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1933
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WEATHER BUREAU

# National Oceanic and Atmospheric Administration

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MR 41062

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE
DIVISION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

**Station,** Balboa Heights, C. Z. ; **Month** February 1918 **191**

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) | Precipitation (Inches) | Temperature of Sea Water | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 73 | 83 | .221 | 0 | 79 | t.cldy. |
| 2 | 90 | 73 | 82 | .26 | .54 | 75 | t.cldy. |
| 3 | 91 | 73 | 82 | .146 | 0 | 76 | t.cldy. |
| 4 | 9 | 71 | 8 | .275 | 0 | 77 | t.cldy. |
| 5 | 92 | 72 | 82 | .311 | 0 | 76 | t.cldy. |
| 6 | 88 | 73 | 8 | .244 | 0 | 79 | t.cldy |
| 7 | 87 | 73 | 8 | .244 | .93 | 8 | cloudy |
| 8 | 89 | 73 | 8 | .114 | 0 | 7 | cloudy |
| 9 | 85 | 72 | 78 | .232 | .58 | 77 | t.cldy. |
| 10 | 7 | 72 | 76 | .175 | .57 | 76 | cloudy |
| 11 | 87 | 72 | 8 | .90 | .07 | 74 | cloudy |
| 12 | 87 | 72 | 8 | .17 | .01 | 74 | t.cldy. |
| 13 | 88 | 72 | 80 | .209 | .10 | 74 | t.cldy. |
| 14 | 89 | 72 | 8 | .240 | 0 | 75 | t.cldy. |
| 15 | 9 | 74 | 82 | .197 | .01 | 76 | t.cldy. |
| 16 | 91 | 74 | 82 | .197 | .02 | 77 | t.cldy. |
| 17 | 91 | 74 | 82 | .236 | 0 | 77 | t.cldy. |
| 18 | 90 | 74 | 82 | .275 | 0 | 77 | t.cldy |
| 19 | 9 | 74 | 82 | .3 | 0 | 76 | t.cldy. |
| 20 | 89 | 74 | 82 | .351 | .06 | 76 | t.cldy. |
| 21 | 9 | 76 | 83 | .2 | 0 | 76 | cloudy |
| 22 | 91 | 77 | 84 | .237 | 0 | 76 | cloudy |
| 23 | 86 | 7 | 8 | .149 | .13 | 77 | cloudy |
| 24 | 9 | 76 | 83 | .136 | 0 | 77 | t.cldy. |
| 25 | 9 | 75 | 82 | .22 | 0 | 76 | t.cldy. |
| 26 | 91 | 76 | 83 | .262 | 0 | 76 | clear |
| 27 | 91 | 76 | 84 | .296 | 0 | 77 | t.cldy. |
| 28 | 91 | 76 | 84 | .295 | 0 | 79 | t.cldy. |
| 29 | | | | | | | |
| | 2481 | 2060 | 2275 | 6.149 | 2.96 | 25662 # | |
| | 89 | 73.6 | 81.2 | .22 | — | 76.4 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL, INCHES)

Mean 29.93 highest 29.93 date 24
Lowest 29.91 date 20th

### TEMPERATURE

Highest 92 date 5th lowest 70 date 1st
Greatest daily range 20 date 1st & 19th
Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 75.5 | 1909 | 79.6 | 1912 | 79.7 | 1915 | 81.3 |
| 1907 | 81.8 | 1910 | 79.6 | 1913 | | 1916 | |
| 1908 | 81.8 | 1911 | 79.8 | 1914 | 81.8 | 1917 | |

Mean of this month for 9 years 8[illegible].3
Absolute maximum for this month for 9 years 94
Absolute minimum for this month for 9 years 88
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 9 years +1.[illegible]
Accumulated excess, (+) or deficiency (—) since January 1
Average daily excess, (+) or deficiency (—) since January 1

### EVAPORATION

Total this month 6.149 inches
Average daily .22 inches

### PRECIPITATION

Total this month 2.96
Greatest precipitation in 24 hours .90 date 9th & 10th
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1885 | 0 | 1893 | 1.52 | 1901 | 1.11 | 1909 | 2.9 |
| 1886 | .12 | 1894 | | 1902 | | 1910 | .63 |
| 1887 | 1 .16 | 1895 | | 1903 | | 1911 | 2.75 |
| 1888 | 2 .12 | 1896 | | 1904 | | 1912 | .06 |
| 1889 | | 1897 | | 1905 | | 1913 | .22 |
| 1890 | | 1898 | 1.17 | 1906 | .33 | 1914 | .02 |
| 1891 | | 1899 | | 1907 | .14 | 1915 | 2.96 |
| 1892 | | 1900 | | 1908 | .24 | 1916 | |
| | | | | | | 1917 | .69 |

Average of this month for 17 years
Total from January 1, 19[illegible] to date 6.[illegible]
Average from January 1 to date 1.91
Excess (+) or deficiency (—) from January 1, 19[illegible] to date as compared with average of corresponding period 15.27

### WIND

Prevailing direction N
Total movement 8.6 miles
Average hourly velocity .1 miles per hour
Maximum velocity (for five minutes) 26th miles per hour
from on

### WEATHER

Number of clear days 1
Number of partly cloudy days 7
Number of cloudy days 11
Days on which .01 inch, or more, of rain occurred

### MISCELLANEOUS PHENOMENA

(DATES OF OCCURRENCE)

Auroras None observed
Halos: Solar 2-5th
Halos: Lunar None observed
Fogs: Light None observed
Fogs: Dense None observed
Thunderstorms None occurred
Earthquakes None observed
Tidal Waves

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time.

# Sum of hourly readings.

97274

4066

# THE PANAMA CANAL

M.S. 58784

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

**Station,** BALBOA HEIGHTS CZ ; **Month** ~~November~~ October 1918. 191

| DATE | TEMPERATURE (Degrees Fahrenheit) MAX. | MIN. | MEAN | EVAPORATION (INCHES) | PRECIPITATION (INCHES) | TEMPERATURE OF SEA WATER | CHARACTER OF DAY |
|---|---|---|---|---|---|---|---|
| 1 | 81 | 71 | 76 | .091 | 1.13 | 80.9 | Cldy |
| 2 | 88 | 72 | 80 | .080 | 0 | 83.4 | Pt Cldy |
| 3 | 90 | 75 | 82 | .031 | .02 | 84.0 | Pt Cldy |
| 4 | 83 | 75 | 79 | .145 | .08 | 83.4 | Cldy |
| 5 | 91 | 74 | 83 | .071 | 0 | 85.1 | Pt Cldy |
| 6 | 88 | 75 | 82 | .126 | 2.20 | 83.0 | Cldy |
| 7 | 90 | 74 | 82 | .090 | .05 | 83.8 | Pt Cldy |
| 8 | 90 | 74 | 82 | .120 | .11 | 83.1 | Pt Cldy |
| 9 | 87 | 76 | 82 | .170 | T | 82.5 | Cldy |
| 10 | 84 | 75 | 78 | .070 | 0 | 82.2 | Pt Cldy |
| 11 | 88 | 74 | 81 | .072 | .05 | 82.6 | Cldy |
| 12 | 89 | 74 | 82 | .130 | .10 | 83.1 | Cldy |
| 13 | 86 | 75 | 80 | .089 | T | 82.9 | Cldy |
| 14 | 85 | 74 | 80 | .169 | .50 | 81.7 | Cldy |
| 15 | 86 | 75 | 80 | .071 | T | 81.5 | Pt Cldy |
| 16 | 86 | 75 | 80 | .095 | T | 81.4 | Pt Cldy |
| 17 | 82 | 76 | 79 | .132 | .08 | 81.6 | Pt Cldy |
| 18 | 85 | 74 | 80 | .106 | .68 | 80.9 | Cldy |
| 19 | 85 | 74 | 80 | .041 | T | 80.9 | Pt Cldy |
| 20 | 87 | 75 | 81 | .150 | 0 | 81.2 | Pt Cldy |
| 21 | 85 | 75 | 79 | .102 | 1.49 | 81.2 | Cldy |
| 22 | 82 | 75 | 78 | .122 | .24 | 80.5 | Cldy |
| 23 | 86 | 76 | 81 | .107 | .11 | 80.8 | Pt Cldy |
| 24 | 84 | 74 | 79 | .090 | .75 | 81.9 | Cldy |
| 25 | 85 | 74 | 78 | .079 | .49 | 82.1 | Cldy |
| 26 | 84 | 72 | 78 | .102 | .35 | 82.3 | Cldy |
| 27 | 85 | 72 | 78 | .094 | .11 | 83.1 | Cldy |
| 28 | 85 | 72 | 78 | .083 | .58 | 82.6 | Cldy |
| 29 | 85 | 72 | 78 | .091 | T | 81.9 | Pt Cldy |
| 30 | 86 | 73 | 80 | .102 | 0 | 83.5 | Clear |
| 31 | 88 | 72 | 80 | .144 | 0 | 83.7 | Pt Cldy |
| Total | 2664 | 2287 | 2475 | 3.190 | 9.16 | 30601* | |
| Mean | 85.9 | 73.8 | 79.8 | .103 | - | 82.3 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time.

*SUM OF BI HOURLY READINGS.

### ATMOSPHERIC PRESSURE

(REDUCED TO SEA LEVEL—INCHES)

Mean 29.834 highest 29.901 date 27

Lowest 29.738 date 15

### TEMPERATURE

Highest 91 date 5 lowest 71 date 1

Greatest daily range 17 date 3

Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 80.0 | 1910 79.2 | 1914 78.5 | 1918 79.8 |
| 1907 80.0 | 1911 79.4 | 1915 77.9 | 1919 |
| 1908 78.0 | 1912 79.0 | 1916 78.0 | 1920 |
| 1909 77.0 | 1913 79.0 | 1917 | 1921 |

Mean of this month for 15 years 79.1

Absolute maximum for this month for 15 years 94

Absolute minimum for this month for 15 years 67

Average daily excess, (+) ~~or deficiency (—)~~ of this month as compared with mean of 15 years plus 0.7

### EVAPORATION

Total this month 3.20 inches

Average daily .103 inches

### PRECIPITATION

Total this month 9.16

Greatest precipitation in 24 hours 2.20 date 6th

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1889 15.71 | 1893 | 1897 | 1901 |
| 1890 6.46 | 1894 | 1898 | 1902 |
| 1891 9.72 | 1895 | 1899 | 1903 |
| 1892 | 1896 | 1900 | 1904 |
| 1893 | 1897 | 1901 | 1905 |
| 1894 | 1898 | 1902 | 1906 |
| 1895 | 1899 | 1903 | 1907 |
| 1896 | 1900 | 1904 | 1908 |
| 1897 | 1901 | 1905 | 1909 |
| 1898 | 1902 | 1906 | 1910 |
| 1899 | 1903 | 1907 | 1911 |
| 1900 | 1904 | 1908 | 1912 |
| 1901 | 1905 | 1909 | 1913 |
| 1902 | 1906 | 1910 | 1914 |
| 1903 | 1907 | 1911 | 1915 |
| 1904 | 1908 | 1912 | 1916 |
| 1905 | 1909 | 1913 | 1917 |
| 1906 | 1910 | 1914 | 1918 |
| 1907 | 1911 | 1915 | 1919 |
| 1908 | 1912 | 1916 | 1920 |
| 1909 | 1913 | 1917 | 1921 |
| 1910 | 1914 | 1918 | |
| 1911 | 1915 | 1919 | |
| 1912 | 1916 | 1920 | |
| 1913 | 1917 | 1921 | |
| 1914 | 1918 | | |
| 1915 | 1919 | | |
| 1916 | 1920 | | |
| 1917 | 1921 | | |
| 1918 | | | |
| 1919 | | | |
| 1920 | | | |
| 1921 | | | |

Average of this month for 15 years 10.25

Total from January 1, 1918 to date 55.56

Average from January 1, to date 55.22

Excess (+) or deficiency (—) from January 1, 1918 to date as compared with average of corresponding period -10.56

### WIND

Prevailing direction W

Total movement 5567 miles

Average hourly velocity 7.2 miles per hour

Maximum velocity (for five minutes) 26 miles per hour

from W on 28

### WEATHER

Number of clear days 1

Number of partly cloudy days 14

Number of cloudy days 16

Days on which .01 inch, or more, of rain occurred 19

### MISCELLANEOUS PHENOMENA

(DATES OF)

Auroras None observed.

Halos: Solar None observed.

Halos: Lunar 10, 15, 15, 16, 17.

Fogs: Light 5, 10.

Fogs: Dense 10. 20, 23, 25, 28.

Thunderstorms 1, 3, 6, 7, 8, 11, 12, 13, 14, 17, 18.

Earthquakes 11, 13, 19, 24, 29.

Tidal Waves None occurred.

4066-2

# THE PANAMA CANAL

MR 77936

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

**Station,** Balboa Heights, Canal Zone ; **Month** August, **1922**

| Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) | Precipitation (Inches) | Temperature of Sea Water | Character of Day |
|---|---|---|---|---|---|---|
| 90 | 75 | 82 | .217 | 0 | 83.3 | Pt.Cldy. |
| 91 | 74 | 82 | .216 | .03 | 83.2 | Pt.Cldy. |
| 87 | 74 | 81 | .074 | .25 | 82.8 | Cldy. |
| 83 | 74 | 78 | .158 | 0 | 81.6 | Cldy. |
| 88 | 74 | 81 | .078 | .01 | 82.1 | Pt.Cldy. |
| 89 | 75 | 82 | .197 | 0 | 82.5 | Pt.Cldy. |
| 86 | 75 | 80 | .221 | 0 | 81.9 | Cldy. |
| 87 | 74 | 80 | .130 | 0 | 80.9 | Pt.Cldy. |
| 87 | 76 | 82 | .149 | 0 | 82.1 | Pt.Cldy. |
| 86 | 76 | 81 | .122 | 0 | 82.2 | Pt.Cldy. |
| 87 | 75 | 81 | .126 | 18 | 82.2 | Pt.Cldy. |
| 85 | 76 | 80 | .197 | 0 | 82.5 | Cldy. |
| 86 | 75 | 80 | .059 | 0 | 81.8 | Pt.Cldy. |
| 83 | 75 | 79 | .098 | .01 | 81.1 | Cldy. |
| 86 | 74 | 80 | .052 | 0 | 81.5 | Pt.Cldy. |
| 88 | 74 | 81 | .106 | 0 | 81.9 | Cldy. |
| 88 | 73 | 80 | .079 | 0 | 82.2 | Pt.Cldy. |
| 88 | 74 | 81 | .157 | T | 82.1 | Pt.Cldy. |
| 89 | 75 | 82 | .118 | T | 82.4 | Pt.Cldy. |
| 89 | 76 | 82 | .138 | .10 | 82.1 | Pt.Cldy. |
| 87 | 76 | 82 | .146 | 0 | 82.0 | Cldy. |
| 85 | 74 | 80 | .075 | .11 | 81.8 | Cldy. |
| 81 | 75 | 78 | .173 | .06 | 81.9 | Pt.Cldy. |
| 84 | 74 | 79 | .075 | .11 | 82.2 | Pt.Cldy. |
| 85 | 72 | 78 | .114 | T | 82.1 | Pt.Cldy. |
| 86 | 74 | 80 | .087 | .03 | 82.4 | Pt.Cldy. |
| 84 | 73 | 78 | .079 | .15 | 82.1 | Pt.Cldy. |
| 86 | 74 | 80 | .079 | .40 | 82.1 | Cldy. |
| 84 | 74 | 79 | .130 | .02 | 81.9 | Cldy. |
| 86 | 73 | 80 | .066 | 0 | 82.2 | Cldy. |
| 90 | 75 | 82 | .063 | T | 83.2 | Cldy. |
| 2681 | 2308 | 2490 | 3.779 | 1.46 | 30559 | |
| 86.5 | 74.5 | 80.3 | .122 | -- | 82.1 | |

### ATMOSPHERIC PRESSURE

(REDUCED TO SEA LEVEL; INCHES)

Mean 29.829; highest 29.910 date 19

Lowest 29.750 date 9

### TEMPERATURE

Highest 91 date 2; lowest 72 date 25

Greatest daily range 17 date 2

Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 80.2 | 1911 | 80.6 | 1916 | 78.1 | 1921 | 80.6 |
| 1907 | 81.0 | 1912 | 80.2 | 1917 | 79.4 | 1922 | 80.5 |
| 1908 | 80.2 | 1913 | 80.2 | 1918 | 80.8 | 1923 | |
| 1909 | 78.7 | 1914 | 81.8 | 1919 | 81.4 | 1924 | |
| 1910 | 79.2 | 1915 | 80.4 | 1920 | 80.3 | 1925 | |

Mean of this month for 17 years 80.2

Absolute maximum for this month for 17 years 94

Absolute minimum for this month for 17 years 69

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 17 years + 0.3

### EVAPORATION

Total this month 3,779 Average daily 122 inches

### PRECIPITATION

Total this month 1.46

Greatest precipitation in 24 hours .42 date 28 & 29

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 7.24 | 1895 | | 1905 | 5.31 | 1915 | 15.24 |
| 1880 | 11.46 | 1896 | | 1906 | 6.43 | 1916 | 10.53 |
| 1881 | 4.49 | 1897 | | 1907 | 7.46 | 1917 | 7.42 |
| 1882 | 4.05 | 1898 | 6.89 | 1908 | 11.48 | 1918 | 3.84 |
| 1889 | | 1899 | 8.60 | 1909 | 6.84 | 1919 | 5.82 |
| 1890 | | 1900 | 6.00 | 1910 | 12.00 | 1920 | 12.22 |
| 1891 | | 1901 | 8.67 | 1911 | 7.21 | 1921 | 9.51 |
| 1892 | | 1902 | | 1912 | 6.33 | 1922 | 1.46 |
| 1893 | | 1903 | | 1913 | 8.20 | 1923 | |
| 1894 | | 1904 | | 1914 | 6.09 | 1924 | |

Average of this month for 26 years 7.52

Total from January 1, 1922 to date 29.26

Average from January 1, to date 36.54

~~Excess or deficiency~~ (—) from January 1, 1922 to date as compared with average of corresponding period — 7.26

### WIND

Prevailing direction W Total movement 5390 miles

Average hourly velocity 7.2 miles per hour

Maximum velocity (for five minutes) 23 miles per hour

from W on 10 —

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 18 Cloudy 13

Days on which .01 inch, or more, of rain occurred 13

### MISCELLANEOUS PHENOMENA

(DATES OF)

Halos: Solar None

Halos: Lunar None

Fogs: Light 8,

Fogs: Dense None

Thunderstorms 8, 9, 11, 14, 16, 17, 20, 21, 31

Earthquakes 2, 9, 23

Tidal Waves None

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time.

4066-4

MR 4699—Panama Canal—3-28-27—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C.Z.; Month January, 1931

| Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (inches) ** | Precipitation (inches) | Temperature of Sea Water. Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 88 | 72 | 79 | .195 | 0 | 77.1 | Clear |
| 87 | 74 | 81 | .165 | T | 77.0 | Pt Cldy |
| 89 | 73 | 80 | .199 | 0 | 77.2 | Pt Cldy |
| 88 | 70 | 78 | .299 | 0 | 76.5 | Pt Cldy |
| 89 | 72 | 79 | .252 | 0 | 77.0 | Pt Cldy |
| 88 | 72 | 79 | .166 | 0 | 77.2 | Pt Cldy |
| 88 | 72 | 78 | .212 | 0 | 76.5 | Pt Cldy |
| 89 | 70 | 78 | .256 | 0 | 75.8 | Clear |
| 90 | 69 | 79 | .247 | 0 | 76.5 | Clear |
| 89 | 72 | 79 | .255 | 0 | 76.3 | Clear |
| 91 | 70 | 78 | .249 | 0 | 76.8 | Clear |
| 90 | 71 | 79 | .133 | T | 76.5 | Pt Cldy |
| 90 | 73 | 80 | .213 | 0 | 76.2 | Clear |
| 89 | 74 | 80 | .323 | 0 | 75.4 | Clear |
| 89 | 73 | 79 | .350 | 0 | 74.8 | Pt Cldy |
| 89 | 73 | 79 | .303 | T | 74.5 | Pt Cldy |
| 90 | 72 | 80 | .248 | 0 | 73.8 | Pt Cldy |
| 91 | 74 | 80 | .236 | 0 | 74.5 | Pt Cldy |
| 89 | 76 | 81 | .276 | 0 | 73.9 | Pt Cldy |
| 89 | 74 | 80 | .295 | 0 | 74.5 | Pt Cldy |
| 90 | 74 | 81 | .250 | 0 | 74.4 | Pt Cldy |
| 89 | 74 | 80 | .247 | 0 | 72.9 | Pt Cldy |
| 90 | 71 | 80 | .398 | T | 73.8 | Clear |
| 90 | 72 | 80 | .271 | 0 | 75.1 | Clear |
| 90 | 72 | 80 | .382 | 0 | 75.3 | Clear |
| 88 | 70 | 78 | .335 | 0 | 75.6 | Clear |
| 89 | 71 | 79 | .354 | 0 | 76.0 | Clear |
| 89 | 70 | 79 | .264 | 0 | 75.2 | Clear |
| 90 | 72 | 80 | .307 | 0 | 74.9 | Pt Cldy |
| 90 | 71 | 81 | .284 | 0 | 74.6 | Pt Cldy |
| 90 | 74 | 80 | .323 | 0 | 74.8 | Pt Cldy |
| 2765 | 2234 | * | 8.375 | T | * | |
| 88.8 | 72.1 | 79.5 | .270 | | 75.5 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

Mean 29.842; highest 29.950 date 12 and 17 224

Lowest 29.710 date

### TEMPERATURE

Highest 91 date 11th 21; lowest 69 date 9th & 11

Greatest daily range date

Bihourly Mean for this month is:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.0 | 1913 | 78.8 | 1920 | 78.9 | 1927 | 78.5 |
| 1907 | 78.1 | 1914 | 78.5 | 1921 | 78.8 | 1928 | 78.6 |
| 1908 | 79.4 | 1915 | 79.6 | 1922 | 78.5 | 1929 | 77.8 |
| 1909 | 77.4 | 1916 | 78.4 | 1923 | 77.1 | 1930 | 78.2 |
| 1910 | 77.1 | 1917 | 78.7 | 1924 | 78.8 | 1931 | 79.5 |
| 1911 | 78.2 | 1918 | 78.9 | 1925 | 78.9 | 1932 | |
| 1912 | 78.9 | 1919 | 78.2 | 1926 | 79.3 | | |

Mean of this month for 26 years 93

Absolute maximum for this month for 26 years 65

Absolute minimum for this month for years

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 26 years 91.2

### EVAPORATION

Total this month 8.375 Average daily .270 inches

### PRECIPITATION

Total this month T

Greatest precipitation in 24 hours T date 2nd

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | .04 | 1897 | — | 1909 | 2.90 | 1921 | .88 |
| 1880 | 1.89 | 1898 | — | 1910 | 1.22 | 1922 | 1.73 |
| 1881 | .16 | 1899 | 5.61 | 1911 | .55 | 1923 | .80 |
| 1882 | 0 | 1900 | .76 | 1912 | T | 1924 | T |
| 1888 | — | 1901 | 0 | 1913 | .65 | 1925 | 1.44 |
| 1889 | — | 1902 | — | 1914 | .32 | 1926 | .01 |
| 1890 | — | 1903 | — | 1915 | 2.12 | 1927 | .18 |
| 1891 | — | 1904 | — | 1916 | 1.41 | 1928 | .02 |
| 1892 | — | 1905 | .43 | 1917 | .15 | 1929 | .17 |
| 1893 | — | 1906 | .29 | 1918 | 1.78 | 1930 | .05 |
| 1894 | — | 1907 | .12 | 1919 | .28 | 1931 | T |
| 1895 | — | 1908 | .55 | 1920 | T | 1932 | .79 |
| 1896 | | | | | | | |

Average of this month for 51 years T

Total from January 1, 19 to date .79

Average from January 1, to date 51

Excess (+) or deficiency (—) from January 1, 19 .79 date as compared with average of corresponding period

### WIND

Prevailing direction N Total movement 7259 miles

Average hourly velocity 9.8 27 miles per hour

Maximum velocity (for five minutes) miles per hour

from N on 22nd

### (WEATHER No. of days)

Clear 13 Pt. Cloudy 18 Cloudy 0

Days on which .01 inch, or more, of rain occurred

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar 0

Fogs: Light 0

Fogs: Dense 0

Thunderstorms 8, 11, 14, 16, 17, 28.

Earthquakes

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

For 24 hour period ending 8:00 A.M.

# THE PANAMA CANAL

MR 4699—Panama Canal—3-28-27—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

*Station,* Balboa Heights, C. Z. ; *Month* February, 1951 , ~~192~~

| | TEMPERATURE (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) * * | Precipitation (Inches) | Temperature of Sea Water. Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 72 | 80 | .217 | 0 | 74.8 | Pt.Cldy. |
| 2 | 92 | 71 | 80 | .315 | 0 | 74.4 | Pt.Cldy. |
| 3 | 90 | 74 | 80 | .370 | 0 | 74.8 | Pt.Cldy. |
| 4 | 89 | 72 | 79 | .331 | T | 75.2 | Pt.Cldy. |
| 5 | 89 | 72 | 79 | .327 | T | 74.6 | Pt.Cldy. |
| 6 | 89 | 72 | 79 | .311 | 0 | 73.6 | Pt.Cldy. |
| 7 | 88 | 70 | 78 | .382 | T | 72.8 | Pt.Cldy. |
| 8 | 90 | 73 | 80 | .251 | 0 | 74.0 | Pt.Cldy. |
| 9 | 92 | 73 | 80 | .350 | 0 | 75.0 | Pt.Cldy. |
| 10 | 90 | 73 | 80 | .240 | T | 75.2 | Pt.Cldy. |
| 11 | 89 | 73 | 79 | .205 | T | 74.5 | Pt.Cldy. |
| 12 | 91 | 72 | 80 | .248 | 0 | 73.4 | Pt.Cldy. |
| 13 | 89 | 72 | 80 | .311 | T | 73.3 | Pt.Cldy. |
| 14 | 91 | 74 | 80 | .300 | 0 | 73.8 | Pt.Cldy. |
| 15 | 92 | 71 | 80 | .256 | 0 | 72.7 | Pt.Cldy. |
| 16 | 88 | 71 | 78 | .350 | 0 | 73.4 | Pt.Cldy. |
| 17 | 90 | 70 | 80 | .153 | 0 | 74.8 | Clear |
| 18 | 92 | 71 | 80 | .166 | T | 75.2 | Pt.Cldy. |
| 19 | 90 | 72 | 79 | .201 | T | 74.5 | Pt.Cldy. |
| 20 | 90 | 70 | 79 | .209 | 0 | 74.8 | Pt.Cldy. |
| 21 | 91 | 71 | 80 | .272 | 0 | 74.2 | Pt.Cldy. |
| 22 | 90 | 70 | 79 | .315 | 0 | 74.7 | Pt.Cldy. |
| 23 | 89 | 71 | 79 | .346 | T | 74.8 | Pt.Cldy. |
| 24 | 90 | 74 | 80 | .252 | 0 | 75.2 | Pt.Cldy. |
| 25 | 89 | 74 | 81 | .267 | 0 | 75.2 | Cloudy |
| 26 | 89 | 76 | 82 | .284 | 0 | 75.2 | Pt.Cldy. |
| 27 | 90 | 77 | 81 | .332 | 0 | 74.1 | Pt.Cldy. |
| 28 | 93 | 76 | 85 | .312 | T | 74.3 | Cloudy. |
| | 2232 | 2027* | | 7.943 | T | * | |
| | 80.3 | 72.4 | 78.3 | .284 | | 74.4 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

* * For 24-hour period ending at 8:00 A.M.

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

Mean 29.853 ; highest 29.960 date 17th

Lowest 29.700 date 9th

### TEMPERATURE

Highest 93 date 28th ; lowest 70 date 7th

Greatest daily range 21 date 18th

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.4 | 1913 | 78.5 | 1920 | 78.8 | 1927 | 77.9 |
| 1907 | 76.7 | 1914 | 80.0 | 1921 | 78.1 | 1928 | 80.0 |
| 1908 | 79.9 | 1915 | 79.4 | 1922 | 79.7 | 1929 | 78.8 |
| 1909 | 78.4 | 1916 | 77.6 | 1923 | 77.9 | 1930 | 78.3 |
| 1910 | 77.5 | 1917 | 78.4 | 1924 | 78.5 | 1931 | 79.8 |
| 1911 | 77.9 | 1918 | 78.1 | 1925 | 77.1 | 1932 | |
| 1912 | 79.3 | 1919 | 77.9 | 1926 | 80.0 | 1933 | |

Mean of this month for 26 years 78.5

Absolute maximum for this month for 26 years 95

Absolute minimum for this month for 26 years 64

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 26 years + 1.3

### EVAPORATION

Total this month 7.943 Average daily .284 inches

### PRECIPITATION

Total this month T

Greatest precipitation in 24 hours T date 4th

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1889 | 2.52 | 1897 | | 1909 | 2.90 | 1921 | 2.37 |
| 1890 | .12 | 1898 | | 1910 | .45 | 1922 | 2.05 |
| 1891 | .16 | 1899 | 1.17 | 1911 | 2.75 | 1923 | T |
| 1892 | .12 | 1900 | 0 | 1912 | .08 | 1924 | .05 |
| 1889 | | 1901 | 1.11 | 1913 | .22 | 1925 | .07 |
| 1890 | | 1902 | | 1914 | .02 | 1926 | .07 |
| 1891 | | 1903 | | 1915 | 2.96 | 1927 | 1.99 |
| 1892 | | 1904 | | 1916 | 1.48 | 1928 | .32 |
| 1893 | | 1905 | | 1917 | .19 | 1929 | .02 |
| 1894 | | 1906 | .33 | 1918 | T | 1930 | .85 |
| 1895 | | 1907 | .04 | 1919 | T | 1931 | T |
| 1896 | | 1908 | .24 | 1920 | T | 1932 | |

Average of this month for 33 years .75

Total from January 1, 19 31 to date T

Average from January 1, to date 1.54

Excess (+) or deficiency (—) from January 1, 19 31 to date as compared with average of corresponding period - 1.54

### WIND

Prevailing direction N Total movement 6510 miles

Average hourly velocity 9.7 miles per hour

Maximum velocity (for five minutes) 25 miles per hour

from NW on 26

### (WEATHER No. of days)

Clear 1 Pt. Cloudy 24 Cloudy 3

Days on which .01 inch, or more, of rain occurred

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None

Fogs: Light 16th

Fogs: Dense 18th

Thunderstorms 24th

Earthquakes 5, 7, 10, 13, 21 & 24.

# THE PANAMA CANAL

MR 4699—Panama Canal—3-28-27—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

**Station,** Balboa Heights, C. Z. ; **Month** April 1931 , ~~1932~~

| | TEMPERATURE (Degrees Fahrenheit) Max | Min. | Mean Bihourly | EVAPORATION (INCHES) * * | PRECIPITATION (INCHES) | TEMPERATURE OF SEA WATER. BIHOURLY MEAN | CHARACTER OF DAY |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 76 | 81 | .162 | .01 | 76.2 | Pt.Cldy |
| 2 | 94 | 77 | 84 | .236 | 0 | 76.4 | Pt.Cldy |
| 3 | 95 | 76 | 84 | .291 | 0 | 76.2 | Pt.Cldy |
| 4 | 93 | 78 | 84 | .363 | 0 | 76.2 | Pt.Cldy |
| 5 | 88 | 77 | 80 | .350 | .07 | 76.8 | Pt.Cldy |
| 6 | 94 | 75 | 82 | .117 | 0 | 77.8 | Pt.Cldy |
| 7 | 94 | 77 | 85 | .319 | 0 | 77.9 | Pt.Cldy |
| 8 | 94 | 75 | 84 | .381 | 0 | 78.2 | Pt.Cldy |
| 9 | 93 | 76 | 83 | .374 | T | 78.1 | Pt.Cldy |
| 10 | 93 | 78 | 84 | .268 | 0 | 78.0 | Pt.Cldy |
| 11 | 90 | 75 | 82 | .414 | T | 77.8 | Cloudy |
| 12 | 91 | 75 | 80 | .208 | .21 | 77.8 | Cloudy |
| 13 | 89 | 74 | 80 | .177 | .23 | 77.8 | Cloudy |
| 14 | 90 | 73 | 81 | .162 | 0 | 78.0 | Pt.Cldy |
| 15 | 90 | 73 | 80 | .208 | .67 | 77.2 | Pt.Cldy |
| 16 | 92 | 73 | 81 | .186 | T | 77.6 | Pt.Cldy |
| 17 | 89 | 76 | 81 | .228 | T | 77.7 | Cloudy |
| 18 | 84 | 77 | 79 | .224 | T | 78.4 | Cloudy |
| 19 | 89 | 74 | 80 | .138 | .08 | 78.8 | Pt.Cldy |
| 20 | 92 | 73 | 81 | .177 | 0 | 80.1 | Clear |
| 21 | 91 | 73 | 81 | .315 | 0 | 80.1 | Pt.Cldy |
| 22 | 91 | 76 | 81 | .327 | 0 | 79.4 | Pt.Cldy |
| 23 | 94 | 76 | 83 | .197 | 0 | 78.8 | Pt.Cldy |
| 24 | 93 | 77 | 82 | .382 | T | 77.3 | Pt.Cldy |
| 25 | 94 | 76 | 84 | .252 | 0 | 77.0 | Pt.Cldy |
| 26 | 90 | 78 | 83 | .271 | 0 | 78.0 | Pt.Cldy |
| 27 | 94 | 77 | 84 | .193 | T | 77.2 | Cloudy |
| 28 | 89 | 78 | 83 | .205 | .01 | 75.6 | Cloudy |
| 29 | 94 | 77 | 84 | .110 | 0 | 74.7 | Pt.Cldy |
| 30 | 91 | 77 | 83 | .327 | .17 | 75.2 | Cloudy |
| | 2742 | 2278 | * - | 7.562 | 1.45 | * - | |
| | 91.4 | 75.8 | 82.1 | .252 | - | 77.5 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

* * For 24-hour period ending at 8:00 A.M.

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

Mean 29.814 ; highest 29.930 date 13
Lowest 29.700 date 26

### TEMPERATURE

Highest 95 date 3 lowest 73 date 20
Greatest daily range 19 date 20
Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 80.8 | 1913 80.3 | 1920 81.1 | 1927 79.8 |
| 1907 79.6 | 1914 81.1 | 1921 79.8 | 1928 80.7 |
| 1908 80.8 | 1915 79.4 | 1922 81.6 | 1929 80.1 |
| 1909 79.6 | 1916 79.7 | 1923 79.8 | 1930 79.9 |
| 1910 78.5 | 1917 78.9 | 1924 80.5 | 1931 82.1 |
| 1911 79.5 | 1918 79.0 | 1925 79.9 | 1932 |
| 1912 80.6 | 1919 80.1 | 1926 81.8 | 1933 |

Mean of this month for 26 years 80.2
Absolute maximum for this month for 26 years 97
Absolute minimum for this month for 26 years 64
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 26 years + 1.9

### EVAPORATION

Total this month 7.562 Average daily .252 inches

### PRECIPITATION

Total this month 1.45
Greatest precipitation in 24 hours .67 date 15
Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1879 5.55 | 1897 | 1909 2.92 | 1921 1.19 |
| 1880 1.61 | 1898 | 1910 3.71 | 1922 .16 |
| 1881 3.23 | 1899 0 | 1911 6.34 | 1923 .83 |
| 1882 .98 | 1900 2.25 | 1912 2.68 | 1924 3.72 |
| 1889 | 1901 .25 | 1913 .03 | 1925 2.63 |
| 1890 | 1902 | 1914 4.80 | 1926 .08 |
| 1891 | 1903 | 1915 5.37 | 1927 4.67 |
| 1892 | 1904 | 1916 2.84 | 1928 3.38 |
| 1893 | 1905 | 1917 2.24 | 1929 .43 |
| 1894 | 1906 7.77 | 1918 4.52 | 1930 6.78 |
| 1895 | 1907 T | 1919 6.43 | 1931 1.45 |
| 1896 | 1908 1.37 | 1920 3.02 | 1932 |

Average of this month for 33 years 2.83
Total from January 1, 1931 to date 2.15
Average from January 1, to date 5.12
Excess (+) or deficiency (—) from January 1, 19..... to date as compared with average of corresponding period -2.97

### WIND

Prevailing direction NW Total movement 6592 miles
Average hourly velocity 9.2 miles per hour
Maximum velocity (for five minutes) 25 miles per hour
from NW on 30

### (WEATHER No. of days)

Clear 1 Pt. Cloudy 21 Cloudy 8
Days on which .01 inch, or more, of rain occurred 8

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar 27th & 30th
Fogs: Light 0
Fogs: Dense 0
Thunderstorms 30th
Earthquakes 10th, 13th, 19th & 24th

# THE PANAMA CANAL

MR 19178—Panama Canal—3-12-30—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

*Station,* Balboa Heights, C. Z. ; *Month* June, *1931.*

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 75 | 80 | .102 | .02 | 83.9 | Cloudy |
| 2 | 81 | 76 | 78 | .087 | .28 | 83.5 | Cloudy |
| 3 | 80 | 75 | 77 | .075 | .40 | 83.0 | Cloudy |
| 4 | 85 | 74 | 78 | .035 | 1.59 | 83.1 | Cloudy |
| 5 | 88 | 75 | 81 | .048 | 0 | 83.0 | Pt Cldy |
| 6 | 85 | 75 | 80 | .078 | 0 | 83.0 | Cloudy |
| 7 | 91 | 76 | 83 | .248 | 0 | 83.4 | Cloudy |
| 8 | 86 | 77 | 80 | .221 | .82 | 83.2 | Cloudy |
| 9 | 84 | 74 | 79 | .098 | T | 83.8 | Cloudy |
| 10 | 86 | 75 | 79 | .075 | 0 | 85.0 | Cloudy |
| 11 | 89 | 75 | 82 | .079 | .14 | 85.2 | Cloudy |
| 12 | 91 | 73 | 80 | .118 | 1.25 | 84.5 | Cloudy |
| 13 | 85 | 77 | 80 | .070 | .01 | 83.8 | Cloudy |
| 14 | 87 | 77 | 81 | .079 | T | 83.4 | Cloudy |
| 15 | 88 | 76 | 80 | .118 | .47 | 83.2 | Cloudy |
| 16 | 88 | 76 | 78 | .094 | .43 | 83.2 | Cloudy |
| 17 | 85 | 74 | 78 | .079 | .02 | 83.3 | Cloudy |
| 18 | 87 | 75 | 80 | .067 | .01 | 83.6 | Cloudy |
| 19 | 85 | 75 | 79 | .091 | .21 | 83.5 | Cloudy |
| 20 | 83 | 75 | 79 | .102 | .06 | 83.4 | Cloudy |
| 21 | 83 | 75 | 79 | .110 | 1.09 | 82.8 | Cloudy |
| 22 | 81 | 75 | 77 | .055 | .24 | 81.9 | Cloudy |
| 23 | 87 | 74 | 79 | .071 | .02 | 83.4 | Cloudy |
| 24 | 86 | 75 | 80 | .055 | .28 | 85.2 | Cloudy |
| 25 | 86 | 76 | 80 | .094 | .05 | 85.2 | Cloudy |
| 26 | 87 | 75 | 79 | .091 | 0 | 85.2 | Cloudy |
| 27 | 85 | 74 | 80 | .110 | .15 | 84.2 | Cloudy |
| 28 | 85 | 75 | 78 | .059 | .11 | 84.2 | Cloudy |
| 29 | 86 | 76 | 81 | .091 | 0 | 82.9 | Cloudy |
| 30 | 83 | 76 | 78 | .110 | .16 | 83.1 | Cloudy |
| | 2571 | 2254 | * | 2.810 | 7.81 | * ---- | |
| | 85.7 | 75.1 | 79.5 | .094 | ---- | 83.7 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)
Mean *29.843 ; highest 29.980 date 3d
Lowest 29.700 date 27th

### TEMPERATURE

Highest 91 date 7th ; lowest 73 date 12th
Greatest daily range 18 date 12th
Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 78.7 | 1913 79.0 | 1920 79.2 | 1927 78.3 |
| 1907 78.2 | 1914 79.2 | 1921 78.5 | 1928 78.4 |
| 1908 78.5 | 1915 79.6 | 1922 78.4 | 1929 78.5 |
| 1909 77.4 | 1916 77.9 | 1923 78.7 | 1930 79.4 |
| 1910 77.8 | 1917 77.6 | 1924 77.8 | 1931 79.5 |
| 1911 78.8 | 1918 78.5 | 1925 78.8 | 1932 |
| 1912 79.1 | 1919 79.3 | 1926 79.5 | 1933 |

Mean of this month for 26 years 78.6
Absolute maximum for this month for 26 years 95
Absolute minimum for this month for 26 years 70
Average daily excess, (~~+) or deficiency (—~~) of this month as compared with mean of 26 years 40.9

### EVAPORATION

Total this month 2.810 Average daily .094 inches

### PRECIPITATION

Total this month 7.81
Greatest precipitation in 24 hours 1.94 date 3 & 4
Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1889 | 1897 | 1909 9.90 | 1921 7.86 |
| 1890 6.46 | 1898 | 1910 8.82 | 1922 7.92 |
| 1891 5.00 | 1899 | 1911 3.40 | 1923 5.59 |
| 1892 13.78 | 1900 8.48 | 1912 5.80 | 1924 8.41 |
| 1893 6.18 | 1901 8.93 | 1913 8.15 | 1925 18.34 |
| 1894 | 1902 12.65 | 1914 7.28 | 1926 12.33 |
| 1895 | 1903 | 1915 2.85 | 1927 10.83 |
| 1896 | 1904 | 1916 4.39 | 1928 8.78 |
| 1897 | 1905 7.33 | 1917 7.35 | 1929 9.34 |
| 1898 | 1906 8.57 | 1918 5.20 | 1930 2.50 |
| 1899 | 1907 12.64 | 1919 8.93 | 1931 7.81 |
| 1900 | 1908 4.28 | 1920 4.83 | 1932 |

Average of this month for 34 years 7.97
Total from January 1, 19 ..... to date 23.11
Average from January 1, to date 21.02
Excess (+) or deficiency (—) from January 1, 19 ..... to date as compared with average of corresponding period 12.09

### WIND

Prevailing direction N W Total movement 3465 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity (for five minutes) 25 miles per hour
from N W on 12th

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 1 Cloudy 29
Days on which .01 inch, or more, of rain occurred 22

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None
Fogs: Light 9th
Fogs: Dense None
Thunderstorms 1, 2, 3, 4, 5, 7, 8, 10, 11, 12, 25, 26
Earthquakes 8, 16, 27, & 30.

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 4699—Panama Canal—3-28-27—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month JULY, 1931., 192~~1~~1931.

| TEMPERATURE (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) *X* | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 86 | 75 | 80 | .067 | .19 | 83.8 | Pt.Cldy. |
| 85 | 75 | 78 | .106 | .32 | 84.1 | Cloudy |
| 85 | 75 | 78 | .071 | 2.31 | 83.8 | Cloudy |
| 84 | 75 | 79 | .134 | .05 | 82.4 | Cloudy |
| 82 | 75 | 78 | .079 | .20 | 83.5 | Cloudy |
| 83 | 75 | 78 | .106 | .46 | 83.0 | Cloudy |
| 82 | 73 | 77 | .059 | T | 83.2 | Pt.Cldy. |
| 84 | 74 | 79 | .055 | .18 | 83.1 | Pt.Cldy. |
| 86 | 73 | 79 | .087 | 0 | 84.6 | Cloudy |
| 86 | 76 | 80 | .086 | .02 | 84.8 | Pt.Cldy. |
| 87 | 74 | 81 | .107 | .02 | 85.2 | Pt.Cldy. |
| 85 | 75 | 79 | .114 | .01 | 85.2 | Cloudy |
| 79 | 74 | 78 | .079 | .09 | 83.6 | Cloudy |
| 87 | 72 | 78 | .043 | 0 | 84.4 | Pt.Cldy. |
| 85 | 75 | 78 | .067 | .23 | 83.3 | Cloudy |
| 85 | 74 | 79 | .090 | .04 | 84.0 | Cloudy |
| 83 | 77 | 79 | .099 | .02 | 84.0 | Cloudy |
| 86 | 73 | 79 | .086 | 0 | 84.2 | Pt.Cldy. |
| 85 | 74 | 79 | .115 | .01 | 84.2 | Cloudy |
| 87 | 75 | 78 | .087 | 1.77 | 82.8 | Cloudy |
| 82 | 73 | 77 | .082 | .03 | 81.8 | Cloudy |
| 84 | 75 | 78 | .095 | .92 | 81.0 | Cloudy |
| 86 | 73 | 78 | .047 | 1.01 | 82.2 | Cloudy |
| 82 | 74 | 77 | .065 | .32 | 82.0 | Cloudy |
| 84 | 74 | 77 | .065 | .87 | 82.3 | Cloudy |
| 83 | 73 | 75 | .051 | 1.26 | 81.2 | Cloudy |
| 83 | 73 | 78 | .071 | .02 | 80.7 | Cloudy |
| 84 | 77 | 79 | .102 | .01 | 80.5 | Cloudy |
| 85 | 73 | 78 | .051 | .09 | 80.7 | Pt.Cldy. |
| 86 | 73 | 78 | .126 | .01 | 80.9 | Pt.Cldy. |
| 87 | 73 | 79 | .114 | 0 | 82.8 | Pt.Cldy. |
| 2619 | 2306 | * — | 2.604 | 10.46 | * — | |
| 84.5 | 74.4 | 78.4 | .084 | --- | 83.0 | |

NOTE.—"T" Trace. *X* Total 24 hour period ending at 8:00 a.m. All data in 75th meridian time. *Sum and Mean of Bihourly values.

### * ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

Mean 29.832 highest 29.980 date 5
Lowest 29.730 date 23

### TEMPERATURE

Highest 87 date 15 lowest 72 date 14
Greatest daily range 15 date 14
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.0 | 1913 | 79.1 | 1920 | 78.9 | 1927 | 78.7 |
| 1907 | 78.6 | 1914 | 80.7 | 1921 | 78.9 | 1928 | 79.9 |
| 1908 | 78.3 | 1915 | 78.4 | 1922 | 79.8 | 1929 | 79.0 |
| 1909 | 77.5 | 1916 | 77.4 | 1923 | 79.3 | 1930 | 80.0 |
| 1910 | 76.6 | 1917 | 77.8 | 1924 | 78.2 | 1931 | 79.4 |
| 1911 | 79.9 | 1918 | 79.4 | 1925 | 78.3 | 1932 | |
| 1912 | 78.9 | 1919 | 79.1 | 1926 | 78.9 | 1933 | |

Mean of this month for 26 years 78.8
Absolute maximum for this month for 26 years 95
Absolute minimum for this month for 26 years 67
Average [redacted] or deficiency (—) of this month as compared with mean of 26 years -0.4

### EVAPORATION

Total this month 2.604 Average daily .084 inches

### PRECIPITATION

Total this month 10.46
Greatest precipitation in 24 hours 2.36 date 3 & 4
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 7.91 | 1897 | | 1909 | 9.01 | 1921 | 8.07 |
| 1880 | 9.88 | 1898 | 3.35 | 1910 | 9.26 | 1922 | 5.08 |
| 1881 | 7.20 | 1899 | 8.21 | 1911 | 5.78 | 1923 | 3.16 |
| 1882 | 5.35 | 1900 | 15.82 | 1912 | 10.25 | 1924 | 5.97 |
| 1889 | | 1901 | 14.11 | 1913 | 4.85 | 1925 | 3.83 |
| 1890 | | 1902 | | 1914 | 4.32 | 1926 | 9.93 |
| 1891 | | 1903 | | 1915 | 6.93 | 1927 | 8.22 |
| 1892 | | 1904 | | 1916 | 10.13 | 1928 | 7.91 |
| 1893 | | 1905 | 4.31 | 1917 | 10.17 | 1929 | 5.22 |
| 1894 | | 1906 | 9.01 | 1918 | 5.13 | 1930 | 4.04 |
| 1895 | | 1907 | 4.28 | 1919 | 4.75 | 1931 | 10.46 |
| 1896 | | 1908 | 6.83 | 1920 | 6.18 | 1932 | |

Average of this month for 35 years 7.28
Total from January 1, 1931 to date 33.57
Average from January 1, to date 28.30
Excess (+[redacted]) from January 1, 1931 to date as compared with average of corresponding period 5.27

### WIND

Prevailing direction S Total movement 3466 miles
Average hourly velocity 4.7 miles per hour
Maximum velocity (for five minutes) 20 miles per hour
from S on 20, 26

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 9 Cloudy 22
Days on which .01 inch, or more, of rain occurred 21

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar 21., 24.
Fogs: Light none
Fogs: Dense 31
Thunderstorms 3, 4, 9, 10, 13, 14, 23, 24.
Earthquakes 8., 17., 27., 31.

# THE PANAMA CANAL

MR 19178—Panama Canal—3-12-30—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month August, 1931

| Date | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water. Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 80 | .087 | 0 | 83.5 | Cloudy |
| 2 | 87 | 75 | 80 | .110 | .26 | 83.9 | Cloudy |
| 3 | 85 | 75 | 79 | .098 | 0 | 83.7 | Cloudy |
| 4 | 89 | 75 | 80 | .079 | 0 | 83.6 | Cloudy |
| 5 | 90 | 74 | 81 | .118 | .15 | 84.1 | Cloudy |
| 6 | 85 | 74 | 79 | .118 | .09 | 84.7 | Cloudy |
| 7 | 89 | 74 | 81 | .091 | 0 | 84.3 | Pt.Cldy |
| 8 | 89 | 72 | 80 | .146 | .07 | 83.2 | Cloudy |
| 9 | 88 | 74 | 80 | .114 | .17 | 83.8 | Pt.Cldy |
| 10 | 88 | 76 | 80 | .090 | 0 | 83.4 | Pt.Cldy |
| 11 | 84 | 75 | 79 | .150 | 0 | 82.7 | Pt.Cldy |
| 12 | 87 | 74 | 80 | .059 | T | 81.9 | Pt.Cldy |
| 13 | 86 | 75 | 80 | .098 | .61 | 82.2 | Pt.Cldy |
| 14 | 89 | 76 | 80 | .119 | .12 | 82.1 | Cloudy |
| 15 | 89 | 75 | 81 | .118 | 0 | 82.6 | Pt.Cldy |
| 16 | 83 | 76 | 78 | .078 | 0 | 82.7 | Pt.Cldy |
| 17 | 89 | 74 | 79 | .079 | 0 | 82.9 | Cloudy |
| 18 | 90 | 75 | 80 | .079 | T | 83.4 | Pt.Cldy |
| 19 | 90 | 76 | 82 | .118 | T | 84.0 | Cloudy |
| 20 | 90 | 77 | 82 | .118 | .26 | 84.8 | Cloudy |
| 21 | 92 | 77 | 82 | .079 | 0 | 84.5 | Pt.Cldy |
| 22 | 89 | 75 | 81 | .157 | .61 | 84.7 | Cloudy |
| 23 | 81 | 75 | 77 | .256 | .47 | 83.5 | Cloudy |
| 24 | 86 | 75 | 79 | .055 | .07 | 83.8 | Cloudy |
| 25 | 85 | 75 | 78 | .079 | T | 83.9 | Cloudy |
| 26 | 85 | 72 | 78 | .088 | .51 | 82.5 | Cloudy |
| 27 | 85 | 75 | 79 | .059 | .35 | 82.0 | Cloudy |
| 28 | 89 | 76 | 80 | .040 | .43 | 82.6 | Cloudy |
| 29 | 88 | 76 | 80 | .078 | 0 | 82.7 | Cloudy |
| 30 | 87 | 75 | 80 | .099 | .01 | 83.4 | Pt.Cldy |
| 31 | 88 | 75 | 80 | .118 | .10 | 83.8 | Cloudy |
| Total | 2708 | 2325 | * --- | 3.175 | 4.28 | * --- | |
| Mean | 87.4 | 74.9 | 79.8 | .102 | --- | 83.4 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.821 ; highest 29.940 date 3rd
Lowest 29.710 date 29th

### TEMPERATURE

Highest 92 date 21st ; lowest 72 date 8th
Greatest daily range 17 date 8th.
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.1 | 1913 | 78.8 | 1920 | 78.7 | 1927 | 78.8 |
| 1907 | 78.6 | 1914 | 79.4 | 1921 | 78.8 | 1928 | 78.2 |
| 1908 | 78.6 | 1915 | 79.0 | 1922 | 79.1 | 1929 | 77.7 |
| 1909 | 77.8 | 1916 | 77.1 | 1923 | 78.7 | 1930 | 79.3 |
| 1910 | 77.4 | 1917 | 77.6 | 1924 | 77.7 | 1931 | 79.8 |
| 1911 | 78.5 | 1918 | 79.1 | 1925 | 79.1 | 1932 | |
| 1912 | 78.8 | 1919 | 79.5 | 1926 | 79.2 | 1933 | |

Mean of this month for 26 years 78.6
Absolute maximum for this month for 26 years 94
Absolute minimum for this month for 26 years 68
Average daily excess, ~~[illegible]~~ of this month as compared with mean of 26 years +1.2

### EVAPORATION

Total this month 3.175 Average daily .102 inches

### PRECIPITATION

Total this month 4.28
Greatest precipitation in 24 hours 1.09 date 22d & 23d
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1887 | 7.24 | 1897 | | 1909 | 6.84 | 1921 | 9.51 |
| 1888 | 11.46 | 1898 | 6.89 | 1910 | 12.00 | 1922 | 1.46 |
| 1889 | 4.49 | 1899 | 8.60 | 1911 | 7.21 | 1923 | 5.37 |
| 1890 | 4.05 | 1900 | 6.00 | 1912 | 5.33 | 1924 | 14.46 |
| 1889 | --- | 1901 | 5.67 | 1913 | 5.20 | 1925 | 10.83 |
| 1890 | --- | 1902 | --- | 1914 | 6.09 | 1926 | 10.45 |
| 1891 | --- | 1903 | --- | 1915 | 15.24 | 1927 | 7.76 |
| 1892 | --- | 1904 | --- | 1916 | 10.53 | 1928 | 6.87 |
| 1893 | --- | 1905 | 5.31 | 1917 | 7.42 | 1929 | 11.96 |
| 1894 | --- | 1906 | 6.43 | 1918 | 3.84 | 1930 | 4.34 |
| 1895 | --- | 1907 | 7.46 | 1919 | 5.82 | 1931 | 4.28 |
| 1896 | --- | 1908 | 11.48 | 1920 | 12.22 | 1932 | |

Average of this month for ~~[illegible]~~ 35 years 7.92
Total from January 1, 1931 to date 57.85
Average from January 1, to date 56.22
Excess (+) or ~~deficiency (−)~~ from January 1, 1931 to date as compared with average of corresponding period +1.63

### WIND

Prevailing direction NW Total movement 4393 miles
Average hourly velocity 5.9 miles per hour
Maximum velocity (for five minutes) 20 miles per hour
from NE N on 28th 10, 14, 21 & 30

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 11 Cloudy 20
Days on which .01 inch, or more, of rain occurred 16

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None
Fogs: Light 3rd
Fogs: Dense 2nd (28, 29, 30, 31.
Thunderstorms 1, 2, 4, 14, 17, 19, 20, 21, 22, 24, 26,
Earthquakes 10, 13 and 16

066-5

# THE PANAMA CANAL

MR 19178—Panama Canal—3-12-30—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

*Station,* Balboa Heights, C. Z. ; *Month* September, *193*1

| TEMPERATURE (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) ** | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 85 | 76 | 78 | .138 | 0 | 83.3 | Cldy. |
| 85 | 74 | 78 | .086 | 0 | 83.7 | Pt.Cldy. |
| 85 | 73 | 79 | .051 | .11 | 84.5 | Pt.Cldy. |
| 83 | 74 | 78 | .166 | 2.72 | 83.3 | Cldy. |
| 86 | 74 | 80 | .035 | .07 | 83.0 | Pt.Cldy. |
| 85 | 75 | 80 | .331 | .16 | 83.4 | Cldy. |
| 86 | 74 | 79 | .122 | .13 | 83.0 | Cldy. |
| 85 | 72 | 77 | .098 | .47 | 82.2 | Cldy. |
| 85 | 73 | 78 | .079 | .63 | 81.4 | Cldy. |
| 86 | 74 | 80 | .015 | .39 | 82.9 | Pt.Cldy. |
| 84 | 74 | 77 | .182 | .07 | 83.3 | Cldy. |
| 84 | 74 | 77 | .082 | .03 | 82.6 | Cldy. |
| 86 | 72 | 78 | .059 | 0 | 82.0 | Cldy. |
| 84 | 73 | 78 | .087 | .98 | 82.2 | Cldy. |
| 81 | 75 | 78 | .079 | .85 | 81.5 | Cldy. |
| 83 | 72 | 77 | .078 | 2.11 | 80.8 | Cldy. |
| 85 | 75 | 80 | .040 | 0 | 82.5 | Pt.Cldy. |
| 87 | 74 | 79 | .110 | .19 | 83.4 | Cldy. |
| 82 | 73 | 77 | .069 | 1.33 | 82.4 | Cldy. |
| 84 | 75 | 80 | .070 | 0 | 81.9 | Pt.Cldy. |
| 86 | 75 | 80 | .138 | .05 | 84.0 | Pt.Cldy. |
| 87 | 75 | 80 | .027 | .04 | 84.7 | Cldy. |
| 88 | 75 | 80 | .114 | 0 | 84.4 | Pt.Cldy. |
| 82 | 73 | 77 | .169 | .60 | 83.3 | Cldy. |
| 90 | 73 | 80 | .083 | 0 | 83.4 | Pt.Cldy. |
| 88 | 75 | 81 | .071 | .01 | 83.8 | Cldy. |
| 89 | 73 | 79 | .102 | .06 | 83.4 | Cldy. |
| 86 | 74 | 77 | .093 | 0 | 82.2 | Pt.Cldy. |
| 86 | 74 | 79 | .098 | 0 | 81.9 | Cldy. |
| 87 | 73 | 79 | .114 | .09 | 82.8 | Cldy. |
| 2560 | 2216 | *-- | 2.986 | 11.09 | *-- | |
| 85.3 | 73.9 | 78.7 | .100 | -- | 82.9 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

**For 24 hours ending at 8:00 A.M.

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.826; highest 29.950 date 12th

Lowest 29.700 date 9th

### TEMPERATURE

Highest 90 date 25th; lowest 72 date 13th

Greatest daily range 17 date 25th

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.3 | 1913 | 78.5 | 1920 | 78.5 | 1927 | 77.7 |
| 1907 | 78.5 | 1914 | 78.5 | 1921 | 78.3 | 1928 | 78.9 |
| 1908 | 78.7 | 1915 | 79.1 | 1922 | 78.1 | 1929 | 77.9 |
| 1909 | 78.2 | 1916 | 77.6 | 1923 | 78.8 | 1930 | 79.7 |
| 1910 | 77.8 | 1917 | 77.6 | 1924 | 78.0 | 1931 | 78.7 |
| 1911 | 79.0 | 1918 | 78.9 | 1925 | 78.0 | 1932 | |
| 1912 | 78.0 | 1919 | 78.2 | 1926 | 79.0 | 1933 | |

Mean of this month for 26 years 78.4

Absolute maximum for this month for 26 years 94

Absolute minimum for this month for 26 years 68

Average daily excess, (+) ~~deficiency~~ of this month as compared with mean of 26 years +0.3

### EVAPORATION

Total this month 2.986 Average daily .100 inches

### PRECIPITATION

Total this month 11.09

Greatest precipitation in 24 hours 2.83 date 4th & 5th

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 9.02 | 1897 | | 1909 | 3.86 | 1921 | 3.27 |
| 1880 | 7.91 | 1898 | 7.94 | 1910 | 4.84 | 1922 | 8.18 |
| 1881 | 8.94 | 1899 | 6.15 | 1911 | 6.03 | 1923 | 4.60 |
| 1882 | 4.05 | 1900 | 7.76 | 1912 | 8.38 | 1924 | 12.55 |
| 1889 | | 1901 | 15.06 | 1913 | 11.43 | 1925 | 9.01 |
| 1890 | | 1902 | | 1914 | 9.60 | 1926 | 8.41 |
| 1891 | | 1903 | | 1915 | 3.69 | 1927 | 6.53 |
| 1892 | | 1904 | | 1916 | 8.02 | 1928 | 10.44 |
| 1893 | | 1905 | 7.46 | 1917 | 11.53 | 1929 | 9.26 |
| 1894 | | 1906 | 4.83 | 1918 | 7.03 | 1930 | 7.61 |
| 1895 | | 1907 | 11.14 | 1919 | 10.84 | 1931 | 11.09 |
| 1896 | | 1908 | 5.93 | 1920 | 9.14 | 1932 | |

Average of this month for 35 years 8.04

Total from January 1, 1931 to date 48.30

Average from January 1, to date 44.03

Excess (+) or deficiency (—) from January 1, 1931 to date as compared with average of corresponding period + 4.27

### WIND

Prevailing direction NW Total movement 3265 miles

Average hourly velocity 4.5 miles per hour

Maximum velocity (for five minutes) 24 miles per hour from NW on 27th

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 11 Cloudy 19

Days on which .01 inch, or more, of rain occurred 21

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar 24th and 25th

Fogs: Light 13th

Fogs: Dense None

Thunderstorms 3, 4, 8, 18, 24, 27 & 30

Earthquakes 4, 7, 9, 12, 25 & 26

1066-4

MR 4699—Panama Canal—3-28-27—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month October , [redacted] 1931

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (inches) | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| | | | XX | | | |
| 87 | 74 | 80 | .059 | T | 82.6 | Cloudy |
| 87 | 74 | 79 | .130 | .02 | 82.8 | Cloudy |
| 85 | 76 | 79 | .095 | .20 | 83.0 | Cloudy |
| 85 | 74 | 79 | .070 | 0 | 83.1 | Pt.Cldy |
| 86 | 73 | 80 | .067 | 0 | 83.3 | Pt.Cldy |
| 80 | 75 | 76 | .111 | 3.54 | 81.4 | Cloudy |
| 85 | 74 | 79 | .047 | 0 | 81.8 | Pt.Cldy |
| 87 | 73 | 79 | .088 | T | 82.7 | Pt.Cldy |
| 86 | 73 | 79 | .146 | .11 | 83.8 | Pt.Cldy |
| 88 | 74 | 79 | .229 | T | 83.9 | Cloudy |
| 91 | 74 | 80 | .114 | .32 | 83.9 | Cloudy |
| 90 | 76 | 81 | .075 | 0 | 83.9 | Cloudy |
| 84 | 75 | 78 | .129 | .06 | 83.2 | Cloudy |
| 87 | 75 | 79 | .063 | .01 | 83.1 | Cloudy |
| 89 | 75 | 79 | .048 | .09 | 82.6 | Cloudy |
| 90 | 75 | 80 | .031 | .69 | 82.5 | Cloudy |
| 85 | 76 | 78 | .162 | .11 | 82.8 | Cloudy |
| 86 | 76 | 80 | .067 | 0 | 83.4 | Pt.Cldy |
| 85 | 76 | 80 | .118 | .30 | 82.6 | Cloudy |
| 86 | 74 | 79 | .118 | 0 | 82.4 | Pt.Cldy |
| 86 | 74 | 78 | .118 | .62 | 82.9 | Cloudy |
| 88 | 73 | 78 | .102 | .08 | 83.3 | Cloudy |
| 89 | 75 | 79 | .166 | 0 | 83.6 | Cloudy |
| 88 | 74 | 77 | .165 | .16 | 83.8 | Cloudy |
| 84 | 72 | 77 | .114 | 0 | 82.9 | Cloudy |
| 87 | 74 | 79 | .065 | .04 | 83.6 | Pt.Cldy |
| 88 | 75 | 79 | .154 | .22 | 83.5 | Cloudy |
| 88 | 75 | 81 | .067 | .07 | 83.2 | Cloudy |
| 84 | 76 | 78 | .126 | 1.44 | 83.2 | Cloudy |
| 78 | 75 | 76 | .090 | .83 | 82.3 | Cloudy |
| 85 | 72 | 77 | .080 | .35 | 81.7 | Cloudy |
| 2674 | 2307 | * - | 3.214 | 9.26 | * - | |
| 86.3 | 74.4 | 78.8 | .104 | - | 83.0 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL: INCHES)

Mean 29.802 ; highest 29.907 date 21
Lowest 29.690 date 13

### TEMPERATURE

Highest 91 date 11 lowest 72 date 25
Greatest daily range 17 date 11
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.0 | 1913 | 78.3 | 1920 | 77.8 | 1927 | 78.1 |
| 1907 | 77.5 | 1914 | 78.0 | 1921 | 77.5 | 1928 | 78.2 |
| 1908 | 77.8 | 1915 | 77.8 | 1922 | 77.8 | 1929 | 77.8 |
| 1909 | 77.5 | 1916 | 76.8 | 1923 | 77.7 | 1930 | 78.2 |
| 1910 | 77.2 | 1917 | 77.1 | 1924 | 77.6 | 1931 | 78.8 |
| 1911 | 77.9 | 1918 | 77.7 | 1925 | 78.4 | 1932 | |
| 1912 | 77.2 | 1919 | 78.1 | 1926 | 78.8 | 1933 | |

Mean of this month for 26 years 77.8
Absolute maximum for this month for 26 years 95
Absolute minimum for this month for 26 years 68
Average daily excess, (+) [redacted] of this month as compared with mean of 26 years +1.0

### EVAPORATION

Total this month 3.214 Average daily .104 inches

### PRECIPITATION

Total this month 9.26
Greatest precipitation in 24 hours 3.54 date 6
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1888 | 9.80 | 1897 | - | 1909 | 8.77 | 1921 | 13.86 |
| 1880 | 11.81 | 1898 | 13.48 | 1910 | 8.86 | 1922 | 9.03 |
| 1881 | 9.68 | 1899 | 11.99 | 1911 | 10.90 | 1923 | 15.02 |
| 1882 | 6.69 | 1900 | 20.27 | 1912 | 17.89 | 1924 | 10.38 |
| 1889 | - | 1901 | 13.77 | 1913 | 8.30 | 1925 | 7.37 |
| 1890 | - | 1902 | - | 1914 | 6.44 | 1926 | 9.93 |
| 1891 | - | 1903 | - | 1915 | 10.49 | 1927 | 8.36 |
| 1892 | - | 1904 | - | 1916 | 10.17 | 1928 | 10.70 |
| 1893 | - | 1905 | 8.49 | 1917 | 6.14 | 1929 | 7.89 |
| 1894 | - | 1906 | 4.35 | 1918 | 9.16 | 1930 | 8.24 |
| 1895 | - | 1907 | 9.26 | 1919 | 12.11 | 1931 | 9.26 |
| 1896 | - | 1908 | 8.79 | 1920 | 6.48 | 1932 | |

Average of this month for 35 years 10.12
Total from January 1, 1931 to date 58.22
Average from January 1, to date 54.38
Excess (+[redacted]) from January 1, 1931 to date as compared with average of corresponding period + 3.84

### WIND

Prevailing direction NW Total movement 3879 miles
Average hourly velocity 5.2 miles per hour
Maximum velocity (for five minutes) 24 miles per hour
from S on 18

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 8 Cloudy 23
Days on which .01 inch, or more, of rain occurred 20

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms 1, 6, 15, 16, 21, 22, 23, 24, 27
Earthquakes 3, 9, 12, 25, 31

NOTE: [redacted] All data in 75th meridian time. *Sum and Mean of Bihourly values.

4066-4

# THE PANAMA CANAL

MR 4699—Panama Canal—3-28-27—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month November, 1931.

| Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) X | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 84 | 75 | 79 | .126 | T | 80.7 | Cldy |
| 82 | 74 | 78 | .181 | .05 | 80.8 | Cldy |
| 83 | 77 | 77 | .075 | .60 | 80.9 | Cldy |
| 82 | 73 | 75 | .035 | 1.48 | 80.3 | Cldy |
| 84 | 72 | 76 | .050 | .03 | 79.5 | Pt Cldy |
| 87 | 73 | 78 | .100 | .46 | 80.4 | Cldy |
| 76 | 74 | 74 | .169 | 1.71 | 78.2 | Cldy |
| 73 | 71 | 72 | .031 | 2.36 | 75.1 | Cldy |
| 81 | 70 | 74 | .056 | .46 | 76.4 | Cldy |
| 79 | 73 | 75 | .027 | .34 | 78.4 | Cldy |
| 85 | 72 | 77 | .028 | .02 | 79.2 | Cldy |
| 83 | 74 | 77 | .078 | .11 | 80.2 | Cldy |
| 84 | 73 | 77 | .052 | 2.59 | 79.5 | Cldy |
| 79 | 74 | 76 | .063 | .12 | 77.3 | Cldy |
| 84 | 74 | 77 | .055 | .04 | 78.9 | Cldy |
| 88 | 74 | 79 | .070 | .01 | 80.3 | Pt Cldy |
| 88 | 73 | 78 | .240 | .11 | 80.7 | Cldy |
| 88 | 72 | 77 | .083 | .04 | 80.8 | Cldy |
| 86 | 74 | 77 | .067 | .11 | 80.6 | Cldy |
| 84 | 71 | 76 | .082 | .08 | 80.5 | Cldy |
| 85 | 71 | 76 | .063 | .02 | 80.8 | Cldy |
| 83 | 71 | 76 | .120 | .45 | 80.6 | Pt Cldy |
| 86 | 71 | 77 | .095 | 0 | 79.9 | Pt Cldy |
| 86 | 71 | 78 | .224 | 0 | 80.1 | Pt Cldy |
| 85 | 72 | 76 | .209 | .02 | 80.0 | Cldy |
| 82 | 73 | 76 | .200 | 0 | 80.1 | Cldy |
| 82 | 73 | 76 | .185 | .01 | 79.8 | Cldy |
| 83 | 74 | 76 | .075 | .72 | 79.2 | Cldy |
| 82 | 73 | 75 | .106 | .64 | 78.3 | Cldy |
| 80 | 71 | 75 | .088 | .02 | 78.8 | Cldy |
| 2494 | 2188 | * -- | 2.975 | 12.60 | * --- | |
| 83.1 | 72.8 | 75.4 | .099 | --- | 79.5 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

Mean 29.810; highest 29.915 date 2

Lowest 29.697 date 12

### TEMPERATURE

Highest 88 date 17; lowest 70 date 9

Greatest daily range 16 date 18

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 77.7 | 1913 77.4 | 1920 78.2 | 1927 78.3 |
| 1907 77.7 | 1914 78.0 | 1921 78.5 | 1928 76.9 |
| 1908 76.9 | 1915 76.9 | 1922 77.0 | 1929 78.3 |
| 1909 75.7 | 1916 76.5 | 1923 78.6 | 1930 79.2 |
| 1910 77.3 | 1917 76.1 | 1924 75.7 | 1931 76.4 |
| 1911 77.6 | 1918 78.2 | 1925 76.6 | 1932 |
| 1912 77.1 | 1919 77.4 | 1926 77.7 | 1933 |

Mean of this month for 26 years 77.5

Absolute maximum for this month for 26 years 94

Absolute minimum for this month for 26 years 67

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 36 years -1.1

### EVAPORATION

Total this month 2.975 Average daily .099 inches

### PRECIPITATION

Total this month 12.60

Greatest precipitation in 24 hours 2.71 date 13 & 14

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1879 19.21 | 1897 -- | 1909 15.14 | 1921 7.11 |
| 1880 6.46 | 1898 11.13 | 1910 4.29 | 1922 8.44 |
| 1881 9.72 | 1899 8.93 | 1911 7.57 | 1923 8.81 |
| 1882 10.91 | 1900 13.01 | 1912 6.38 | 1924 12.53 |
| 1888 -- | 1901 12.40 | 1913 10.53 | 1925 3.52 |
| 1889 -- | 1902 -- | 1914 10.36 | 1926 9.63 |
| 1890 -- | 1903 -- | 1915 7.05 | 1927 5.82 |
| 1891 -- | 1904 -- | 1916 8.77 | 1928 20.51 |
| 1892 -- | 1905 8.81 | 1917 13.77 | 1929 12.62 |
| 1893 -- | 1906 13.57 | 1918 9.61 | 1930 5.12 |
| 1894 -- | 1907 10.51 | 1919 4.97 | 1931 12.60 |
| 1895 -- | 1908 9.12 | 1920 19.22 | 1932 |
| 1896 -- | | | |

Average of this month for 35 years 10.24

Total from January 1, 1931 to date 70.82

Average from January 1, to date 64.62

Excess (+) or deficiency (—) from January 1, 1931 to date as compared with average of corresponding period +6.20

### WIND

Prevailing direction NW Total movement 4194 miles

Average hourly velocity 5.8 miles per hour

Maximum velocity (for five minutes) 24 miles per hour

from S on 1st

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 5 Cloudy 25

Days on which .01 inch, or more, of rain occurred 26

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None

Fogs: Light 21 & 30

Fogs: Dense None

Thunderstorms 13 & 28

Earthquakes 1 & 23

"T" For Measurable precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

For 24-hour period ending at 8:00 AM.

# THE PANAMA CANAL

MR 4699—Panama Canal—3-28-27—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month December, 1921

| Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) * | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 82 | 72 | 76 | .110 | .56 | 79.4 | Cloudy |
| 85 | 73 | 77 | .067 | 1.82 | 78.6 | Cloudy |
| 85 | 72 | 77 | .059 | .13 | 78.7 | Cloudy |
| 86 | 72 | 77 | .059 | .36 | 79.5 | Cloudy |
| 85 | 72 | 78 | .205 | 0 | 79.7 | Cloudy |
| 85 | 74 | 79 | .051 | .05 | 80.3 | Cloudy |
| 84 | 74 | 79 | .059 | .04 | 80.0 | Cloudy |
| 86 | 74 | 80 | .099 | 0 | 79.8 | Cloudy |
| 87 | 74 | 80 | .065 | .02 | 79.6 | Cloudy |
| 87 | 75 | 79 | .122 | .45 | 79.6 | Pt Cldy |
| 87 | 76 | 80 | .080 | 0 | 79.6 | Pt Cldy |
| 90 | 74 | 80 | .157 | .01 | 79.9 | Pt Cldy |
| 90 | 74 | 79 | .201 | .05 | 79.8 | Pt.Cldy |
| 88 | 75 | 80 | .114 | .10 | 80.0 | Cldy |
| 89 | 73 | 80 | .130 | 0 | 80.3 | Pt Cldy |
| 90 | 72 | 79 | .209 | T | 81.2 | Pt Cldy |
| 86 | 72 | 78 | .161 | .05 | 81.5 | Pt Cldy |
| 89 | 74 | 80 | .102 | T | 82.0 | Pt Cldy |
| 88 | 74 | 79 | .122 | 0 | 82.1 | Pt Cldy |
| 86 | 75 | 78 | .189 | .03 | 81.6 | Cloudy |
| 88 | 73 | 79 | .060 | 0 | 81.6 | Pt Cldy |
| 88 | 73 | 78 | .129 | .12 | 81.8 | Pt Cldy |
| 89 | 71 | 78 | .220 | .06 | 81.7 | Pt Cldy |
| 87 | 72 | 78 | .111 | .04 | 81.5 | Pt Cldy |
| 88 | 71 | 78 | .169 | 0 | 81.0 | Pt Cldy |
| 87 | 71 | 77 | .197 | .19 | 80.6 | Pt Cldy |
| 88 | 72 | 79 | .157 | 0 | 80.6 | Pt Cldy |
| 86 | 72 | 78 | .205 | 0 | 81.2 | Pt Cldy |
| 86 | 71 | 77 | .130 | T | 81.0 | Pt Cldy |
| 89 | 72 | 79 | .150 | T | 81.2 | Pt Cldy |
| 89 | 73 | 80 | .296 | 0 | 81.2 | Pt Cldy |
| 2698 | 2242 | * —— | 4.125 | 4.96 | * —— | |
| 87.0 | 73.0 | 78.5 | .133 | —— | 80.5 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

Mean 29.810 highest 29.930 date 26
Lowest 29.662 date 11

### TEMPERATURE

Highest 90 date 16 lowest 71 date 26
Greatest daily range 18 date 16
Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 77.4 | 1913 78.3 | 1920 78.5 | 1927 78.6 |
| 1907 79.1 | 1914 79.3 | 1921 78.3 | 1928 78.1 |
| 1908 77.5 | 1915 78.5 | 1922 77.4 | 1929 78.3 |
| 1909 78.6 | 1916 77.6 | 1923 78.2 | 1930 79.6 |
| 1910 77.3 | 1917 76.7 | 1924 77.7 | 1931 78.5 |
| 1911 79.3 | 1918 79.6 | 1925 79.5 | 1932 |
| 1912 78.7 | 1919 78.4 | 1926 77.7 | 1933 |

Mean of this month for 36 years 78.3
Absolute maximum for this month for 36 years 94
Absolute minimum for this month for 36 years 66
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 36 years +0.2

### EVAPORATION

Total this month 4.125 Average daily .133 inches

### PRECIPITATION

Total this month 4.96
Greatest precipitation in 24 hours 2.35 date 1 & 2
Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 .98 | 1897 —— | 1909 12.30 | 1921 5.19 |
| 1886 5.51 | 1898 1.89 | 1910 10.45 | 1922 5.82 |
| 1887 2.48 | 1899 4.36 | 1911 1.99 | 1923 5.94 |
| 1888 2.01 | 1900 1.85 | 1912 5.27 | 1924 5.81 |
| 1889 —— | 1901 2.32 | 1913 4.84 | 1925 1.85 |
| 1890 —— | 1902 —— | 1914 8.28 | 1926 8.38 |
| 1891 —— | 1903 —— | 1915 3.60 | 1927 2.95 |
| 1892 —— | 1904 4.06 | 1916 5.86 | 1928 6.98 |
| 1893 —— | 1905 5.52 | 1917 4.09 | 1929 4.17 |
| 1894 —— | 1906 3.46 | 1918 .35 | 1930 2.44 |
| 1895 —— | 1907 4.16 | 1919 1.81 | 1931 4.96 |
| 1896 —— | 1908 —— | 1920 1.94 | 1932 |

Average of this month for 31 years 4.31
Total from January 1, 19 75.78 to date
Average from January 1, to date 66.95
Excess (+) or deficiency (—) from January 1, 19 31 to date as compared with average of corresponding period +6.85

### WIND

Prevailing direction N W Total movement 3960 miles
Average hourly velocity 5.5 miles per hour
Maximum velocity (for five minutes) 30 miles per hour
from N on 28

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 20 Cloudy 11
Days on which .01 inch, or more, of rain occurred 17

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar 19 & 23
Fogs: Light None
Fogs: Dense None
Thunderstorms 3, 5 & 9
Earthquakes 8, 18, & 20

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

* For 24 hour period ending at 8:00 a.m.

066-5

MR 19178—Panama Canal—3-12-30—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month January, 1932

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a. m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 87 | 74 | 80 | .200 | 0 | 81.1 | Pt.Cldy. |
| 86 | 73 | 80 | .205 | 0 | 81.2 | Pt.Cldy. |
| 89 | 74 | 80 | .217 | 0 | 81.6 | Pt.Cldy. |
| 88 | 74 | 80 | .197 | 0 | 81.0 | Pt.Cldy. |
| 88 | 76 | 80 | .208 | 0 | 79.7 | Pt.Cldy. |
| 89 | 74 | 80 | .252 | T | 79.3 | Pt.Cldy. |
| 87 | 71 | 79 | .276 | 0 | 78.1 | Pt.Cldy. |
| 88 | 71 | 77 | .287 | 0 | 77.4 | Clear |
| 86 | 67 | 75 | .264 | 0 | 76.8 | Clear |
| 86 | 67 | 75 | .197 | 0 | 77.4 | Clear |
| 89 | 67 | 76 | .189 | 0 | 77.9 | Pt.Cldy. |
| 89 | 71 | 80 | .250 | 0 | 77.8 | Pt.Cldy. |
| 90 | 73 | 80 | .232 | 0 | 78.0 | Pt.Cldy. |
| 87 | 73 | 79 | .260 | T | 77.2 | Cldy. |
| 88 | 72 | 79 | .189 | 0 | 77.8 | Pt.Cldy. |
| 88 | 71 | 78 | .288 | 0 | 78.8 | Pt.Cldy. |
| 89 | 70 | 78 | .259 | 0 | 78.8 | Pt.Cldy. |
| 88 | 72 | 78 | .182 | .02 | 78.5 | Pt.Cldy. |
| 88 | 75 | 80 | .244 | 0 | 77.8 | Pt.Cldy. |
| 91 | 73 | 79 | .173 | T | 76.4 | Pt.Cldy. |
| 89 | 72 | 79 | .186 | 0 | 75.5 | Pt.Cldy. |
| 87 | 71 | 78 | .244 | 0 | 75.8 | Pt.Cldy. |
| 88 | 72 | 78 | .221 | 0 | 76.8 | Pt.Cldy. |
| 87 | 73 | 79 | .118 | 0 | 77.9 | Pt.Cldy. |
| 83 | 74 | 76 | .106 | .29 | 78.0 | Cldy. |
| 87 | 72 | 77 | .035 | 0 | 78.8 | Pt.Cldy. |
| 85 | 72 | 77 | .186 | .02 | 79.7 | Cldy. |
| 91 | 72 | 79 | .154 | T | 79.3 | Pt.Cldy. |
| 87 | 70 | 77 | .271 | .03 | 80.1 | Pt.Cldy. |
| 90 | 71 | 77 | .107 | .02 | 80.4 | Pt.Cldy. |
| 89 | 73 | 79 | .173 | 0 | 80.9 | Pt.Cldy. |
| 2726 | 2230 | * -- | 6.290 | .38 | * -- | |
| 87.9 | 71.9 | 78.4 | .203 | -- | 78.5 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.840 ; highest 29.970 date 11

Lowest 29.734 date 2

### TEMPERATURE

Highest 91 date 20 & 28 west 67 date 10

Greatest daily range 22 date 11

Bihourly Mean for this month in:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1906 | 79.0 | 1913 | 78.8 | 1920 | 78.9 | 1927 | 78.5 | | |
| 1907 | 78.1 | 1914 | 78.5 | 1921 | 78.2 | 1928 | 78.6 | | |
| 1908 | 79.4 | 1915 | 79.6 | 1922 | 78.3 | 1929 | 77.8 | | |
| 1909 | 77.4 | 1916 | 78.4 | 1923 | 77.1 | 1930 | 78.2 | | |
| 1910 | 77.1 | 1917 | 76.7 | 1924 | 78.8 | 1931 | 79.5 | | |
| 1911 | 78.2 | 1918 | 76.9 | 1925 | 76.9 | 1932 | 78.4 | | |
| 1912 | 78.9 | 1919 | 78.2 | 1926 | 79.3 | 1933 | | | |

Mean of this month for 27 years 78.3

Absolute maximum for this month for 27 years 93

Absolute minimum for this month for 27 years 63

Average daily excess, (+) ~~or deficiency (—)~~ of this month as compared with mean of 27 years +0.1

### EVAPORATION

Total this month 6.290 Average daily .203 inches

### PRECIPITATION

Total this month .38

Greatest precipitation in 24 hours .29 date 25

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | .04 | 1897 | — | 1909 | 2.90 | 1921 | .88 |
| 1880 | 1.89 | 1898 | — | 1910 | 1.22 | 1922 | 1.73 |
| 1887 | .16 | 1899 | 5.61 | 1911 | .85 | 1923 | .80 |
| 1888 | 0 | 1900 | .78 | 1912 | T | 1924 | T |
| 1889 | — | 1901 | 0 | 1913 | .63 | 1925 | 1.44 |
| 1890 | — | 1902 | — | 1914 | .32 | 1926 | .01 |
| 1891 | — | 1903 | — | 1915 | 2.12 | 1927 | .18 |
| 1892 | — | 1904 | — | 1916 | 1.41 | 1928 | .02 |
| 1893 | — | 1905 | — | 1917 | .13 | 1929 | .17 |
| 1894 | — | 1906 | .43 | 1918 | 1.78 | 1930 | .05 |
| 1895 | — | 1907 | .29 | 1919 | .28 | 1931 | T |
| 1896 | — | 1908 | .12 | 1920 | T | 1932 | .38 |

Average of this month for 34 years .78

Total from January 1, 1932 to date .38

Average from January 1, to date .78

~~Excess~~ or deficiency (—) from January 1, 1932 to date as compared with average of corresponding period -.40

### WIND

Prevailing direction N Total movement 5542 miles

Average hourly velocity 7.4 miles per hour

Maximum velocity (for five minutes) 22 miles per hour

from N on 4

### (WEATHER No. of days)

Clear 3 Pt. Cloudy 25 Cloudy 3

Days on which .01 inch, or more, of rain occurred 5

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar 15th & 16th

Fogs: Light None

Fogs: Dense None

Thunderstorms 24th

Earthquakes 20 & 29

4066-5

MR 19178—Panama Canal—3-12-30—300

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

**Station,** Balboa Heights, C. Z. ; **Month** February, **193**2.

| Day | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 71 | 78 | .248 | 0 | 81.4 | Pt.cldy |
| 2 | 89 | 73 | 78 | .303 | 0 | 81.8 | Pt.cldy |
| 3 | 89 | 70 | 78 | .287 | 0 | 81.5 | Pt.cldy |
| 4 | 90 | 71 | 79 | .346 | 0 | 79.8 | Pt.cldy |
| 5 | 89 | 73 | 80 | .253 | 0 | 77.5 | Pt.cldy |
| 6 | 88 | 74 | 80 | .295 | 0 | 76.1 | Pt.cldy |
| 7 | 87 | 74 | 79 | .271 | 0 | 74.7 | Pt.cldy |
| 8 | 87 | 75 | 79 | .347 | 0 | 74.2 | Pt.cldy |
| 9 | 88 | 75 | 79 | .303 | 0 | 74.2 | Pt.cldy |
| 10 | 87 | 74 | 78 | .401 | T | 74.5 | Cldy |
| 11 | 89 | 70 | 79 | .276 | 0 | 74.5 | Pt.cldy |
| 12 | 87 | 72 | 77 | .244 | .43 | 74.5 | cldy |
| 13 | 90 | 70 | 79 | .146 | 0 | 74.2 | Pt.cldy |
| 14 | 88 | 71 | 78 | .242 | 0 | 73.4 | Pt.cldy |
| 15 | 89 | 70 | 78 | .283 | 0 | 73.0 | Clear |
| 16 | 90 | 69 | 78 | .421 | 0 | 73.4 | Pt.cldy |
| 17 | 89 | 67 | 78 | .303 | 0 | 73.0 | Pt.cldy |
| 18 | 89 | 70 | 77 | .213 | T | 72.8 | Pt.cldy |
| 19 | 91 | 70 | 79 | .153 | 0 | 72.7 | Pt.cldy |
| 20 | 91 | 70 | 79 | .303 | 0 | 72.8 | Pt.cldy |
| 21 | 87 | 71 | 78 | .241 | .03 | 73.1 | Pt.cldy |
| 22 | 90 | 71 | 78 | .263 | 0 | 73.6 | Pt.cldy |
| 23 | 89 | 70 | 78 | .201 | T | 74.1 | Pt.cldy |
| 24 | 90 | 73 | 78 | .128 | 0 | 72.9 | Pt.cldy |
| 25 | 90 | 72 | 79 | .260 | 0 | 72.1 | Pt.cldy |
| 26 | 90 | 71 | 78 | .311 | 0 | 72.2 | Pt.cldy |
| 27 | 88 | 70 | 78 | .386 | T | 72.7 | Cldy |
| 28 | 89 | 70 | 78 | .220 | 0 | 73.2 | Pt.cldy |
| 29 | 87 | 70 | 78 | .252 | 0 | 72.9 | Pt.cldy |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Sum | 2572 | 2067 | * - | 7.880 | .46 | * - | |
| Mean | 88.7 | 71.3 | 78.3 | .272 | - | 74.7 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL: INCHES)

(Bi-hourly) Mean 29.848; highest 29.960 date 28th
Lowest 29.716 date 11th

### TEMPERATURE

Highest 91 date 19&20; lowest 67 date 17
Greatest daily range 22 date 17

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.4 | 1913 | 78.5 | 1920 | 78.8 | 1927 | 77.9 |
| 1907 | 76.7 | 1914 | 80.0 | 1921 | 78.1 | 1928 | 80.0 |
| 1908 | 79.9 | 1915 | 79.4 | 1922 | 79.7 | 1929 | 78.8 |
| 1909 | 78.4 | 1916 | 77.6 | 1923 | 77.9 | 1930 | 78.3 |
| 1910 | 77.5 | 1917 | 76.4 | 1924 | 78.5 | 1931 | 79.8 |
| 1911 | 77.9 | 1918 | 78.1 | 1925 | 77.1 | 1932 | 78.3 |
| 1912 | 79.3 | 1919 | 77.9 | 1926 | 80.0 | 1933 | |

Mean of this month for 27 years 78.5
Absolute maximum for this month for 27 years 95
Absolute minimum for this month for 27 years 64
Average daily excess (+) or deficiency (—) of this month as compared with mean of 27 years -0.2

### EVAPORATION

Total this month 7.880 Average daily .272 inches

### PRECIPITATION

Total this month .46
Greatest precipitation in 24 hours .43 date 12

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1886 | 2.52 | 1897 | - | 1909 | 2.90 | 1921 | 2.37 |
| 1887 | .12 | 1898 | - | 1910 | .43 | 1922 | 2.03 |
| 1888 | .16 | 1899 | 1.17 | 1911 | 2.75 | 1923 | T |
| 1889 | .12 | 1900 | 0 | 1912 | .08 | 1924 | .05 |
| 1890 | - | 1901 | 1.11 | 1913 | .22 | 1925 | .07 |
| 1891 | - | 1902 | - | 1914 | .02 | 1926 | .07 |
| 1892 | - | 1903 | - | 1915 | 2.96 | 1927 | 1.99 |
| 1893 | - | 1904 | - | 1916 | 1.48 | 1928 | .32 |
| 1894 | - | 1905 | - | 1917 | .19 | 1929 | .02 |
| 1895 | - | 1906 | .33 | 1918 | T | 1930 | .85 |
| 1896 | - | 1907 | .04 | 1919 | T | 1931 | T |
| | | 1908 | .24 | 1920 | T | 1932 | .46 |

Average of this month for 34 years .74
Total from January 1, 1932 to date .84
Average from January 1, to date 1.52
Excess (+) or deficiency (—) from January 1, 1932 to date as compared with average of corresponding period -.68

### WIND

Prevailing direction N Total movement 6962 miles
Average hourly velocity 10.0 miles per hour
Maximum velocity (for five minutes) 26 miles per hour
from N on 8th

### (WEATHER No. of days)

Clear 1 Pt. Cloudy 25 Cloudy 3
Days on which .01 inch, or more, of rain occurred 2

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms None
Earthquakes 3, 5, 17, 20, 21 & 29

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 19178—Panama Canal—3-12-30—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

**Station,** Balboa Heights, C. Z. ; **Month** March, **193**2

| | Temperature (Degrees Fahrenheit) Max | Min | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 68 | 78 | .291 | 0 | 71.8 | Pt Cldy |
| 2 | 89 | 68 | 77 | .315 | 0 | 73.0 | Pt Cldy |
| 3 | 91 | 69 | 78 | .189 | 0 | 73.5 | Pt Cldy |
| 4 | 86 | 68 | 77 | .193 | 0 | 73.6 | Clear |
| 5 | 80 | 68 | 74 | .134 | 0 | 73.9 | Pt Cldy |
| 6 | 81 | 73 | 76 | .102 | 0 | 74.0 | Pt Cldy |
| 7 | 86 | 68 | 75 | .153 | .13 | 74.9 | Pt Cldy |
| 8 | 90 | 69 | 79 | .115 | 0 | 74.5 | Pt Cldy |
| 9 | 88 | 72 | 79 | .173 | 0 | 75.4 | Pt Cldy |
| 10 | 90 | 74 | 81 | .181 | 0 | 76.6 | Pt Cldy |
| 11 | 90 | 75 | 81 | .220 | T | 75.8 | Pt Cldy |
| 12 | 92 | 74 | 82 | .162 | T | 76.0 | Pt Cldy |
| 13 | 93 | 74 | 82 | .252 | 0 | 74.7 | Pt Cldy |
| 14 | 91 | 73 | 82 | .303 | 0 | 73.8 | Pt Cldy |
| 15 | 91 | 74 | 82 | .386 | 0 | 74.1 | Pt Cldy |
| 16 | 91 | 73 | 81 | .433 | T | 73.6 | Pt Cldy |
| 17 | 92 | 74 | 81 | .315 | 0 | 74.2 | Pt Cldy |
| 18 | 92 | 74 | 81 | .240 | 0 | 74.5 | Pt Cldy |
| 19 | 89 | 75 | 81 | .212 | 0 | 75.2 | Pt Cldy |
| 20 | 90 | 74 | 80 | .209 | 0 | 75.7 | Pt Cldy |
| 21 | 92 | 72 | 80 | .237 | 0 | 75.9 | Pt Cldy |
| 22 | 91 | 75 | 82 | .212 | 0 | 76.5 | Pt Cldy |
| 23 | 91 | 72 | 80 | .284 | 0 | 75.8 | Pt Cldy |
| 24 | 93 | 72 | 80 | .240 | 0 | 75.8 | Pt Cldy |
| 25 | 91 | 73 | 80 | .287 | 0 | 76.2 | Pt Cldy |
| 26 | 90 | 72 | 80 | .418 | 0 | 76.8 | Pt Cldy |
| 27 | 90 | 70 | 79 | .413 | 0 | 76.8 | Pt Cldy |
| 28 | 89 | 71 | 79 | .228 | 0 | 76.1 | Pt Cldy |
| 29 | 89 | 74 | 80 | .280 | T | 75.8 | Pt Cldy |
| 30 | 89 | 75 | 80 | .413 | T | 75.5 | Pt Cldy |
| 31 | 92 | 76 | 82 | .500 | 0 | 76.2 | Pt Cldy |
| | 2779 | 2239 | * - | 8.070 | .13 | * -- | |
| | 89.6 | 72.2 | 79.7 | .260 | - | 75.0 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL: INCHES)

(Bi-hourly)
Mean 29.842 highest 29.970 date 26
Lowest 29.717 date 10

### TEMPERATURE

Highest 93 date 13 ; lowest 68 date 2&5
Greatest daily range 22 date 3
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 80.2 | 1913 | 80.1 | 1920 | 80.0 | 1927 | 80.3 |
| 1907 | 79.3 | 1914 | 80.8 | 1921 | 79.3 | 1928 | 80.4 |
| 1908 | 80.5 | 1915 | 81.4 | 1922 | 79.7 | 1929 | 79.4 |
| 1909 | 79.8 | 1916 | 79.0 | 1923 | 79.3 | 1930 | 80.5 |
| 1910 | 77.5 | 1917 | 78.8 | 1924 | 79.9 | 1931 | 81.3 |
| 1911 | 78.3 | 1918 | 78.0 | 1925 | 78.1 | 1932 | 79.7 |
| 1912 | 81.1 | 1919 | 79.6 | 1926 | 80.6 | 1933 | |

Mean of this month for 27 years 79.7
Absolute maximum for this month for 27 years 96
Absolute minimum for this month for 27 years 65
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 27 years -+0.0

### EVAPORATION

Total this month 8.070 Average daily .260 inches

### PRECIPITATION

Total this month .13
Greatest precipitation in 24 hours .13 date 7
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 5.71 | 1897 | - - | 1909 | .18 | 1921 | 2.98 |
| 1880 | .16 | 1898 | - - | 1910 | 1.83 | 1922 | 1.02 |
| 1881 | .35 | 1899 | 2.41 | 1911 | .26 | 1923 | T |
| 1882 | .0 | 1900 | 0 | 1912 | .01 | 1924 | .07 |
| 1889 | - | 1901 | 0 | 1913 | .43 | 1925 | .07 |
| 1890 | - | 1902 | - | 1914 | T | 1926 | 0 |
| 1891 | - | 1903 | - | 1915 | T | 1927 | .01 |
| 1892 | - | 1904 | - | 1916 | .89 | 1928 | 4.07 |
| 1893 | - | 1905 | - | 1917 | .02 | 1929 | 2.19 |
| 1894 | - | 1906 | .05 | 1918 | 1.25 | 1930 | .01 |
| 1895 | - | 1907 | T | 1919 | T | 1931 | .70 |
| 1896 | - | 1908 | .03 | 1920 | .09 | 1932 | .13 |

Average of this month for 34 years .73
Total from January 1, 19 32 to date .97
Average from January 1, to date 2.25
Excess (+) or deficiency (—) from January 1, 19 32 to date as compared with average of corresponding period - 1.28

### WIND

Prevailing direction N Total movement 6505 miles
Average hourly velocity 8.7 miles per hour
Maximum velocity (for five minutes) 25 miles per hour
from N on 30

### (WEATHER No. of days)

Clear 1 Pt. Cloudy 30 Cloudy None
Days on which .01 inch, or more, of rain occurred 1

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms 7
Earthquakes 11, 14, 16 & 19.

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C.Z.; Month April, 1932

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water. Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 75 | 81 | .335 | T | 75.5 | Pt.Cldy. |
| 2 | 88 | 75 | 80 | .339 | .07 | 75.2 | Cldy. |
| 3 | 90 | 74 | 81 | .165 | 0 | 75.2 | Pt.Cldy. |
| 4 | 90 | 74 | 82 | .276 | 0 | 74.6 | Pt.Cldy. |
| 5 | 91 | 76 | 82 | .397 | T | 74.4 | Pt.Cldy. |
| 6 | 92 | 76 | 83 | .378 | 0 | 74.8 | Pt.Cldy. |
| 7 | 93 | 77 | 83 | .315 | T | 75.5 | Cldy. |
| 8 | 89 | 77 | 80 | .323 | .05 | 75.4 | Cldy. |
| 9 | 90 | 75 | 80 | .141 | 1.40 | 76.1 | Cldy. |
| 10 | 88 | 74 | 80 | .123 | 0 | 77.1 | Pt.Cldy. |
| 11 | 94 | 75 | 83 | .114 | 0 | 77.7 | Pt.Cldy. |
| 12 | 89 | 76 | 80 | .236 | T. | 78.3 | Pt.Cldy. |
| 13 | 88 | 76 | 81 | .079 | 0 | 78.6 | Cldy. |
| 14 | 92 | 77 | 83 | .157 | 0 | 79.9 | Pt.Cldy. |
| 15 | 91 | 76 | 83 | .276 | 0 | 80.4 | Pt.Cldy. |
| 16 | 92 | 76 | 83 | .315 | 0 | 80.8 | Pt.Cldy. |
| 17 | 92 | 76 | 83 | .394 | 0 | 81.2 | Pt.Cldy. |
| 18 | 92 | 75 | 82 | .197 | 0 | 81.0 | Pt.Cldy. |
| 19 | 87 | 77 | 80 | .236 | 0 | 81.5 | Cldy. |
| 20 | 87 | 76 | 81 | .158 | .03 | 81.4 | Cldy. |
| 21 | 90 | 75 | 80 | .157 | 2.07 | 80.9 | Cldy. |
| 22 | 92 | 75 | 82 | .118 | 0 | 80.9 | Pt.Cldy. |
| 23 | 92 | 76 | 82 | .236 | .44 | 80.8 | Pt.Cldy. |
| 24 | 86 | 75 | 78 | .197 | .49 | 80.4 | Cldy. |
| 25 | 84 | 74 | 78 | .079 | 1.96 | 80.7 | Pt.Cldy. |
| 26 | 85 | 73 | 78 | .079 | .13 | 80.9 | Pt.Cldy. |
| 27 | 84 | 74 | 79 | .118 | .14 | 81.8 | Pt.Cldy. |
| 28 | 88 | 73 | 80 | .047 | 0 | 82.7 | Pt.Cldy. |
| 29 | 91 | 75 | 82 | .272 | 0 | 83.0 | Pt.Cldy. |
| 30 | 89 | 75 | 80 | .145 | .78 | 82.5 | Cldy. |
| Total | 2687 | 2258 | * -- | 6.402 | 7.56 | * -- | |
| Mean | 89.6 | 75.3 | 81.0 | .213 | -- | 79.0 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL: INCHES)

(Bi-hourly) Mean 29.782 highest 29.930 date 2nd

Lowest 29.650 date 11th

### TEMPERATURE

Highest 94 date 11 lowest 73 date 26

Greatest daily range 19 date 11

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 80.8 | 1913 | 80.3 | 1920 | 81.1 | 1927 | 79.8 |
| 1907 | 79.6 | 1914 | 81.1 | 1921 | 79.8 | 1928 | 80.7 |
| 1908 | 80.8 | 1915 | 79.4 | 1922 | 81.6 | 1929 | 80.1 |
| 1909 | 79.6 | 1916 | 79.7 | 1923 | 79.8 | 1930 | 79.9 |
| 1910 | 78.5 | 1917 | 78.9 | 1924 | 80.5 | 1931 | 82.1 |
| 1911 | 79.5 | 1918 | 79.0 | 1925 | 79.9 | 1932 | 81.0 |
| 1912 | 80.6 | 1919 | 80.1 | 1926 | 81.8 | 1933 | |

Mean of this month for 27 years 80.2

Absolute maximum for this month for 27 years 97

Absolute minimum for this month for 27 years 64

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 27 years +0.8

### EVAPORATION

Total this month 6.402 Average daily .213 inches

### PRECIPITATION

Total this month 7.56

Greatest precipitation in 24 hours 2.09 date 25 & 26

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1885 | 5.55 | 1897 | -- | 1909 | 2.92 | 1921 | 1.19 |
| 1886 | 1.61 | 1898 | -- | 1910 | 3.71 | 1922 | .16 |
| 1887 | 3.23 | 1899 | 0 | 1911 | 6.34 | 1923 | .85 |
| 1888 | .98 | 1900 | 2.25 | 1912 | 2.66 | 1924 | 3.72 |
| 1889 | -- | 1901 | .25 | 1913 | .05 | 1925 | 2.65 |
| 1890 | -- | 1902 | -- | 1914 | 4.80 | 1926 | .08 |
| 1891 | -- | 1903 | -- | 1915 | 5.37 | 1927 | 4.67 |
| 1892 | -- | 1904 | -- | 1916 | 2.84 | 1928 | 3.58 |
| 1893 | -- | 1905 | 7.77 | 1917 | 2.24 | 1929 | .45 |
| 1894 | -- | 1906 | T. | 1918 | 4.52 | 1930 | 6.78 |
| 1895 | -- | 1907 | 1.37 | 1919 | 6.45 | 1931 | 1.45 |
| 1896 | -- | 1908 | 34 | 1920 | 3.02 | 1932 | 7.56 |

Average of this month for 32 years 8.55

Total from January 1, 19 32 to date 5.21

Average from January 1, to date 32

Excess (+) or deficiency (—) from January 1, 19 32 to date as compared with average of corresponding period + 3.32

### WIND

Prevailing direction NW Total movement 5321 miles

Average hourly velocity 7.4 miles per hour

Maximum velocity 24 miles per hour from NW for five minutes 9th on

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 20 Cloudy 10

Days on which .01 inch, or more, of rain occurred 11

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 21, 25, 30

Earthquakes Seismographs dismantled.

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

4066-4

# THE PANAMA CANAL

MR 4699—Panama Canal—3-28-27—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month May, 192

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (inches) x | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 76 | 76 | .134 | .64 | 82.2 | cloudy |
| 2 | 78 | 72 | 74 | .051 | 3.66 | 80.7 | cloudy |
| 3 | 85 | 72 | 77 | .028 | .14 | 81.5 | cloudy |
| 4 | 85 | 74 | 78 | .047 | T | 82.7 | cloudy |
| 5 | 86 | 74 | 78 | .087 | .71 | 83.4 | " |
| 6 | 86 | 73 | 77 | .075 | 2.71 | 83.1 | " |
| 7 | 84 | 72 | 77 | .050 | .01 | 82.1 | " |
| 8 | 89 | 74 | 79 | .146 | .05 | 83.8 | " |
| 9 | 85 | 74 | 79 | .145 | 0 | 83.3 | " |
| 10 | 86 | 73 | 78 | .193 | .01 | 83.5 | " |
| 11 | 87 | 74 | 79 | .142 | 0 | 83.8 | ptcldy |
| 12 | 87 | 75 | 77 | .189 | T | 83.0 | cloudy |
| 13 | 86 | 75 | 79 | .232 | 0 | 82.5 | " |
| 14 | 81 | 75 | 78 | .071 | .02 | 81.9 | " |
| 15 | 86 | 74 | 79 | .079 | 0 | 82.4 | ptcldy |
| 16 | 88 | 75 | 80 | .079 | 0 | 83.8 | " |
| 17 | 86 | 75 | 80 | .119 | 0 | 84.2 | cloudy |
| 18 | 85 | 75 | 77 | .200 | 1.12 | 83.1 | " |
| 19 | 87 | 74 | 79 | .062 | 0 | 83.1 | ptcldy |
| 20 | 88 | 75 | 79 | .086 | 0 | 83.3 | cloudy |
| 21 | 86 | 73 | 79 | .071 | 0 | 83.8 | ptcldy |
| 22 | 87 | 74 | 80 | .102 | 0 | 84.0 | " |
| 23 | 92 | 75 | 82 | .130 | .01 | 85.0 | " |
| 24 | 90 | 77 | 82 | .233 | 0 | 85.1 | cloudy |
| 25 | 86 | 77 | 80 | .130 | .20 | 84.4 | " |
| 26 | 90 | 77 | 82 | .095 | 0 | 84.9 | ptcldy |
| 27 | 88 | 76 | 79 | .150 | .01 | 84.5 | " |
| 28 | 85 | 77 | 79 | .137 | .01 | 83.3 | cloudy |
| 29 | 84 | 75 | 79 | .081 | 0 | 83.6 | ptcldy |
| 30 | 88 | 77 | 80 | .065 | .09 | 84.8 | cloudy |
| 31 | 92 | 74 | 82 | .158 | 0 | 84.8 | ptcldy |
| | 2675 | 2311 | * - | 3.504 | 9.39 | * - | |
| | 86.3 | 74.5 | 78.9 | .113 | - | 83.4 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL, INCHES)

Mean 29.822 highest 29.940 date 21

Lowest 29.693 date 6

### TEMPERATURE

Highest 92 date 23 lowest 72 date 3

Greatest daily range 18 date 31

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.9 | 1913 | 78.4 | 1920 | 80.3 | 1927 | 78.6 |
| 1907 | 80.1 | 1914 | 80.1 | 1921 | 78.8 | 1928 | 78.8 |
| 1908 | 78.5 | 1915 | 79.9 | 1922 | 79.3 | 1929 | 79.7 |
| 1909 | 78.3 | 1916 | 79.2 | 1923 | 79.3 | 1930 | 78.5 |
| 1910 | 77.7 | 1917 | 78.2 | 1924 | 79.0 | 1931 | 79.7 |
| 1911 | 78.0 | 1918 | 78.5 | 1925 | 80.4 | 1932 | 78.9 |
| 1912 | 80.3 | 1919 | 80.2 | 1926 | 80.9 | 1933 | |

Mean of this month for 27 years 79.2

Absolute maximum for this month for 27 years 96

Absolute minimum for this month for 27 years 69

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 27 years —0.4

### EVAPORATION

Total this month 3.504 Average daily .113 inches

### PRECIPITATION

Total this month 9.39

Greatest precipitation in 24 hours 4.07 date 1&2

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 10.28 | 1897 | - | 1909 | 9.10 | 1921 | 8.60 |
| 1880 | 4.45 | 1898 | - | 1910 | 9.89 | 1922 | 9.88 |
| 1881 | 10.35 | 1899 | 9.58 | 1911 | 11.04 | 1923 | 5.84 |
| 1882 | 5.24 | 1900 | 11.82 | 1912 | 10.71 | 1924 | 5.51 |
| 1889 | - | 1901 | 11.08 | 1913 | 8.27 | 1925 | 6.73 |
| 1890 | - | 1902 | - | 1914 | 5.98 | 1926 | 4.16 |
| 1891 | - | 1903 | - | 1915 | 6.42 | 1927 | 9.06 |
| 1892 | - | 1904 | - | 1916 | 12.59 | 1928 | 4.20 |
| 1893 | - | 1905 | - | 1917 | 5.75 | 1929 | 4.04 |
| 1894 | - | 1906 | 10.68 | 1918 | 5.75 | 1930 | 9.70 |
| 1895 | - | 1907 | 4.44 | 1919 | 5.21 | 1931 | 13.15 |
| 1896 | - | 1908 | 7.64 | 1920 | 3.31 | 1932 | 9.39 |

Average of this month for 32 years 7.98

Total from January 1, 19 to date 17.92

Average from January 1, to date 13.19

Excess (+) or deficiency (—) from January 1, 19 32 to date as compared with average of corresponding period +4.73

### WIND

Prevailing direction NW Total movement 3733 miles

Average hourly velocity 5.0 miles per hour

Maximum velocity (for five minutes) 22 miles per hour

from S* on 6

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 11 Cloudy 20

Days on which .01 inch, or more, of rain occurred 15

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense 23-24-25-26-27-28

Thunderstorms New seismographs been installed

Earthquakes

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

x For 24 hour period ending at 8:00 a.m.

4066 4

# THE PANAMA CANAL

MR 4699—Panama Canal—3-28-27—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month June, 1932

| | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) | Precipitation (Inches) | Temperature of Sea Water. Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 83 | 75 | 78 | .137 | 1.95 | 85.1 | cloudy |
| 2 | 87 | 73 | 79 | .237 | 0 | 84.7 | cloudy |
| 3 | 88 | 75 | 77 | .098 | .01 | 83.3 | cloudy |
| 4 | 89 | 73 | 80 | .106 | 0 | 83.7 | ptcldy |
| 5 | 88 | 76 | 81 | .090 | 0 | 85.2 | ptcldy |
| 6 | 85 | 72 | 77 | .130 | .98 | 84.0 | cloudy |
| 7 | 86 | 73 | 80 | .059 | .01 | 83.4 | ptcldy |
| 8 | 85 | 75 | 80 | .102 | .03 | 84.3 | cloudy |
| 9 | 88 | 75 | 80 | .091 | 0 | 84.8 | cloudy |
| 10 | 83 | 74 | 79 | .138 | 0 | 84.4 | cloudy |
| 11 | 84 | 76 | 80 | .066 | .26 | 84.2 | cloudy |
| 12 | 90 | 74 | 79 | .059 | .13 | 84.8 | cloudy |
| 13 | 89 | 74 | 81 | .126 | .01 | 84.8 | ptcldy |
| 14 | 83 | 70 | 75 | .111 | 2.30 | 82.8 | cloudy |
| 15 | 87 | 72 | 79 | .050 | .06 | 82.4 | cloudy |
| 16 | 88 | 75 | 79 | .078 | .04 | 83.5 | cloudy |
| 17 | 82 | 74 | 78 | .138 | T | 83.1 | cloudy |
| 18 | 84 | 75 | 79 | .110 | .31 | 82.8 | cloudy |
| 19 | 86 | 75 | 80 | .043 | 0 | 83.3 | ptcldy |
| 20 | 88 | 74 | 79 | .107 | .78 | 83.2 | cloudy |
| 21 | 85 | 72 | 78 | .102 | 0 | 83.2 | cloudy |
| 22 | 88 | 75 | 78 | .087 | .53 | 83.1 | ptcldy |
| 23 | 84 | 71 | 78 | .088 | 0 | 83.2 | cloudy |
| 24 | 84 | 74 | 78 | .071 | .08 | 83.6 | cloudy |
| 25 | 90 | 73 | 79 | .122 | .39 | 84.2 | ptcldy |
| 26 | 85 | 74 | 78 | .134 | 0 | 84.2 | cloudy |
| 27 | 84 | 73 | 77 | .094 | 1.35 | 82.5 | cloudy |
| 28 | 82 | 74 | 78 | .060 | T | 81.3 | cloudy |
| 29 | 85 | 73 | 79 | .091 | 0 | 81.6 | ptcldy |
| 30 | 85 | 73 | 79 | .122 | .01 | 82.4 | cloudy |
| | 2580 | 2212 | - | 3.047 | - | * - | |
| | 86.0 | 73.7 | 78.7 | .102 | 9.23 | 83.6 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL: INCHES)

Mean 29.816 highest 29.920 date 18

Lowest 29.690 date 25

### TEMPERATURE

Highest 90 date 12 lowest 70 date 14

Greatest daily range 17 date 25

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.7 | 1913 | 79.0 | 1920 | 79.2 | 1927 | 78.3 |
| 1907 | 78.2 | 1914 | 78.2 | 1921 | 78.5 | 1928 | 78.4 |
| 1908 | 78.5 | 1915 | 79.6 | 1922 | 78.4 | 1929 | 78.5 |
| 1909 | 77.4 | 1916 | 77.9 | 1923 | 78.7 | 1930 | 79.4 |
| 1910 | 77.8 | 1917 | 77.6 | 1924 | 77.8 | 1931 | 79.5 |
| 1911 | 78.8 | 1918 | 78.5 | 1925 | 78.8 | 1932 | 78.7 |
| 1912 | 79.1 | 1919 | 79.3 | 1926 | 79.5 | 1933 | |

Mean of this month for 27 years 78.6

Absolute maximum for this month for 27 years 95

Absolute minimum for this month for 27 years 70

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 27 years +0.1

### EVAPORATION

Total this month 3.047 Average daily .102 inches

### PRECIPITATION

Total this month 9.23

Greatest precipitation in 24 hours 2.31 date 14-15

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1885 | 12 6.46 | 1897 | - | 1909 | 9.90 | 1921 | 7.86 |
| 1886 | 20 5.00 | 1898 | - | 1910 | 8.82 | 1922 | 7.92 |
| 1887 | 1 13.76 | 1899 | 8.48 | 1911 | 3.40 | 1923 | 5.59 |
| 1888 | 2 6.18 | 1900 | 8.93 | 1912 | 5.80 | 1924 | 8.41 |
| 1889 | - | 1901 | 12.65 | 1913 | 8.15 | 1925 | 18.34 |
| 1890 | - | 1902 | - | 1914 | 7.28 | 1926 | 12.33 |
| 1891 | - | 1903 | - | 1915 | 2.85 | 1927 | 10.83 |
| 1892 | - | 1904 | - | 1916 | 4.39 | 1928 | 8.78 |
| 1893 | - | 1905 | 7.33 | 1917 | 7.35 | 1929 | 9.34 |
| 1894 | - | 1906 | 8.57 | 1918 | 5.20 | 1930 | 2.30 |
| 1895 | - | 1907 | 12.64 | 1919 | 8.93 | 1931 | 7.81 |
| 1896 | - | 1908 | 4.28 | 1920 | 4.85 | 1932 | 9.23 |

Average of this month for 22 years 8.00

Total from January 1, 19 35 to date 27.15

Average from January 1, to date 21.19

Excess (+) or deficiency (—) from January 1, 19 32 to date as compared with average of corresponding period +5.96

### WIND

Prevailing direction NW Total movement 3484 miles

Average hourly velocity 4.8 miles per hour

Maximum velocity (for five minutes) 30 miles per hour

from S on 7

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 8 Cloudy 22

Days on which .01 inch, or more, of rain occurred 15

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 5, 6, 8, 9, 11, 14, 20, 22, 24, 25 & 27

Earthquakes 5, 10, 14, 15, 20, 22, 24, 28 & 29

NOTE. "T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

*For 24 hour period ending at 8:00 a.m.

066-5

MR 19178—Panama Canal—3-12-30—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month July, 1932

| m | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 83 | 75 | 79 | .079 | .07 | 82.4 | Cldy |
| 2 | 88 | 74 | 79 | .099 | 0 | 83.1 | Cldy |
| 3 | 89 | 73 | 78 | .139 | 0 | 84.3 | Pt.Cldy |
| 4 | 90 | 74 | 81 | .083 | .01 | 84.2 | Pt.Cldy |
| 5 | 84 | 76 | 79 | .130 | .01 | 83.1 | Cldy |
| 6 | 82 | 75 | 78 | .106 | .01 | 81.9 | Cldy |
| 7 | 87 | 75 | 78 | .067 | 1.23 | 82.0 | Cldy |
| 8 | 87 | 73 | 79 | .051 | .02 | 82.5 | Cldy |
| 9 | 89 | 75 | 80 | .045 | 0 | 83.7 | Pt.Cldy |
| 10 | 90 | 73 | 78 | .102 | .56 | 83.2 | Cldy |
| 11 | 89 | 75 | 79 | .082 | T | 83.0 | Cldy |
| 12 | 89 | 76 | 81 | .090 | 0 | 82.8 | Pt.Cldy |
| 13 | 91 | 75 | 81 | .216 | .17 | 83.3 | Pt.Cldy |
| 14 | 89 | 77 | 82 | .154 | 0 | 82.8 | Cldy |
| 15 | 92 | 76 | 81 | .086 | .06 | 82.9 | Cldy |
| 16 | 89 | 76 | 80 | .111 | .23 | 83.6 | Pt.Cldy |
| 17 | 87 | 75 | 79 | .118 | .14 | 82.8 | Cldy |
| 18 | 90 | 75 | 81 | .102 | .15 | 82.8 | Cldy |
| 19 | 84 | 75 | 78 | .134 | .18 | 82.2 | Cldy |
| 20 | 81 | 74 | 77 | .083 | .54 | 81.3 | Cldy |
| 21 | 86 | 72 | 79 | .011 | 0 | 83.0 | Pt.Cldy |
| 22 | 87 | 75 | 80 | .071 | 0 | 82.8 | Cldy |
| 23 | 80 | 75 | 76 | .181 | .25 | 81.8 | Cldy |
| 24 | 87 | 73 | 78 | .090 | 0 | 82.1 | Pt.Cldy |
| 25 | 87 | 76 | 79 | .138 | 0 | 83.5 | Cldy |
| 26 | 88 | 75 | 79 | .137 | .17 | 83.2 | Cldy |
| 27 | 85 | 74 | 79 | .079 | 0 | 83.5 | Cldy |
| 28 | 87 | 75 | 80 | .118 | 0 | 85.8 | Pt.Cldy |
| 29 | 79 | 76 | 74 | .100 | 1.24 | 82.4 | Cldy |
| 30 | 85 | 69 | 76 | .070 | .20 | 81.7 | Cldy |
| 31 | 86 | 72 | 77 | .068 | 1.05 | 81.4 | Cldy |
| | 2687 | 2309 | * — | 3.140 | 6.29 | * — | |
| | 86.7 | 74.5 | 78.8 | .101 | | 82.8 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL: INCHES)

(Bi-hourly) 29.811 29.930 1
Mean 29.710 highest date 11
Lowest date

### TEMPERATURE

92 15 69 30
Highest date lowest date
Greatest daily range 17 date 10

Bihourly means for this month in:

| | | | |
|---|---|---|---|
| | 78.0 | 79.1 | 78.9 | 78.7 |
| 1906 | 78.6 | 1913 80.7 | 1920 78.9 | 1927 79.9 |
| 1907 | 78.3 | 1914 78.4 | 1921 79.8 | 1928 79.0 |
| 1908 | 77.5 | 1915 77.4 | 1922 79.3 | 1929 80.0 |
| 1909 | 76.6 | 1916 77.8 | 1923 78.2 | 1930 78.4 |
| 1910 | 79.9 | 1917 79.4 | 1924 78.3 | 1931 78.8 |
| 1911 | 78.9 | 1918 79.1 | 1925 78.9 | 1932 |
| 1912 | | 1919 | 1926 | 1933 |

Mean of this month for 27 years 78.8
Absolute maximum for this month for 27 years 95
Absolute minimum for this month for 27 years 67
Average daily excess (+) or deficiency (—) of this month as compared with mean of 27 years + -0.0

### EVAPORATION

Total this month 3.140 Average daily .101 inches

### PRECIPITATION

Total this month 6.29
Greatest precipitation in 24 hours 1.25 date 30 & 31

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1879 7.91 | 1897 — | 1909 9.01 | 1921 8.07 |
| 1880 9.88 | 1898 3.55 | 1910 9.26 | 1922 5.08 |
| 1881 7.20 | 1899 8.21 | 1911 5.78 | 1923 3.15 |
| 1882 5.35 | 1900 15.82 | 1912 10.25 | 1924 5.97 |
| 1889 — | 1901 14.11 | 1913 4.85 | 1925 3.83 |
| 1890 — | 1902 — | 1914 4.32 | 1926 9.93 |
| 1891 — | 1903 — | 1915 6.93 | 1927 5.22 |
| 1892 — | 1904 — | 1916 10.13 | 1928 7.91 |
| 1893 — | 1905 4.31 | 1917 10.17 | 1929 5.22 |
| 1894 — | 1906 9.01 | 1918 5.13 | 1930 4.04 |
| 1895 — | 1907 4.28 | 1919 4.75 | 1931 10.46 |
| 1896 — | 1908 6.83 | 1920 6.16 | 1932 6.29 |

Average of this month for 36 years 7.28
Total from January 1, 1932 to date 33.44
Average from January 1, to date 25.45
Excess (+) or deficiency (—) from January 1, 1932 to date as compared with average of corresponding period +4.99

### WIND

Prevailing direction N.E. Total movement 4349 miles
Average hourly velocity 5.8 miles per hour
Maximum velocity (for five minutes) 22 miles per hour
from N. on 31

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 9 Cloudy 22
Days on which .01 inch, or more, of rain occurred 19

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None
Fogs: Light 4th
Fogs: Dense 4th and 8th
Thunderstorms 1, 7, 15, 18, 22, 23, 25, & 26
Earthquakes 6, 10, 11, 14, 20 & 21.

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 19178—Panama Canal—3-12-30—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month August, 1932.

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 74 | 78 | .060 | .37 | 81.7 | Cldy. |
| 2 | 86 | 75 | 77 | .055 | .10 | 80.9 | Cldy. |
| 3 | 87 | 74 | 79 | .102 | .31 | 81.5 | Pt.Cldy. |
| 4 | 88 | 75 | 78 | .118 | .42 | 81.7 | Cldy. |
| 5 | 85 | 74 | 78 | .079 | 0 | 81.4 | Cldy. |
| 6 | 89 | 74 | 81 | .079 | 0 | 82.5 | Pt.Cldy. |
| 7 | 86 | 75 | 78 | .118 | .92 | 83.0 | Cldy. |
| 8 | 82 | 74 | 77 | .118 | .20 | 82.0 | Cldy. |
| 9 | 84 | 73 | 78 | .059 | .18 | 83.2 | Pt.Cldy. |
| 10 | 84 | 72 | 77 | .118 | 1.41 | 83.0 | Cldy. |
| 11 | 85 | 73 | 78 | .079 | T | 83.5 | Pt.Cldy. |
| 12 | 83 | 73 | 76 | .079 | .35 | 82.2 | Cldy. |
| 13 | 88 | 73 | 79 | .079 | .34 | 82.2 | Pt.Cldy. |
| 14 | 85 | 75 | 79 | .078 | 0 | 82.2 | Cldy. |
| 15 | 86 | 75 | 80 | .118 | .21 | 82.9 | Pt.Cldy. |
| 16 | 88 | 75 | 81 | .130 | 0 | 83.2 | Pt.Cldy. |
| 17 | 88 | 76 | 80 | .201 | 0 | 83.0 | Cldy. |
| 18 | 82 | 75 | 77 | .174 | .96 | 82.4 | Cldy. |
| 19 | 86 | 72 | 78 | .090 | .22 | 82.9 | Cldy. |
| 20 | 82 | 75 | 78 | .106 | 1.06 | 82.3 | Cldy. |
| 21 | 85 | 74 | 79 | .040 | .10 | 82.2 | Pt.Cldy. |
| 22 | 85 | 76 | 80 | .138 | T | 82.2 | Pt.Cldy. |
| 23 | 85 | 75 | 78 | .118 | .09 | 83.2 | Cldy. |
| 24 | 86 | 74 | 77 | .067 | .19 | 83.3 | Cldy. |
| 25 | 84 | 73 | 76 | .059 | .15 | 83.0 | Cldy. |
| 26 | 86 | 72 | 79 | .047 | .01 | 82.8 | Pt.Cldy. |
| 27 | 86 | 72 | 78 | .153 | T | 82.7 | Cldy. |
| 28 | 87 | 72 | 79 | .099 | T | 83.0 | Pt.Cldy. |
| 29 | 86 | 72 | 79 | .099 | .02 | 82.9 | Cldy. |
| 30 | 84 | 75 | 78 | .074 | T | 82.6 | Cldy. |
| 31 | 88 | 74 | 81 | .080 | 0 | 83.1 | Pt.Cldy. |
| | 2654 | 2293 | * - | 3.014 | 7.61 | * - | |
| | 85.6 | 74.0 | 78.4 | .097 | - | 82.5 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL: INCHES)

(Bi-hourly) Mean 29.818 highest 29.960 date 27
Lowest 29.700 date 3

### TEMPERATURE

Highest 89 date 6 lowest 72 date 10, 26 (& 28.
Greatest daily range 15 date 13

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.1 | 1913 | 78.8 | 1920 | 78.7 | 1927 | 78.8 |
| 1907 | 78.6 | 1914 | 79.4 | 1921 | 78.8 | 1928 | 78.2 |
| 1908 | 78.6 | 1915 | 79.0 | 1922 | 79.1 | 1929 | 77.7 |
| 1909 | 77.8 | 1916 | 77.1 | 1923 | 78.7 | 1930 | 79.3 |
| 1910 | 77.4 | 1917 | 77.6 | 1924 | 77.7 | 1931 | 79.8 |
| 1911 | 75.5 | 1918 | 79.1 | 1925 | 79.1 | 1932 | 78.4 |
| 1912 | 78.8 | 1919 | 79.5 | 1926 | 79.2 | 1933 | |

Mean of this month for 27 years 78.6
Absolute maximum for this month for 27 years 94
Absolute minimum for this month for 27 years 68
Average daily excess. (+) or deficiency (—) of this month as compared with mean of 27 years -0.2

### EVAPORATION

Total this month 3.014 Average daily .097 inches

### PRECIPITATION

Total this month 7.61
Greatest precipitation in 24 hours 1.39 date 9 & 10

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1887 | 7.24 | 1897 | - | 1907 | 6.84 | 1917 | 9.51 |
| 1888 | 11.46 | 1898 | 6.89 | 1908 | 12.00 | 1918 | 1.46 |
| 1889 | 4.49 | 1899 | 8.60 | 1909 | 7.21 | 1919 | 5.37 |
| 1890 | 4.05 | 1900 | 6.00 | 1910 | 6.33 | 1920 | 14.45 |
| 1891 | - | 1901 | 8.67 | 1911 | 8.20 | 1921 | 10.83 |
| 1892 | - | 1902 | - | 1912 | 6.09 | 1922 | 10.45 |
| 1893 | - | 1903 | - | 1913 | 15.24 | 1923 | 7.76 |
| 1894 | - | 1904 | - | 1914 | 10.53 | 1924 | 6.87 |
| 1895 | - | 1905 | 5.31 | 1915 | 7.42 | 1925 | 11.96 |
| 1896 | - | 1906 | 6.43 | 1916 | 3.84 | 1926 | 4.34 |
| 1897 | - | 1907 | 7.46 | 1917 | 5.82 | 1927 | 4.28 |
| 1898 | - | 1908 | 11.48 | 1918 | 12.22 | 1928 | 7.61 |
| 1899 | | 1909 | | 1919 | | 1929 | 7.91 |

Average of this month for 32 years
Total from January 1, 1932 to date 41.05
Average from January 1, to date 36.38
Excess (+) or deficiency (—) from January 1, 1932 to date as compared with average of corresponding period 32 + 4.69

### WIND

Prevailing direction NW Total movement 3599 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity (for five minutes) 20 miles per hour
from NW on 6th

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 12 Cloudy 19
Days on which .01 inch, or more, of rain occurred 20

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms 2, 4, 12 & 29
Earthquakes 10,13,24,26 & 28.

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

066-5

# THE PANAMA CANAL

MR 19178--Panama Canal--3-12-30--500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month September, 1932.

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a. m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 79 | .244 | T | 82.8 | cldy |
| 2 | 91 | 75 | 80 | .065 | .12 | 82.4 | ptcldy |
| 3 | 84 | 74 | 79 | .115 | .02 | 83.3 | cldy |
| 4 | 87 | 74 | 79 | .094 | 0 | 83.7 | ptcldy |
| 5 | 85 | 75 | 79 | .110 | .06 | 83.4 | ptcldy |
| 6 | 87 | 75 | 80 | .051 | .02 | 83.8 | ptcldy |
| 7 | 88 | 74 | 81 | .134 | 0 | 83.7 | cldy |
| 8 | 86 | 75 | 79 | .071 | .45 | 83.6 | cldy |
| 9 | 86 | 75 | 78 | .126 | .14 | 83.7 | cldy |
| 10 | 88 | 75 | 81 | .071 | .21 | 83.9 | ptcldy |
| 11 | 90 | 76 | 82 | .094 | .04 | 84.2 | ptcldy |
| 12 | 83 | 74 | 77 | .189 | .05 | 83.2 | cldy |
| 13 | 83 | 71 | 76 | .099 | .20 | 81.7 | cldy |
| 14 | 85 | 73 | 78 | .079 | .12 | 81.1 | cldy |
| 15 | 87 | 73 | 79 | .130 | .07 | 81.7 | ptcldy |
| 16 | 87 | 74 | 80 | .090 | .01 | 83.1 | ptcldy |
| 17 | 92 | 76 | 83 | .083 | 0 | 84.2 | ptcldy |
| 18 | 85 | 76 | 80 | .150 | 0 | 83.6 | cldy |
| 19 | 87 | 76 | 79 | .114 | .02 | 82.8 | cldy |
| 20 | 86 | 75 | 77 | .055 | .60 | 82.2 | cldy |
| 21 | 85 | 71 | 78 | .106 | .11 | 81.8 | cldy |
| 22 | 86 | 74 | 78 | .100 | .01 | 83.0 | ptcldy |
| 23 | 85 | 72 | 78 | .118 | .03 | 83.5 | cldy |
| 24 | 85 | 73 | 76 | .079 | 2.21 | 83.3 | cldy |
| 25 | 85 | 74 | 79 | .079 | .31 | 83.6 | cldy |
| 26 | 87 | 71 | 76 | .106 | 1.44 | 82.9 | cldy |
| 27 | 82 | 72 | 76 | .087 | .11 | 81.5 | cldy |
| 28 | 84 | 73 | 78 | .051 | .10 | 82.7 | ptcldy |
| 29 | 81 | 75 | 77 | .083 | .77 | 82.1 | cldy |
| 30 | 85 | 72 | 78 | .060 | .01 | 82.3 | cldy |
| | 2578 | 2218 | * - | 3.033 | 7.23 | * - | |
| | 85.9 | 73.9 | 78.7 | .101 | | 83.0 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL, INCHES)

(Bi-hourly) Mean 29.819 highest 29.910 date 1, 26, 27
Lowest 29.700 date 11

### TEMPERATURE

Highest 92 date 17 lowest 71 date 26
Greatest daily range 16 date 2

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.3 | 1913 | 78.5 | 1920 | 78.5 | 1927 | 77.7 |
| 1907 | 78.5 | 1914 | 78.5 | 1921 | 78.3 | 1928 | 78.9 |
| 1908 | 78.7 | 1915 | 79.1 | 1922 | 78.1 | 1929 | 77.9 |
| 1909 | 78.2 | 1916 | 77.6 | 1923 | 78.8 | 1930 | 79.7 |
| 1910 | 77.8 | 1917 | 77.6 | 1924 | 78.0 | 1931 | 78.7 |
| 1911 | 79.0 | 1918 | 78.9 | 1925 | 78.0 | 1932 | 78.7 |
| 1912 | 78.0 | 1919 | 78.2 | 1926 | 79.0 | 1933 | |

Mean of this month for 27 years 78.5
Absolute maximum for this month for 27 years 94
Absolute minimum for this month for 27 years 68
Average daily excess, (+) ~~deficiency~~ (—) of this month as compared with mean of 27 years plus 0.2

### EVAPORATION

Total this month 3.033 Average daily 101 inches

### PRECIPITATION

Total this month 7.23
Greatest precipitation in 24 hours 2.51 date 24, 25

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 9.02 | 1897 | - | 1909 | 3.86 | 1921 | 3.27 |
| 1880 | 7.91 | 1898 | 7.94 | 1910 | 4.84 | 1922 | 8.18 |
| 1881 | 8.94 | 1899 | 6.15 | 1911 | 6.03 | 1923 | 4.60 |
| 1882 | 4.05 | 1900 | 7.76 | 1912 | 8.38 | 1924 | 12.55 |
| 1889 | - | 1901 | 15.06 | 1913 | 11.43 | 1925 | 9.01 |
| 1890 | - | 1902 | - | 1914 | 9.60 | 1926 | 8.41 |
| 1891 | - | 1903 | - | 1915 | 3.69 | 1927 | 8.53 |
| 1892 | - | 1904 | - | 1916 | 8.02 | 1928 | 10.44 |
| 1893 | - | 1905 | 7.46 | 1917 | 11.53 | 1929 | 9.26 |
| 1894 | - | 1906 | 4.83 | 1918 | 7.03 | 1930 | 7.61 |
| 1895 | - | 1907 | 11.14 | 1919 | 10.84 | 1931 | 11.09 |
| 1896 | - | 1908 | 5.93 | 1920 | 9.14 | 1932 | 7.23 |

Average of this month for 36 years 8.02
Total from January 1, 19 32 to date 48.28
Average from January 1, to date 44.38
Excess (+) or deficiency (—) from January 1, 19 32 to date as compared with average of corresponding period plus 3.90

### WIND

Prevailing direction NW Total movement 3361 miles
Average hourly velocity 4.7 miles per hour
Maximum velocity (for five minutes) 18 miles per hour
from N on 12

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 11 Cloudy 19
Days on which .01 inch, or more, of rain occurred 25

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar 16
Fogs: Light none
Fogs: Dense none
Thunderstorms 8, 9, 10, 15, 16, 18, 19, 20, 24, 26
Earthquakes 1, 5 & 14

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

066-5

MR 19178—Panama Canal—3-12-30—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

**Station,** Balboa Heights, C. Z. ; **Month** October, **193** 2

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water. Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 73 | 79 | .094 | .04 | 83.2 | Pt.Cldy. |
| 2 | 83 | 74 | 77 | .130 | .09 | 83.2 | Cldy. |
| 3 | 84 | 71 | 77 | .051 | .04 | 83.2 | Cldy. |
| 4 | 87 | 74 | 78 | .075 | .27 | 83.6 | Pt.Cldy. |
| 5 | 90 | 75 | 79 | .059 | .41 | 82.9 | Cldy. |
| 6 | 80 | 75 | 77 | .122 | .04 | 80.2 | Cldy. |
| 7 | 85 | 77 | 80 | .083 | 0 | 81.8 | Pt.Cldy. |
| 8 | 85 | 76 | 80 | .134 | 0 | 82.9 | Pt.Cldy. |
| 9 | 86 | 74 | 79 | .066 | .67 | 83.8 | Pt.Cldy. |
| 10 | 84 | 75 | 78 | .142 | .16 | 83.4 | Cldy. |
| 11 | 82 | 73 | 78 | .130 | .01 | 82.8 | Cldy. |
| 12 | 85 | 77 | 80 | .162 | 0 | 81.2 | Cldy. |
| 13 | 86 | 75 | 80 | .169 | 0 | 82.4 | Pt.Cldy. |
| 14 | 86 | 73 | 79 | .150 | .79 | 82.4 | Pt.Cldy. |
| 15 | 84 | 72 | 77 | .201 | .05 | 83.0 | Cldy. |
| 16 | 84 | 73 | 76 | .122 | 2.04 | 82.8 | Cldy. |
| 17 | 84 | 73 | 79 | .050 | .15 | 82.3 | Cldy. |
| 18 | 87 | 75 | 79 | .071 | 0 | 83.2 | Pt.Cldy. |
| 19 | 87 | 72 | 79 | .059 | 0 | 84.0 | Pt.Cldy. |
| 20 | 85 | 74 | 78 | .146 | 1.78 | 83.2 | Cldy. |
| 21 | 83 | 73 | 78 | .094 | .85 | 80.2 | Cldy. |
| 22 | 84 | 71 | 77 | .050 | .14 | 80.8 | Pt. Cldy. |
| 23 | 86 | 74 | 79 | .142 | .01 | 81.8 | Cldy. |
| 24 | 88 | 75 | 80 | .077 | .30 | 82.4 | Pt.Cldy. |
| 25 | 86 | 76 | 78 | .100 | .83 | 81.7 | Cldy. |
| 26 | 81 | 73 | 78 | .138 | 1.36 | 79.2 | Cldy. |
| 27 | 84 | 75 | 78 | .098 | .11 | 81.3 | Cldy. |
| 28 | 82 | 73 | 77 | .071 | .25 | 81.2 | Cldy. |
| 29 | 85 | 72 | 78 | .067 | 0 | 81.2 | Cldy. |
| 30 | 86 | 74 | 78 | .103 | .31 | 81.2 | Cldy. |
| 31 | 85 | 73 | 75 | .066 | .90 | 80.8 | Cldy |
| Total | 2629 | 2290 | * -- | 3.222 | 11.60 | * - - | |
| Mean | 84.8 | 73.9 | 78.1 | .104 | - - | 82.2 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL: INCHES)

(Bi-hourly) Mean 29.823 highest 29.960 date 13

Lowest 29.696 date 20

### TEMPERATURE

Highest 90 date 5 lowest 71 date 22

Greatest daily range 15 date 19

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 78.0 | | 78.3 | | 77.8 | | 78.1 |
| 1906 | 77.5 | 1913 | 78.0 | 1920 | 77.5 | 1927 | 75.2 |
| 1907 | 77.8 | 1914 | 77.8 | 1921 | 77.5 | 1928 | 77.8 |
| 1908 | 77.5 | 1915 | 76.8 | 1922 | 77.7 | 1929 | 78.2 |
| 1909 | 77.2 | 1916 | 77.1 | 1923 | 77.6 | 1930 | 78.8 |
| 1910 | 77.9 | 1917 | 77.7 | 1924 | 78.4 | 1931 | 78.1 |
| 1911 | 77.2 | 1918 | 78.1 | 1925 | 78.8 | 1932 | |
| 1912 | | 1919 | 27 | 1926 | | 1927 | 77.8 |

Mean of this month for 27 years

Absolute maximum for this month for 27 years 95

Absolute minimum for this month for 27 years 68

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 27 years +0.5

### EVAPORATION

Total this month 3.222 Average daily .104 inches

### PRECIPITATION

Total this month 11.60

Greatest precipitation in 24 hours 2.80 date 20 & 21

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 9.50 | | 11 | | 8.77 | | 13.86 |
| 1885 | 11.81 | 1897 | 13.48 | 1909 | 5.56 | 1921 | 9.03 |
| 1886 | 9.68 | 1898 | 11.99 | 1910 | 10.90 | 1922 | 15.02 |
| 1887 | 5.69 | 1899 | 20.27 | 1911 | 17.89 | 1923 | 10.38 |
| 1888 | - | 1900 | 13.77 | 1912 | 8.30 | 1924 | 7.37 |
| 1889 | - | 1901 | - | 1913 | 6.44 | 1925 | 9.93 |
| 1890 | - | 1902 | - | 1914 | 10.49 | 1926 | 8.36 |
| 1891 | - | 1903 | - | 1915 | 10.17 | 1927 | 10.76 |
| 1892 | - | 1904 | 8.49 | 1916 | 6.14 | 1928 | 7.89 |
| 1893 | - | 1905 | 4.35 | 1917 | 9.16 | 1929 | 4.24 |
| 1894 | - | 1906 | 9.26 | 1918 | 12.11 | 1930 | 9.26 |
| 1895 | - | 1907 | 9.79 | 1919 | 6.43 | 1931 | 11.60 |
| 1896 | | 1908 | 36 | 1920 | | 1932 | 10.16 |

Average of this month for 32 years 59.83

Total from January 1, 19 to date 54.54

Average from January 1, to date 32

Excess (+) or deficiency (—) from January 1, 19 to date as compared with average of corresponding period +5.54

### WIND

Prevailing direction S Total movement 4613 miles

Average hourly velocity 6.1 miles per hour

Maximum velocity (for five minutes) 25 miles per hour

from 10 on

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 11 Cloudy 20

Days on which .01 inch, or more, of rain occurred 24

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense 28 & 29

Thunderstorms 4, 5, 14, 18, 20, 21, 25, 26, 31

Earthquakes 2 & 29

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

066-5

# THE PANAMA CANAL

MR 19178—Panama Canal—3-12-30—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month November, 1932.

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 85 | 72 | 77 | .075 | .24 | 80.2 | Cldy |
| 88 | 73 | 78 | .070 | .30 | 81.1 | Pt Cldy |
| 86 | 73 | 77 | .130 | .21 | 81.1 | Cldy |
| 85 | 71 | 76 | .100 | 1.09 | 81.5 | Cldy |
| 85 | 72 | 77 | .078 | .92 | 80.7 | Cldy |
| 79 | 74 | 76 | .158 | .26 | 79.2 | Cldy |
| 82 | 74 | 78 | .031 | .02 | 78.7 | Cldy |
| 83 | 76 | 79 | .130 | 0 | 78.8 | Cldy |
| 84 | 75 | 78 | .130 | .01 | 79.4 | Pt Cldy |
| 86 | 74 | 78 | .134 | .16 | 80.1 | Cldy |
| 85 | 73 | 78 | .082 | 0 | 80.2 | Cldy |
| 86 | 72 | 79 | .138 | 0 | 80.7 | Cldy |
| 83 | 74 | 78 | .181 | .05 | 80.2 | Pt Cldy |
| 86 | 74 | 79 | .177 | .04 | 80.8 | Cldy |
| 88 | 73 | 79 | .100 | .25 | 80.7 | Cldy |
| 84 | 74 | 78 | .201 | 0 | 80.8 | Cldy |
| 86 | 73 | 78 | .150 | .08 | 81.2 | Cldy |
| 85 | 72 | 78 | .126 | .01 | 81.6 | Cldy |
| 87 | 72 | 79 | .067 | .31 | 81.6 | Pt Cldy |
| 82 | 72 | 77 | .165 | .66 | 81.9 | Cldy |
| 84 | 73 | 78 | .063 | T | 81.0 | Cldy |
| 85 | 73 | 77 | .110 | .45 | 79.9 | Cldy |
| 77 | 73 | 75 | .091 | .70 | 79.8 | Cldy |
| 89 | 74 | 79 | .040 | .33 | 79.7 | Cldy |
| 84 | 74 | 78 | .157 | 0 | 79.9 | Cldy |
| 86 | 75 | 78 | .091 | .66 | 80.2 | Cldy |
| 87 | 73 | 77 | .102 | .35 | 80.1 | Cldy |
| 78 | 73 | 74 | .091 | 1.02 | 78.2 | Cldy |
| 78 | 71 | 73 | .050 | 2.03 | 76.6 | Cldy |
| 80 | 73 | 76 | .099 | .03 | 76.8 | Cldy |
| 2523 | 2195 | * — | 3.317 | 10.18 | * --- | |
| 84.1 | 73.2 | 77.3 | .111 | ---- | 80.1 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.817 highest 29.940 date 20

Lowest 29.690 date 6

### TEMPERATURE

Highest 89 date 24; lowest 71 date 4

Greatest daily range 15 date 2

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 77.7 | 1913 | 77.4 | 1920 | 78.2 | 1927 | 78.3 |
| 1907 | 77.7 | 1914 | 78.0 | 1921 | 78.5 | 1928 | 76.9 |
| 1908 | 76.9 | 1915 | 76.9 | 1922 | 77.0 | 1929 | 78.3 |
| 1909 | 75.7 | 1916 | 76.5 | 1923 | 78.6 | 1930 | 79.2 |
| 1910 | 77.3 | 1917 | 76.1 | 1924 | 76.7 | 1931 | 76.4 |
| 1911 | 77.6 | 1918 | 78.2 | 1925 | 78.6 | 1932 | 77.3 |
| 1912 | 77.1 | 1919 | 77.4 | 1926 | 77.7 | 1933 | |

Mean of this month for 27 years 77.5

Absolute maximum for this month for 27 years 94

Absolute minimum for this month for 27 years 67

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 27 years -0.2

### EVAPORATION

Total this month 3.317 Average daily .111 inches

### PRECIPITATION

Total this month 10.18

Greatest precipitation in 24 hours 2.04 date 28&29

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 19.21 | 1897 | --- | 1909 | 15.14 | 1921 | 7.11 |
| 1880 | 6.46 | 1898 | 11.13 | 1910 | 4.29 | 1922 | 8.44 |
| 1881 | 9.72 | 1899 | 8.93 | 1911 | 7.57 | 1923 | 8.81 |
| 1882 | 10.91 | 1900 | 13.01 | 1912 | 6.38 | 1924 | 12.63 |
| 1889 | --- | 1901 | 12.40 | 1913 | 10.63 | 1925 | 3.52 |
| 1890 | --- | 1902 | --- | 1914 | 10.35 | 1926 | 9.63 |
| 1891 | --- | 1903 | --- | 1915 | 7.05 | 1927 | 5.82 |
| 1892 | --- | 1904 | --- | 1916 | 8.77 | 1928 | 20.51 |
| 1893 | --- | 1905 | 8.81 | 1917 | 13.77 | 1929 | 12.62 |
| 1894 | --- | 1906 | 13.57 | 1918 | 9.61 | 1930 | 5.12 |
| 1895 | --- | 1907 | 10.51 | 1919 | 4.97 | 1931 | 12.60 |
| 1896 | --- | 1908 | 9.12 | 1920 | 19.22 | 1932 | 10.18 |

Average of this month for 36 years 10.24

Total from January 1, 19 32 to date 70.06

Average from January 1, to date 54.78

Excess (+) or deficiency (—) from January 1, 19 to date as compared with average of corresponding period +5.28

### WIND

Prevailing direction NW Total movement 5716 miles

Average hourly velocity 7.9 miles per hour

Maximum velocity (for five minutes) 33 miles per hour

from NE on 6

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 4 Cloudy 26

Days on which .01 inch, or more, of rain occurred 24

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense 1st & 19th

Thunderstorms 1,5,6,18,19 & 23

Earthquakes 11 & 13

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

066-5

MR 19178—Panama Canal—3-12-30—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

**Station,** Balboa Heights, C. Z. ; **Month** December, **1932**

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 80 | 73 | 76 | .090 | .01 | 78.6 | Cldy. |
| 2 | 84 | 73 | 77 | .055 | .03 | 79.5 | Pt.Cldy. |
| 3 | 87 | 74 | 78 | .103 | 0 | 79.4 | Pt.Cldy. |
| 4 | 84 | 74 | 77 | .090 | .09 | 78.9 | Cldy. |
| 5 | 87 | 73 | 79 | .197 | 0 | 79.0 | Cldy. |
| 6 | 87 | 74 | 78 | .133 | .15 | 79.0 | Pt.Cldy. |
| 7 | 87 | 75 | 80 | .138 | T | 78.7 | Pt.Cldy. |
| 8 | 85 | 75 | 79 | .107 | .29 | 78.5 | Cldy. |
| 9 | 88 | 74 | 79 | .086 | 0 | 78.3 | Cldy. |
| 10 | 82 | 73 | 76 | .200 | .64 | 78.3 | Cldy. |
| 11 | 86 | 73 | 78 | .087 | .28 | 79.2 | Pt.Cldy. |
| 12 | 88 | 73 | 79 | .110 | 0 | 80.3 | Cldy. |
| 13 | 87 | 73 | 79 | .095 | 0 | 80.6 | Cldy. |
| 14 | 88 | 72 | 79 | .130 | .08 | 81.3 | Pt.Cldy. |
| 15 | 87 | 72 | 77 | .165 | .38 | 81.2 | Cldy. |
| 16 | 87 | 71 | 78 | .149 | .01 | 81.3 | Pt.Cldy. |
| 17 | 88 | 71 | 78 | .154 | T | 80.8 | Pt.Cldy. |
| 18 | 86 | 72 | 77 | .106 | .09 | 81.4 | Pt.Cldy. |
| 19 | 88 | 71 | 78 | .185 | .02 | 81.2 | Pt.Cldy. |
| 20 | 86 | 72 | 77 | .248 | .13 | 80.8 | Pt.Cldy. |
| 21 | 87 | 73 | 78 | .090 | T | 79.7 | Cldy. |
| 22 | 81 | 73 | 80 | .100 | 0 | 79.6 | Pt.Cldy. |
| 23 | 85 | 74 | 78 | .099 | .18 | 80.3 | Cldy. |
| 24 | 79 | 75 | 76 | .149 | .06 | 80.0 | Cldy. |
| 25 | 85 | 74 | 78 | .040 | .04 | 80.2 | Cldy. |
| 26 | 80 | 74 | 76 | .067 | .03 | 80.8 | Cldy. |
| 27 | 86 | 72 | 78 | .083 | 0 | 80.7 | Cldy. |
| 28 | 88 | 72 | 77 | .106 | .15 | 80.5 | Cldy. |
| 29 | 89 | 72 | 78 | .083 | 0 | 80.2 | Pt.Cldy. |
| 30 | 87 | 69 | 77 | .122 | 0 | 79.8 | Pt.Cldy. |
| 31 | 88 | 70 | 78 | .205 | 0 | 80.4 | Pt.Cldy. |
| Total | 2667 | 2256 | * -- | 3.772 | 2.66 | * -- | |
| Mean | 86.0 | 72.8 | 77.9 | .122 | 0 | 80.0 | |

### ATMOSPHERIC PRESSURE
(REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)
Mean 29.822 highest 29.949 date 15
Lowest 29.692 date 22

### TEMPERATURE

Highest 91 date 22 ; lowest 69 date 30
Greatest daily range 18 date 22
Bihourly Mean for this month in:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1906 | 77.4 | 1913 | 78.3 | 1920 | 78.5 | 1927 | 78.6 |
| 1907 | 79.1 | 1914 | 79.3 | 1921 | 78.3 | 1928 | 78.1 |
| 1908 | 77.6 | 1915 | 78.5 | 1922 | 77.4 | 1929 | 78.3 |
| 1909 | 76.6 | 1916 | 77.6 | 1923 | 78.2 | 1930 | 79.6 |
| 1910 | 77.3 | 1917 | 76.7 | 1924 | 77.7 | 1931 | 78.5 |
| 1911 | 79.3 | 1918 | 79.6 | 1925 | 79.5 | 1932 | 77.9 |
| 1912 | 78.7 | 1919 | 78.4 | 1926 | 77.7 | 1933 | |

Mean of this month for 27 years 78.2
Absolute maximum for this month for 27 years 94
Absolute minimum for this month for 27 years 66
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 27 years -0.3

### EVAPORATION

Total this month 3.772 Average daily .122 inches

### PRECIPITATION

Total this month 2.66
Greatest precipitation in 24 hours .64 date 10th
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1888 | .98 | 1897 | - | 1909 | 12.39 | 1921 | 5.19 |
| 1889 | 5.51 | 1898 | 1.89 | 1910 | 10.63 | 1922 | 3.82 |
| 1890 | 2.48 | 1899 | 4.35 | 1911 | 1.99 | 1923 | 3.94 |
| 1891 | 2.01 | 1900 | 1.85 | 1912 | 3.27 | 1924 | 8.31 |
| 1892 | - | 1901 | 2.38 | 1913 | 4.84 | 1925 | 1.88 |
| 1893 | - | 1902 | - | 1914 | 8.28 | 1926 | 8.38 |
| 1894 | - | 1903 | - | 1915 | 3.60 | 1927 | 2.95 |
| 1895 | - | 1904 | - | 1916 | 5.36 | 1928 | 6.95 |
| 1896 | - | 1905 | 4.04 | 1917 | 4.09 | 1929 | 4.17 |
| | | 1906 | 5.52 | 1918 | .55 | 1930 | 2.44 |
| | | 1907 | 3.46 | 1919 | 1.81 | 1931 | 4.96 |
| | | 1908 | 4.16 | 1920 | 1.94 | 1932 | 2.66 |

Average of this month for 36 years 4.26
Total from January 1, 1932 to date 72.72
Average from January 1, to date 69.04
Excess (+) or deficiency (—) from January 1, 1932 to date as compared with average of corresponding period +3.68

### WIND

Prevailing direction NW Total movement 4257 miles
Average hourly velocity 6.7 miles per hour
Maximum velocity (for five minutes) 20 miles per hour
from NW on 6

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 15 Cloudy 16
Days on which .01 inch, or more, of rain occurred 18

### MISCELLANEOUS PHENOMENA
(DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms 20th
Earthquakes 13th, 21st, 25th.

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

66-6

# THE PANAMA CANAL

MR 33839—Panama Canal—5-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

*Station,* Balboa Heights, C. Z. ; *Month* January, *193* 4.

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 84 | 70 | 75 | .118 | .01 | 80.0 | cldy |
| 83 | 70 | 75 | .079 | .44 | 79.2 | cldy |
| 85 | 70 | 76 | .047 | 0 | 79.0 | cldy |
| 84 | 71 | 74 | .118 | .81 | 78.8 | cldy |
| 84 | 70 | 76 | .040 | .88 | 78.8 | Pt.cldy |
| 86 | 70 | 77 | .090 | .07 | 79.2 | Pt.cldy |
| 88 | 72 | 78 | .075 | .38 | 79.5 | Pt.cldy |
| 86 | 72 | 78 | .079 | .01 | 79.7 | Ptcldy |
| 85 | 72 | 76 | .118 | .06 | 79.8 | Pt.cldy |
| 89 | 70 | 77 | .079 | T | 79.6 | Pt.cldy |
| 86 | 70 | 75 | .200 | .06 | 79.8 | Pt.cldy |
| 86 | 71 | 76 | .098 | .76 | 79.7 | cldy |
| 86 | 71 | 77 | .083 | T | 79.8 | Pt.cldy |
| 87 | 71 | 78 | .094 | 0 | 79.8 | Pt.cldy |
| 87 | 70 | 78 | .162 | 0 | 79.8 | Pt.cldy |
| 87 | 71 | 78 | .173 | 0 | 80.1 | Pt.cldy |
| 87 | 72 | 78 | .197 | 0 | 80.2 | Pt.cldy |
| 88 | 72 | 79 | .250 | 0 | 80.4 | Pt.cldy |
| 88 | 72 | 78 | .161 | .54 | 80.5 | Pt.cldy |
| 88 | 73 | 79 | .134 | T | 80.6 | Pt.cldy |
| 87 | 73 | 78 | .177 | .02 | 79.5 | Pt.cldy |
| 87 | 72 | 79 | .161 | 0 | 78.2 | Pt.cldy |
| 87 | 71 | 78 | .229 | 0 | 78.8 | Pt.cldy |
| 87 | 69 | 78 | .228 | 0 | 79.1 | Pt.cldy |
| 85 | 70 | 77 | .197 | 0 | 79.4 | Pt.cldy |
| 86 | 71 | 78 | .169 | 0 | 78.6 | Pt.cldy |
| 87 | 70 | 78 | .260 | 0 | 78.2 | Pt.cldy |
| 88 | 70 | 78 | .216 | 0 | 79.0 | Pt.cldy |
| 86 | 69 | 77 | .295 | 0 | 78.4 | Pt.cldy |
| 88 | 69 | 77 | .185 | 0 | 78.6 | Pt.cldy |
| 88 | 70 | 78 | .213 | 0 | 78.9 | Pt.cldy |
| 2680 | 2194 | * - | 4.725 | 4.04 | * - | |
| 86.5 | 70.8 | 77.4 | .152 | - | 79.4 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.854; highest 29.990 date 12

Lowest 29.720 date 18

**TEMPERATURE**

Highest 89 date 10; lowest 69 date 29

Greatest daily range 19 date 10

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.0 | 1915 | 79.6 | 1924 | 78.8 | 1933 | 77.9 |
| 1907 | 78.1 | 1916 | 78.4 | 1925 | 76.9 | 1934 | 77.2 |
| 1908 | 79.4 | 1917 | 76.7 | 1926 | 79.3 | 1935 | |
| 1909 | 77.4 | 1918 | 76.9 | 1927 | 78.5 | 1936 | |
| 1910 | 77.1 | 1919 | 78.2 | 1928 | 78.6 | 1937 | |
| 1911 | 78.2 | 1920 | 78.9 | 1929 | 77.8 | 1938 | |
| 1912 | 78.9 | 1921 | 78.2 | 1930 | 78.2 | 1939 | |
| 1913 | 78.8 | 1922 | 78.3 | 1931 | 79.5 | 1940 | |
| 1914 | 78.5 | 1923 | 77.1 | 1932 | 78.4 | 1941 | |

Mean of this month for 29 years 78.2

Absolute maximum for this month for 29 years 93

Absolute minimum for this month for 29 years 63

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 29 years -1.0

**EVAPORATION**

Total this month 4.725 Average daily .152 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.69 date 4th &5th

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | .04 | 1899 | 5.61 | 1913 | .63 | 1927 | .18 |
| 1880 | 1.89 | 1900 | .76 | 1914 | .32 | 1928 | .02 |
| 1881 | .16 | 1901 | 0 | 1915 | 2.12 | 1929 | .17 |
| 1882 | 0 | 1902 | | 1916 | 1.41 | 1930 | .05 |
| 1889 | | 1903 | | 1917 | .13 | 1931 | T |
| 1890 | | 1904 | | 1918 | 1.78 | 1932 | .38 |
| 1891 | | 1905 | | 1919 | .28 | 1933 | 1.53 |
| 1892 | | 1906 | .43 | 1920 | T | 1934 | 4.04 |
| 1893 | | 1907 | .29 | 1921 | .88 | 1935 | |
| 1894 | | 1908 | .12 | 1922 | 1.73 | 1936 | |
| 1895 | | 1909 | 2.90 | 1923 | .80 | 1937 | |
| 1896 | | 1910 | 1.22 | 1924 | T | 1938 | |
| 1897 | | 1911 | .83 | 1925 | 1.44 | 1939 | |
| 1898 | | 1912 | T | 1926 | .01 | 1940 | |

Average of this month for 36 years 90

Total from January 1, 1934 to date 4.04

Average from January 1, to date .90

Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period +3.14

**WIND**

Prevailing direction NW Total movement 4888 miles

Average hourly velocity 6.7 miles per hour

Maximum velocity (for five minutes) 20 miles per hour from N on 22

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 26 Cloudy 5

Days on which .01 inch, or more, of rain occurred 12

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar 27th

Fogs: Light 1st

Fogs: Dense none

Thunderstorms 2d, 4th & 9th

Earthquakes 15th & 29th

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

4. **Wind movement:** Comparative wind records in miles per hour for the month of January are given below:

| Stations | January average 1934 | January average Years of record | Prevailing Direction | Maximum velocity Miles | Maximum velocity Direction | Maximum velocity Date |
|---|---|---|---|---|---|---|
| Balboa Heights | 6.6 | 9.0 | NW | 30 | W | 22 |
| Pedro Miguel | 3.7 | 6.0 | NW | 20 | NW | 29 |
| Gamboa | 5.2 | 6.2 | NE | 21 | NE | 5 |
| Alhajuela | 5.1 | 5.2 | N | 22 | N | 16 |
| Gatun | 6.7 | 8.4 | N | 18 | N | 25 |
| Colon | 12.1 | 14.5 | N | 25 | NE | 21 |

5. **Evaporation:** Comparative records in inches for the month of January are given in the following table:

| Stations | Jan. 1934 | Jan. 1933 | Jan. averages Years of Record | Years of record |
|---|---|---|---|---|
| Balboa Heights | 4.725 | 5.505 | 6.372 | 27 |
| Pedro Miguel | 4.770 | 5.161 | 5.526 | 16 |
| Gamboa | 4.516 | 6.305 | 4.748 | 16 |
| Alhajuela | 5.941 | 6.196 | 5.646 | 16 |
| Gatun | 5.734 | 5.560 | 5.802 | 23 |

6. **Water temperature in degrees F.:**

| Stations | Maximum | Minimum | January average 1934 | January average Years of record |
|---|---|---|---|---|
| Balboa (sea) | 82 | 77 | 79.4 | |
| Colon (sea) | 83 | 79 | 81.1 | 78.6 |
| Gatun (lake)* | 84 | 81 | 82.6 | 80.2 |
| Alhajuela (River) | 79 | 74 | 76.8 | 82.3 |
| | | | | 77.9 |

* From readings at 8:00 a.m. and 2:00 p.m. Bi-hourly averages at other stations.

## B. Seismology.

7. Two seismic disturbances were recorded during the month on the 15th and 29th; both were of distant origin.

## C. Hydrology.

8. **Tides:** The following table presents the extreme tidal heights and ranges and monthly mean sea level (from hourly heights) at the Canal terminals for the month of January, 1934:

| Station | Highest High water Feet | Date | Lowest Low water Feet | Date | Greatest* Daily Range Feet | Date | Monthly mean sea level Feet |
|---|---|---|---|---|---|---|---|
| Balboa | 9.5 | 18 | -10.1 | 17 | 19.8 | 17&18 | +0.557 |
| Cristobal | 1.19 | 13 | -0.82 | 9 | 1.83 | 13 | -0.061 |

*For consecutive tides.

NOTE: Elevations are referred to zero of respective rods, approximately mean sea level. Zero of Balboa is 0.174 feet higher than zero of Cristobal rod, as ascertained by precise levels.

9. Chagres River: The monthly mean discharge of the Chagres River at Alhajuela for January, 1934, was 1824 c.f.s., which is 4% below the 33-year January average of 1900 c.f.s. The maximum monthly discharge on record for January is 4,963 c.f.s. in 1910 and the minimum was 734 c.f.s. in 1913. The maximum momentary discharge for the month was 5,270 c.f.s. at elevation 95.03 feet on the 9th and the minimum was 1,164 c.f.s. at elevation 93.5[illegible] feet, on the 31st. The maximum momentary discharge on record for January is 47,500 c.f.s. at elevation 107.09 feet, on January 2, 1908 and the minimum is 560 c.f.s. at elevation 91.60 feet, on January 31, 1913. No major floods occurred during the month.

10. Gatun Lake: Gatun Lake varied in elevation during the month of January from a maximum of 87.09 feet, on the 5th, to a minimum of 86.49 feet on the 31st, averaged 86.90 feet and ended the month at elevation 86.54 feet.

The total yield of the Gatun Lake watershed for the month was 3,687 c.f.s which is 23% above the 31-year January average of 2,997 c.f.s. The maximum total yield on record for January is 9,295 c.f.s. in 1933; the minimum on record is 1,453 c.f.s. in 1931.

A total of 2.1 billion cubic feet or 790 c.f.s. was spilled over Gatun Spillway.

The total yield of the Lake's watershed was expended as follows:

| | Million cu. ft. | Cubic Feet per second | Feet depth Gatun Lake | Percent of total yield |
|---|---|---|---|---|
| Evaporated from lake surface | 2134 | 797 | .47 | 22 |
| Gatun Lake lockages..... | 3591 | 1341 | .79 | 36 |
| Hydro-electric power..... | 4329 | 1616 | .95 | 44 |
| Gatun Spillway waste..... | 2116 | 790 | .46 | 22 |
| Decrease in storage..... | -2419 | -903 | -.53 | -24 |
| Leakage and municipal..... | 124 | 46 | .03 | 0 |
| Total yield..... | 9875 | 3687 | 2.16 | 100 |

The net yield (total yield minus evaporation) amounted to 7,741 million cubic feet, which is equivalent to 1.70 feet on Gatun Lake.

Comparative data regarding water requirements for Gatun Lake lockages (Gatun and Pedro Miguel) and the hydro-electric plant follows:

| | January 1934 | December 1933 | January 1933 |
|---|---|---|---|
| Gatun Lake lockages, c.f.s. ..... | 1341 | 1332 | 1110 |
| Number of lockages per day ..... | 15.6 | 15.4 | 12.6 |
| Water used per lockage per day, c.f.s. | 86 | 86 | 88 |
| Hydro-electric plant, c.f.s. ..... | 1416 | 1597 | 1725 |

11. Miraflores Lake: Miraflores Lake varied between elevations 53.00 feet on the 30th and 54.33 feet on the 3d; averaged 53.78 feet, and ended the month at elevation 53.76 feet. 191 millions cubic feet, or 71 c.f.s. were wasted over Miraflores Spillway.

12. Flood Warnings: Six current meter gagings were made at Alhajuela and one at Chico. Vigia was discontinued as a flood warnings station at the end of the month. Indio, Chico and Salamanca were inspected and the necessary maintenance work at those stations was done.

13. Madden Lake Ridge Hydrology: Weir and water table observations were obtained as usual. Work on rehabilitation of weir plates, bench marks checks and repairs to weirs are 99% completed. One set of seepage patrol measurements was made on the Las Conchas-Faerie Glen and Madronal streams.

14. Construction: Peluca hydrographic tower will be completed about Feb. 7th and camp discontinued.

Candelaria: Material for camp, tower and cableway were transported to sites during month and construction of them is expected to start during February.

15. Miscellaneous: Nautical books and charts sold or issued for official use by the Cristobal Hydrographic Office amounted to $230.55. Correct time was maintained for rating ships' chronometers. Pilot charts and hydrographic and meteorological publications were distributed to ships calling at Canal ports, and weather and current reports were collected in cooperation with the U.S. Weather Bureau and the U. S. Navy.

Nine local Notices to Mariners (Nos. 252-260) were issued during the month.

16. Personnel: G. . Kirkpatrick, Chief of Surveys, returned from 31 days leave on January 30th. I. C. Hunter, Recorder, returned from 92 days leave, on January 18th.

D. - Surveys

17. Land Office: Corner and grade stakes were set on lots 13 and 14, block 35, Colon.

Made a survey of additional land to be leased to the Strangers Club, Colon.

18. Miscellaneous:

Supply Department: Junior Engineer and two silver men continued on detail to the Constructing Quartermaster on the Junior College Building in Balboa for the entire month.

Field work was completed on the mapping of all oil delivery lines from the Mt. Hope Oil Handling Plant, and the office work 75% completed.

Naval Radio Station, Summit: Work was started on a topographical survey of the 30 acre site to be developed as a Naval Radio Station at Summit. Field work was 25% complete at the end of the month.

Pacific Locks: Levels were taken on the East Emergency Dam at Pedro Miguel; and bench marks were set to be used in re-leveling the tracks and re-balancing the Dam.

City Mapping: Work was continued on the revision of the Panama-Ancon-Balboa control points.

Work was started on a revision of the Cristobal-Mt.Hope control points and map.

Located Velasquez River Spillway for plotting on map.

M
W & H. Sub-Section: Checked water stage register elevations at Gamboa. One gold man and one silver man continued on detail to the W. & H. Sub-section during the entire month.

P. R. R.: Soundings were taken around the piers of the Gamboa Bridge, at the request of the Road-Master, to determine what scour, if any, had taken place.

Triangulation Station Repairs: Stations Cassaya, Morales, Sohio, West, Chagres, Lake, Tiger Hill, Lindero and Tunnel were cleared and repaired during the month.

100-Foot Contour Boundary Monuments: Monuments 28, 29, 31, 32, 33, 50, 54-1/2, 55-1/4, 40, 41, 42, 37-1/4, 37-1/2, 35, 34 and 37 were recovered, cleaned and repaired during the month. All of the above monuments are on the Chagres River arm of Gatun Lake.

19. Maps and Office:

20 Miscellaneous

A layout was made on the 1:10,000 C.Z. lithograph map, showing a system of field sheets to be followed in future, 1:1000 scale mapping. Map No. 6102-86 sheets 1 and 2.

The map showing the Paitilla Point Military Reservation was corrected to show the new boundary.

Supply Department: A series of thirty-three tracings was started showing location of pipe-lines from the Mt. Hope Oil Tank Farm to Pier 910 and Piers 6, 7 & 8, Cristobal. 75% complete.

Some work was done on photographing and inking the Gov. map of the C. Z., and a tracing was started of the same.

~~20.~~ ~~Miscellaneous~~:

R. & H. Sub-Section:

The chart showing analysis of water flowing over weir dams in the vicinity of Madden Dam site was brought up to date.

Feet of Line: Transit and chain, 15,000; Wye level, 5,000.

21. Personnel: R. Z. Kirkpatrick, Chief of Surveys, returned from 31 days' leave on January 30th.

R. B. Ely, Jr. Engineer, returned from 31-1/2 days' leave on Jan. 24th.

F. R. Fitch, Assistant Engineer, was retired for age at close of business on January 31st.

R. Z. KIRKPATRICK,
Chief of Surveys.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

*tation,* Balboa Heights ; *Month* February , *193* 4

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 85 | 70 | 78 | .248 | 0 | 77.9 | Pt.cldy. |
| 87 | 71 | 77 | .138 | .02 | 76.8 | Pt.cldy. |
| 87 | 70 | 77 | .161 | 0 | 76.0 | Pt.cldy. |
| 87 | 67 | 76 | .289 | 0 | 75.6 | Pt.cldy. |
| 87 | 69 | 77 | .248 | 0 | 74.2 | Clear |
| 88 | 67 | 76 | .236 | 0 | 72.9 | Clear |
| 88 | 67 | 76 | .209 | 0 | 73.2 | Pt.cldy. |
| 86 | 68 | 76 | .134 | T | 72.2 | Pt.cldy. |
| 89 | 69 | 77 | .134 | 0 | 71.9 | Pt.cldy. |
| 88 | 69 | 77 | .240 | 0 | 71.6 | Pt.cldy. |
| 88 | 70 | 78 | .209 | 0 | 69.8 | Pt.cldy. |
| 89 | 73 | 79 | .275 | 0 | 68.4 | Pt.cldy. |
| 88 | 70 | 77 | .288 | 0 | 68.2 | Pt.cldy. |
| 88 | 70 | 78 | .283 | 0 | 68.3 | Clear |
| 88 | 70 | 78 | .248 | 0 | 67.0 | Pt.cldy. |
| 87 | 69 | 78 | .276 | 0 | 67.9 | Pt.cldy. |
| 87 | 69 | 77 | .276 | 0 | 68.9 | Clear |
| 88 | 69 | 77 | .244 | 0 | 68.4 | Pt.cldy. |
| 85 | 68 | 75 | .248 | .05 | 67.8 | Pt.cldy. |
| 88 | 67 | 76 | .157 | 0 | 66.8 | Pt.cldy. |
| 89 | 67 | 76 | .233 | 0 | 67.2 | Clear |
| 89 | 68 | 77 | .189 | 0 | 67.6 | Clear |
| 86 | 70 | 76 | .288 | 0 | 68.3 | Pt.cldy. |
| 90 | 72 | 76 | .165 | 0 | 68.9 | Pt.cldy. |
| 89 | 72 | 79 | .264 | 0 | 70.5 | Pt.cldy. |
| 90 | 70 | 78 | .232 | 0 | 70.8 | Clear |
| 91 | 70 | 78 | .256 | T | 70.8 | Clear |
| 88 | 71 | 78 | .221 | 0 | 70.0 | Clear |
| 2460 | 1942* | - | 6.369 | .07 | * - | |
| 87.9 | 69.4 | 77.1 | .227 | - | 70.7 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.906 ; highest 30.010 date 14th

Lowest 29.800 date 2nd

**TEMPERATURE**

Highest 91 date 27 ; lowest 67 date 6

Greatest daily range 22 date 21

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.4 | 1915 79.4 | 1924 78.5 | 1933 78.3 |
| 1907 76.7 | 1916 77.6 | 1925 77.1 | 1934 77.1 |
| 1908 79.9 | 1917 76.4 | 1926 80.0 | 1935 |
| 1909 78.4 | 1918 78.1 | 1927 77.9 | 1936 |
| 1910 77.5 | 1919 77.9 | 1928 80.0 | 1937 |
| 1911 77.9 | 1920 78.8 | 1929 78.8 | 1938 |
| 1912 79.3 | 1921 78.1 | 1930 78.3 | 1939 |
| 1913 78.5 | 1922 79.7 | 1931 79.8 | 1940 |
| 1914 80.0 | 1923 77.9 | 1932 78.5 | 1941 |

Mean of this month for 29 years 78.5

Absolute maximum for this month for 29 years 96

Absolute minimum for this month for 29 years 64

Average daily excess, (+) or deficiency (—) of this month as compared with mean of -29 years -1.4

**EVAPORATION**

Total this month 6.369 Average daily .227 inches

**PRECIPITATION**

Greatest precipitation in 24 hours .05 date 19th

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 2.52 | 1899 1.17 | 1913 .22 | 1927 1.99 |
| 1886 .12 | 1900 0 | 1914 .02 | 1928 .32 |
| 1887 .16 | 1901 1.11 | 1915 2.96 | 1929 .02 |
| 1888 .12 | 1902 — | 1916 1.48 | 1930 .85 |
| 1889 — | 1903 — | 1917 .19 | 1931 T |
| 1890 — | 1904 — | 1918 T | 1932 .46 |
| 1891 — | 1905 — | 1919 T | 1933 .30 |
| 1892 — | 1906 .33 | 1920 T | 1934 .07 |
| 1893 — | 1907 .04 | 1921 2.37 | 1935 |
| 1894 — | 1908 .24 | 1922 2.05 | 1936 |
| 1895 — | 1909 2.90 | 1923 T | 1937 |
| 1896 — | 1910 .43 | 1924 .05 | 1938 |
| 1897 — | 1911 2.75 | 1925 .07 | 1939 |
| 1898 — | 1912 .08 | 1926 .07 | 1940 |

Average of this month for 36 years .71

Total from January 1, 1934 to date 4.11

Average from January 1, to date 1.61

Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period plus 2.50

**WIND**

Prevailing direction NW Total movement 5850 miles

Average hourly velocity 8.7 miles per hour

Maximum velocity (for five minutes) 23 miles per hour

from N on 28th

**(WEATHER No. of days)**

Clear 9 Pt. Cloudy 19 Cloudy 0

Days on which .01 inch, or more, of rain occurred 2

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms None

Earthquakes 2, 8, 9, 12

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month March, 1934

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 90 | 71 | 80 | .315 | 0 | 70.4 | Clear |
| 88 | 71 | 76 | .268 | .20 | 71.5 | Pt cldy |
| 88 | 70 | 78 | .141 | 0 | 69.6 | Pt cldy |
| 88 | 70 | 77 | .138 | 0 | 70.8 | Clear |
| 91 | 68 | 78 | .240 | 0 | 70.5 | Clear |
| 89 | 70 | 78 | .272 | 0 | 70.2 | Clear |
| 89 | 71 | 78 | .347 | 0 | 70.2 | Clear |
| 89 | 71 | 78 | .354 | 0 | 70.7 | Clear |
| 90 | 70 | 78 | .295 | 0 | 71.2 | Clear |
| 89 | 70 | 78 | .351 | 0 | 71.8 | Pt cldy |
| 88 | 69 | 77 | .256 | 0 | 73.5 | Pt cldy |
| 91 | 72 | 80 | .221 | T | 72.6 | Pt cldy |
| 90 | 71 | 79 | .264 | 0 | 70.4 | Clear |
| 89 | 69 | 78 | .318 | 0 | 70.8 | Pt cldy |
| 91 | 70 | 80 | .272 | 0 | 70.8 | Clear |
| 91 | 73 | 80 | .343 | 0 | 71.2 | Pt cldy |
| 91 | 73 | 81 | .263 | 0 | 71.8 | Pt cldy |
| 89 | 72 | 79 | .394 | 0 | 71.5 | Pt cldy |
| 90 | 71 | 79 | .382 | 0 | 71.2 | Clear |
| 91 | 71 | 79 | .350 | 0 | 72.8 | Clear |
| 91 | 71 | 80 | .339 | 0 | 73.9 | Clear |
| 92 | 71 | 80 | .370 | 0 | 71.7 | Clear |
| 91 | 70 | 80 | .374 | 0 | 71.8 | Pt cldy |
| 90 | 70 | 79 | .299 | 0 | 71.8 | Clear |
| 92 | 70 | 78 | .315 | 0 | 72.1 | Clear |
| 89 | 71 | 79 | .279 | 0 | 71.8 | Pt cldy |
| 91 | 70 | 80 | .272 | 0 | 71.3 | Pt cldy |
| 92 | 71 | 80 | .291 | 0 | 70.5 | Clear |
| 90 | 70 | 79 | .350 | 0 | 70.2 | Clear |
| 89 | 71 | 79 | .433 | T | 71.4 | Pt cldy |
| 90 | 70 | 79 | .256 | 0 | 72.3 | Clear |
| 2789 | 2186 | * - | 9.342 | .20 | * - | |
| 90.0 | 70.6 | 78.8 | .301 | - | 71.4 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

*hbr

### ATMOSPHERIC PRESSURE (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.858; highest 28.970 date 8th
Lowest 29.740 date 24th

### TEMPERATURE

Highest 92 date 22; lowest 68 date 5
Greatest daily range 23 date 5

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 80.2 | 1915 | 81.4 | 1924 | 79.9 | 1933 | 79.3 |
| 1907 | 79.3 | 1916 | 79.0 | 1925 | 78.1 | 1934 | 78.8 |
| 1908 | 80.5 | 1917 | 78.8 | 1926 | 80.6 | 1935 | |
| 1909 | 79.8 | 1918 | 78.0 | 1927 | 80.3 | 1936 | |
| 1910 | 77.5 | 1919 | 79.6 | 1928 | 80.4 | 1937 | |
| 1911 | 78.3 | 1920 | 80.0 | 1929 | 79.4 | 1938 | |
| 1912 | 81.1 | 1921 | 79.3 | 1930 | 80.5 | 1939 | |
| 1913 | 80.1 | 1922 | 79.7 | 1931 | 81.3 | 1940 | |
| 1914 | 80.8 | 1923 | 79.3 | 1932 | 79.7 | 1941 | 79.7 |

Mean of this month for 29 years
Absolute maximum for this month for 29 years 96
Absolute minimum for this month for 29 years 65
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 29 years -0.9

### EVAPORATION

Total this month 9.342 Average daily .301 inches

### PRECIPITATION

Greatest precipitation in 24 hours .20 date 2

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1887 | 5.71 | 1899 | 2.41 | 1913 | .43 | 1927 | .01 |
| 1888 | .16 | 1900 | 0 | 1914 | T | 1928 | 4.07 |
| 1889 | .35 | 1901 | 0 | 1915 | T | 1929 | 2.19 |
| 1890 | 0 | 1902 | | 1916 | .89 | 1930 | .01 |
| 1891 | | 1903 | | 1917 | .02 | 1931 | .70 |
| 1892 | | 1904 | | 1918 | 1.25 | 1932 | .13 |
| 1893 | | 1905 | | 1919 | T | 1933 | .46 |
| 1894 | | 1906 | .05 | 1920 | .09 | 1934 | .20 |
| 1895 | | 1907 | T | 1921 | 2.98 | 1935 | |
| 1896 | | 1908 | .03 | 1922 | 1.02 | 1936 | |
| 1897 | | 1909 | .18 | 1923 | T | 1937 | |
| 1898 | | 1910 | 1.83 | 1924 | .07 | 1938 | |
| | | 1911 | .26 | 1925 | .07 | 1939 | |
| | | 1912 | .01 | 1926 | 0 | 1940 | |

Average of this month for 36 years .71
Total from January 1, 1934 to date 4.31
Average from January 1, to date 2.32
Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period + 1.99

### WIND

Prevailing direction NW Total movement 7,277 miles
Average hourly velocity 9.8 miles per hour
Maximum velocity (for five minutes) 24 miles per hour
from N on 19

### (WEATHER No. of days)

Clear 18 Pt. Cloudy 13 Cloudy 0
Days on which .01 inch, or more, of rain occurred 1

### MISCELLANEOUS PHENOMENA (DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms None
Earthquakes 7th, 22nd and 28th

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month April, 1934

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 90 | 71 | 79 | .264 | 0 | 72.4 | Pt Cldy |
| 92 | 72 | 80 | .232 | 0 | 72.2 | Clear |
| 93 | 72 | 81 | .279 | 0 | 72.4 | PtCldy |
| 90 | 72 | 80 | .335 | 0 | 71.7 | PtCldy |
| 91 | 71 | 80 | .331 | 0 | 72.5 | PtCldy |
| 91 | 73 | 83 | .244 | 0 | 72.7 | PtCldy |
| 90 | 75 | 82 | .279 | 0 | 73.3 | Cloudy |
| 91 | 76 | 82 | .213 | 0 | 72.8 | PtCldy |
| 91 | 75 | 81 | .323 | T | 73.2 | PtCldy |
| 90 | 75 | 82 | .245 | 0 | 73.8 | PtCldy |
| 89 | 75 | 80 | .173 | 0 | 74.8 | Cloudy |
| 85 | 75 | 78 | .118 | 0 | 73.9 | Cloudy |
| 88 | 73 | 79 | .118 | 0 | 73.4 | PtCldy |
| 91 | 73 | 81 | .153 | T | 74.2 | PtCldy |
| 92 | 75 | 82 | .236 | 0 | 74.3 | PtCldy |
| 92 | 75 | 80 | .157 | 0 | 76.4 | PtCldy |
| 88 | 75 | 79 | .197 | 0 | 78.1 | PtCldy |
| 89 | 74 | 79 | .118 | 0 | 79.6 | PtCldy |
| 90 | 74 | 81 | .086 | 0 | 79.8 | PtCldy |
| 90 | 74 | 80 | .189 | 0 | 80.2 | PtCldy |
| 92 | 75 | 82 | .197 | 0 | 80.8 | PtCldy |
| 91 | 76 | 82 | .229 | .03 | 80.8 | Cloudy |
| 89 | 76 | 81 | .204 | 0 | 80.9 | Cloudy |
| 88 | 76 | 78 | .158 | .93 | 79.3 | Cloudy |
| 88 | 73 | 78 | .157 | 3.07 | 78.5 | Cloudy |
| 91 | 73 | 81 | .090 | .02 | 79.3 | PtCldy |
| 91 | 74 | 80 | .154 | .73 | 79.1 | PtCldy |
| 92 | 74 | 82 | .169 | 0 | 79.2 | PtCldy |
| 90 | 76 | 81 | .276 | .13 | 78.5 | PtCldy |
| 88 | 74 | 80 | .157 | .18 | 78.8 | Cloudy |
| 93 | 2222 | * ---- | 6.086 | 5.09 | * ----- | |
| 90.1 | 74.1 | 80.5 | .203 | ---- | 76.2 | |

### ATMOSPHERIC PRESSURE (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.838; highest 29.950 date 1st

Lowest 29.700 date 4th

### TEMPERATURE

Highest 93 date 3; lowest 71 date 1

Greatest daily range 21 date 3

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 80.8 | 1915 | 79.4 | 1924 | 80.5 | 1933 | 80.5 |
| 1907 | 79.6 | 1916 | 79.7 | 1925 | 79.9 | 1934 | 80.5 |
| 1908 | 80.8 | 1917 | 78.9 | 1926 | 81.8 | 1935 | |
| 1909 | 79.8 | 1918 | 79.0 | 1927 | 79.8 | 1936 | |
| 1910 | 78.5 | 1919 | 80.1 | 1928 | 80.7 | 1937 | |
| 1911 | 79.5 | 1920 | 81.1 | 1929 | 80.1 | 1938 | |
| 1912 | 80.6 | 1921 | 79.8 | 1930 | 79.9 | 1939 | |
| 1913 | 80.3 | 1922 | 81.6 | 1931 | 82.1 | 1940 | |
| 1914 | 81.1 | 1923 | 79.8 | 1932 | 81.0 | 1941 | |

Mean of this month for 29 years 80.2

Absolute maximum for this month for 29 years 97

Absolute minimum for this month for 29 years 64

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 29 years +0.3

### EVAPORATION

Total this month 6.086 Average daily .203 inches

### PRECIPITATION

Greatest precipitation in 24 hours 3.11 date 24 & 25

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 5.55 | 1899 | 0 | 1913 | .03 | 1927 | 4.67 |
| 1880 | 1.61 | 1900 | 2.25 | 1914 | 4.80 | 1928 | 3.38 |
| 1881 | 3.23 | 1901 | .25 | 1915 | 5.37 | 1929 | .43 |
| 1882 | .98 | 1902 | --- | 1916 | 2.84 | 1930 | 6.78 |
| 1889 | ---- | 1903 | --- | 1917 | 2.24 | 1931 | 1.45 |
| 1890 | ---- | 1904 | --- | 1918 | 4.52 | 1932 | 7.56 |
| 1891 | ---- | 1905 | --- | 1919 | 6.43 | 1933 | 3.46 |
| 1892 | ---- | 1906 | 7.77 | 1920 | 3.02 | 1934 | 5.09 |
| 1893 | ---- | 1907 | T | 1921 | 1.19 | 1935 | |
| 1894 | ---- | 1908 | 1.37 | 1922 | .16 | 1936 | |
| 1895 | ---- | 1909 | 2.92 | 1923 | .83 | 1937 | |
| 1896 | ---- | 1910 | 3.71 | 1924 | 3.72 | 1938 | |
| 1897 | ---- | 1911 | 6.34 | 1925 | 2.63 | 1939 | |
| 1898 | ---- | 1912 | 2.68 | 1926 | .08 | 1940 | |

Average of this month for 36 years 3.04

Total from January 1, 1934 to date 9.40

Average from January 1, to date 5.36

Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period +4.04

### WIND

Prevailing direction N W Total movement 5547 miles

Average hourly velocity 7.7 miles per hour

Maximum velocity (for five minutes) 24 miles per hour from N W on 25

### (WEATHER No. of days)

Clear 1 Pt. Cloudy 21 Cloudy 8

Days on which .01 inch, or more, of rain occurred

### MISCELLANEOUS PHENOMENA (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 24, 25, and 30

Earthquakes 18 and 21

E.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

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# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

*Station,* Balboa Heights, C. Z. ; *Month* May, 1934, *193*

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 75 | 81 | .276 | 0 | 79.2 | Pt.cldy |
| 2 | 88 | 75 | 78 | .178 | 0 | 79.5 | Pt.cldy |
| 3 | 87 | 74 | 78 | .114 | .11 | 79.4 | Cloudy |
| 4 | 91 | 75 | 80 | .080 | .43 | 80.3 | Pt.cldy |
| 5 | 90 | 77 | 81 | .123 | .32 | 80.2 | Pt.cldy |
| 6 | 91 | 75 | 82 | .170 | 0 | 80.3 | Pt.cldy |
| 7 | 91 | 76 | 80 | .169 | .15 | 80.6 | Cloudy |
| 8 | 89 | 75 | 82 | .158 | .02 | 80.4 | Pt.cldy |
| 9 | 87 | 77 | 80 | .118 | 0 | 81.1 | Cloudy |
| 10 | 88 | 76 | 80 | .078 | .10 | 81.3 | Cloudy |
| 11 | 85 | 75 | 76 | .119 | .53 | 81.0 | Cloudy |
| 12 | 84 | 72 | 77 | .118 | 0 | 80.8 | Pt.cldy |
| 13 | 88 | 72 | 79 | .079 | 0 | 81.6 | Pt.cldy |
| 14 | 87 | 74 | 78 | .079 | .10 | 82.6 | Cloudy |
| 15 | 85 | 73 | 79 | .116 | .73 | 82.2 | Pt.cldy |
| 16 | 87 | 75 | 78 | .079 | .03 | 82.5 | Pt.cldy |
| 17 | 87 | 72 | 79 | .078 | 0 | 83.6 | Clear |
| 18 | 88 | 73 | 79 | .118 | 0 | 83.9 | Pt.cldy |
| 19 | 84 | 73 | 79 | .158 | 0 | 85.0 | Pt.cldy |
| 20 | 82 | 74 | 78 | .118 | .12 | 83.3 | Cloudy |
| 21 | 85 | 73 | 78 | .079 | .31 | 83.1 | Cloudy |
| 22 | 85 | 74 | 78 | .118 | 0 | 82.8 | Cloudy |
| 23 | 87 | 73 | 79 | .118 | .11 | 83.9 | Pt.cldy |
| 24 | 86 | 74 | 78 | .118 | .04 | 83.9 | Cloudy |
| 25 | 86 | 74 | 78 | .079 | .03 | 83.5 | Cloudy |
| 26 | 84 | 74 | 78 | .079 | 0 | 82.9 | Cloudy |
| 27 | 88 | 75 | 79 | .047 | .20 | 83.7 | Pt.cldy |
| 28 | 85 | 75 | 79 | .110 | T | 83.5 | Cloudy |
| 29 | 84 | 75 | 76 | .079 | 1.11 | 82.8 | Cloudy |
| 30 | 83 | 71 | 77 | .079 | .18 | 82.3 | Cloudy |
| 31 | 83 | 76 | 79 | .039 | .34 | 82.3 | Cloudy |
| | 2683 | 2302 | * - | 3.473 | 4.96 | * - | |
| | 86.5 | 74.3 | 78.9 | .112 | - | 82.0 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.833 ; highest 29.960 date 15th

Lowest 29.710 date 6th

**TEMPERATURE**

Highest 91 date 6 & 7 ; lowest 71 date 30th

Greatest daily range 16 date 8

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.9 | 1915 | 79.9 | 1924 | 79.0 | 1933 | 79.3 |
| 1907 | 80.1 | 1916 | 79.2 | 1925 | 80.4 | 1934 | 78.9 |
| 1908 | 78.5 | 1917 | 78.2 | 1926 | 80.9 | 1935 | |
| 1909 | 78.3 | 1918 | 78.8 | 1927 | 78.6 | 1936 | |
| 1910 | 77.7 | 1919 | 80.2 | 1928 | 79.6 | 1937 | |
| 1911 | 78.0 | 1920 | 80.3 | 1929 | 79.7 | 1938 | |
| 1912 | 80.3 | 1921 | 78.8 | 1930 | 79.5 | 1939 | |
| 1913 | 78.4 | 1922 | 79.3 | 1931 | 79.7 | 1940 | |
| 1914 | 80.1 | 1923 | 79.3 | 1932 | 78.9 | 1941 | |

Mean of this month for 29 years 79.3

Absolute maximum for this month for 29 years 96

Absolute minimum for this month for 29 years 69

Average daily ~~excess or~~ deficiency (—) of this month as compared with mean of 29 years -0.4

**EVAPORATION**

Total this month 3.473 Average daily .112 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.17 date 29 & 30

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1880 | 79 10.28 | 1899 | 9.58 | 1913 | 8.27 | 1927 | 9.06 |
| 1881 | 4.45 | 1900 | 11.22 | 1914 | 6.98 | 1928 | 4.20 |
| 1882 | 10.35 | 1901 | 11.08 | 1915 | 6.42 | 1929 | 4.04 |
| 1883 | 5.24 | 1902 | | 1916 | 12.59 | 1930 | 9.70 |
| 1889 | | 1903 | | 1917 | 5.75 | 1931 | 13.15 |
| 1890 | | 1904 | | 1918 | 6.75 | 1932 | 9.39 |
| 1891 | | 1905 | | 1919 | 5.21 | 1933 | 7.96 |
| 1892 | | 1906 | 10.68 | 1920 | 3.31 | 1934 | 4.96 |
| 1893 | | 1907 | 4.44 | 1921 | 8.60 | 1935 | |
| 1894 | | 1908 | 7.64 | 1922 | 9.88 | 1936 | |
| 1895 | | 1909 | 9.10 | 1923 | 5.84 | 1937 | |
| 1896 | | 1910 | 9.89 | 1924 | 5.51 | 1938 | |
| 1897 | | 1911 | 11.04 | 1925 | 6.73 | 1939 | |
| 1898 | | 1912 | 10.71 | 1926 | 4.16 | 1940 | |

Average of this month for 36 years 7.89

Total from January 1, 1934 to date 14.36

Average from January 1, to date 13.25

Excess (+) ~~or deficiency~~ from January 1, 1934 to date as compared with average of corresponding period + 1.11

**WIND**

Prevailing direction NW Total movement 3777 miles

Average hourly velocity 5.1 miles per hour

Maximum velocity (for five minutes) 19 miles per hour from N on 11th

**(WEATHER No. of days)**

Clear 1 Pt. Cloudy 14 Cloudy 16

Days on which .01 inch, or more, of rain occurred

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 2,3,4,25,29

Earthquakes 4th

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

6-6

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month June, 1934

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 83 | 76 | 80 | .040 | .03 | 82.7 | cldy |
| 82 | 75 | 78 | .118 | .98 | 81.1 | cldy |
| 84 | 73 | 79 | .059 | .05 | 81.8 | ptcldy |
| 83 | 74 | 77 | .059 | .02 | 81.8 | cldy |
| 86 | 74 | 76 | .079 | 2.51 | 81.2 | cldy |
| 82 | 72 | 77 | .059 | .49 | 81.0 | cldy |
| 86 | 74 | 78 | .059 | 1.65 | 80.7 | ptcldy |
| 86 | 73 | 79 | .078 | 0 | 80.5 | ptcldy |
| 84 | 74 | 78 | .079 | T | 83.2 | ptcldy |
| 89 | 74 | 80 | .079 | 0 | 83.2 | ptcldy |
| 86 | 75 | 78 | .102 | .01 | 83.3 | ptcldy |
| 83 | 74 | 79 | .118 | 1.35 | 83.2 | ptcldy |
| 85 | 75 | 80 | .083 | .56 | 83.1 | ptcldy |
| 86 | 74 | 80 | .091 | 0 | 84.3 | ptcldy |
| 88 | 75 | 80 | .079 | T | 84.2 | cldy |
| 85 | 75 | 78 | .082 | .35 | 84.1 | cldy |
| 84 | 74 | 78 | .083 | 1.27 | 84.1 | cldy |
| 85 | 74 | 78 | .055 | .01 | 84.0 | cldy |
| 84 | 72 | 77 | .075 | T | 83.5 | cldy |
| 88 | 73 | 78 | .086 | .51 | 83.2 | cldy |
| 89 | 74 | 80 | .063 | .33 | 83.3 | cldy |
| 89 | 75 | 81 | .075 | .13 | 82.8 | cldy |
| 90 | 76 | 80 | .091 | 0 | 83.7 | cldy |
| 86 | 76 | 79 | .082 | .02 | 83.0 | ptcldy |
| 88 | 74 | 80 | .103 | 0 | 83.1 | ptcldy |
| 89 | 75 | 80 | .090 | 0 | 83.0 | cldy |
| 86 | 75 | 78 | .119 | .23 | 82.3 | cldy |
| 84 | 75 | 78 | .118 | .22 | 82.5 | cldy |
| 92 | 74 | 81 | .048 | 0 | 82.3 | ptcldy |
| 90 | 75 | 82 | .122 | 0 | 83.1 | ptcldy |
| 2582 | 2229 | *- | 2.474 | 10.85 | *- | |
| 86.1 | 74.3 | 78.9 | .082 | - | 82.8 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.838 ; highest 29.950 date 18

Lowest 29.730 date 29

**TEMPERATURE**

Highest 92 date 29 ; lowest 72 date 6

Greatest daily range 18 date 29

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.7 | 1915 | 79.6 | 1924 | 77.4 | 1933 | 78.4 |
| 1907 | 78.2 | 1916 | 77.9 | 1925 | 78.8 | 1934 | 78.9 |
| 1908 | 78.5 | 1917 | 77.6 | 1926 | 79.5 | 1935 | |
| 1909 | 77.4 | 1918 | 78.5 | 1927 | 78.3 | 1936 | |
| 1910 | 77.8 | 1919 | 79.3 | 1928 | 78.4 | 1937 | |
| 1911 | 78.8 | 1920 | 79.2 | 1929 | 78.5 | 1938 | |
| 1912 | 79.1 | 1921 | 78.5 | 1930 | 79.4 | 1939 | |
| 1913 | 79.0 | 1922 | 78.4 | 1931 | 79.5 | 1940 | |
| 1914 | 79.2 | 1923 | 78.7 | 1932 | 78.7 | 1941 | |

Mean of this month for 29 years 78.6

Absolute maximum for this month for 29 years 95

Absolute minimum for this month for 29 years 70

Average daily excess. (+) or deficiency (—) of this month as compared with mean of 29 years +0.3

**EVAPORATION**

Total this month 2.474 Average daily .082 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 3.07 date 5 & 6

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1887 | 7.46 | 1899 | 8.48 | 1913 | 8.15 | 1927 | 10.83 |
| 1888 | 0 5.00 | 1900 | 8.93 | 1914 | 7.28 | 1928 | 8.78 |
| 1889 | 1 13.78 | 1901 | 12.65 | 1915 | 2.85 | 1929 | 9.34 |
| 1890 | 2 5.15 | 1902 | | 1916 | 4.39 | 1930 | 2.50 |
| 1889 | | 1903 | | 1917 | 7.35 | 1931 | 7.81 |
| 1890 | | 1904 | | 1918 | 5.20 | 1932 | 9.23 |
| 1891 | | 1905 | 7.33 | 1919 | 8.93 | 1933 | 14.36 |
| 1892 | | 1906 | 8.57 | 1920 | 4.83 | 1934 | 10.85 |
| 1893 | | 1907 | 12.64 | 1921 | 7.86 | 1935 | |
| 1894 | | 1908 | 4.28 | 1922 | 7.92 | 1936 | |
| 1895 | | 1909 | 9.90 | 1923 | 2.59 | 1937 | |
| 1896 | | 1910 | 8.82 | 1924 | 8.41 | 1938 | |
| 1897 | | 1911 | 3.40 | 1925 | 18.34 | 1939 | |
| 1898 | | 1912 | 5.80 | 1926 | 12.33 | 1940 | |

Average of this month for 37 years 8.25

Total from January 1, 1934 to date 25.21

Average from January 1, to date 21.50

Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period +3.71

**WIND**

Prevailing direction NW Total movement 3474 miles

Average hourly velocity 4.8 miles per hour

Maximum velocity (for five minutes) 19 miles per hour

from SE on 5th

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 13 Cloudy 17

Days on which .01 inch, or more, of rain occurred 19

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar none

Fogs: Light 20th

Fogs: Dense none

Thunderstorms 5, 11, 12, 15, 16, 17, 20, 22, 24, 26, 27 (25, 29)

Earthquakes 4, 24, 30

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

MR 33839—Panama Canal—3-3-33—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

*Station,* Balboa Heights, C. Z. ; *Month* July, *1934*

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a. m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 91 | 75 | 82 | .236 | .01 | 82.9 | Pt.Cldy. |
| 85 | 77 | 80 | .134 | 0 | 82.2 | Cloudy |
| 89 | 74 | 79 | .086 | .13 | 82.2 | Cloudy |
| 85 | 74 | 78 | .091 | .05 | 81.4 | Pt.Cldy. |
| 82 | 73 | 78 | .110 | .08 | 81.2 | Cloudy |
| 86 | 74 | 80 | .063 | 0 | 80.8 | Pt.Cldy. |
| 84 | 73 | 79 | .083 | 0 | 83.5 | Pt.Cldy. |
| 87 | 73 | 79 | .079 | .07 | 83.2 | Cloudy |
| 89 | 75 | 81 | .082 | 0 | 84.5 | Pt.Cldy. |
| 89 | 74 | 81 | .107 | 0 | 84.8 | Cloudy |
| 85 | 73 | 78 | .141 | .23 | 83.5 | Cloudy |
| 85 | 73 | 79 | .083 | 0 | 83.8 | Pt.Cldy. |
| 87 | 73 | 79 | .102 | 0 | 83.8 | Cloudy |
| 88 | 73 | 80 | .118 | T | 83.6 | Cloudy |
| 84 | 74 | 79 | .079 | 0 | 83.0 | Pt.Cldy. |
| 83 | 75 | 78 | .145 | T | 81.9 | Cloudy |
| 91 | 75 | 82 | .107 | T | 82.2 | Pt.Cldy. |
| 91 | 74 | 82 | .252 | 0 | 82.5 | Pt.Cldy. |
| 90 | 76 | 81 | .169 | .27 | 82.9 | Pt.Cldy. |
| 90 | 76 | 81 | .118 | .16 | 82.8 | Pt.Cldy. |
| 84 | 72 | 78 | .189 | .02 | 82.2 | Cloudy |
| 90 | 74 | 79 | .063 | .47 | 81.8 | Cloudy |
| 85 | 72 | 78 | .087 | .08 | 81.8 | Cloudy |
| 83 | 72 | 78 | .090 | 0 | 81.5 | Cloudy |
| 88 | 73 | 80 | .107 | 0 | 82.7 | Pt.Cldy. |
| 86 | 75 | 79 | .098 | .19 | 82.4 | Cloudy |
| 89 | 75 | 79 | .138 | .98 | 82.2 | Pt.Cldy. |
| 91 | 76 | 82 | .094 | T | 82.6 | Pt.Cldy. |
| 88 | 76 | 80 | .107 | .15 | 82.5 | Pt.Cldy. |
| 90 | 76 | 80 | .137 | T | 82.6 | Cloudy |
| 89 | 74 | 78 | .075 | 2.50 | 82.3 | Pt.Cldy. |
| 704 | 2301 | * ---- | 3.570 | 5.39 | * ---- | |
| 7.2 | 74.2 | 79.5 | .115 | ---- | 82.6 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)
(Bi-hourly)
Mean 29.834 ; highest 29.920 date 5
Lowest 29.700 date 18

**TEMPERATURE**

Highest 91 date 28 ; lowest 72 date 23
Greatest daily range 17 date 18
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.0 | 1915 | 78.4 | 1924 | 78.2 | 1933 | 78.5 |
| 1907 | 78.6 | 1916 | 77.4 | 1925 | 78.3 | 1934 | 79.5 |
| 1908 | 78.3 | 1917 | 77.8 | 1926 | 78.9 | 1935 | |
| 1909 | 77.5 | 1918 | 79.4 | 1927 | 78.7 | 1936 | |
| 1910 | 76.6 | 1919 | 79.1 | 1928 | 79.9 | 1937 | |
| 1911 | 79.9 | 1920 | 78.9 | 1929 | 79.0 | 1938 | |
| 1912 | 78.9 | 1921 | 78.9 | 1930 | 80.0 | 1939 | |
| 1913 | 79.1 | 1922 | 79.8 | 1931 | 78.4 | 1940 | |
| 1914 | 80.7 | 1923 | 79.3 | 1932 | 78.8 | 1941 | |

Mean of this month for 29 years 78.8
Absolute maximum for this month for 29 years 95
Absolute minimum for this month for 29 years 67
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 29 years +0.7

**EVAPORATION**

Total this month 3.570 Average daily .115 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.50 date 31st
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 7.91 | 1899 | 8.21 | 1913 | 4.85 | 1927 | 8.22 |
| 1880 | 9.88 | 1900 | 15.82 | 1914 | 4.32 | 1928 | 7.91 |
| 1881 | 7.20 | 1901 | 14.11 | 1915 | 6.93 | 1929 | 5.22 |
| 1882 | 5.35 | 1902 | ---- | 1916 | 10.13 | 1930 | 4.04 |
| 1889 | | 1903 | ---- | 1917 | 10.17 | 1931 | 10.48 |
| 1890 | | 1904 | ---- | 1918 | 5.13 | 1932 | 6.29 |
| 1891 | | 1905 | 4.31 | 1919 | 4.75 | 1933 | 6.01 |
| 1892 | | 1906 | 9.01 | 1920 | 6.18 | 1934 | 5.39 |
| 1893 | | 1907 | 4.28 | 1921 | 8.07 | 1935 | |
| 1894 | | 1908 | 6.83 | 1922 | 5.08 | 1936 | |
| 1895 | | 1909 | 9.01 | 1923 | 3.15 | 1937 | |
| 1896 | | 1910 | 9.26 | 1924 | 5.97 | 1938 | |
| 1897 | | 1911 | 5.78 | 1925 | 3.83 | 1939 | |
| 1898 | 3.35 | 1912 | 10.25 | 1926 | 9.93 | 1940 | |

Average of this month for 38 years 7.23
Total from January 1, 1934 to date 30.60
Average from January 1, to date 28.73
Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period +1.87

**WIND**

Prevailing direction N W Total movement 4238 miles
Average hourly velocity 5.7 miles per hour
Maximum velocity (for five minutes) 20 miles per hour
from N W on 31st

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 16 Cloudy 15
Days on which .01 inch, or more, of rain occurred 15

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms 3, 20, 22, 26, 27, 30, & 31
Earthquakes Total No. — 80

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

MR 33839—Panama Canal—3-3-33—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

**Station,** Balboa Heights; **Month** August, **1934**

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 72 | 78 | .083 | .04 | 82.0 | Cloudy |
| 2 | 85 | 73 | 77 | .083 | .27 | 82.0 | Cloudy |
| 3 | 86 | 74 | 80 | .082 | 0 | 82.4 | PtCldy |
| 4 | 89 | 75 | 79 | .071 | .13 | 82.3 | PtCldy |
| 5 | 87 | 74 | 79 | .102 | .01 | 83.1 | PtCldy |
| 6 | 89 | 75 | 81 | .063 | .01 | 83.7 | PtCldy |
| 7 | 88 | 75 | 81 | .130 | .01 | 83.6 | PtCldy |
| 8 | 89 | 75 | 81 | .118 | .04 | 82.7 | PtCldy |
| 9 | 87 | 75 | 80 | .122 | .12 | 82.0 | PtCldy |
| 10 | 91 | 75 | 82 | .126 | 0 | 83.0 | PtCldy |
| 11 | 89 | 75 | 81 | .138 | .01 | 82.8 | PtCldy |
| 12 | 88 | 76 | 80 | .162 | .05 | 81.8 | Cloudy |
| 13 | 88 | 76 | 80 | .082 | .05 | 81.2 | Cloudy |
| 14 | 80 | 76 | 77 | .111 | T | 81.5 | Cloudy |
| 15 | 84 | 72 | 78 | .047 | 0 | 81.4 | Cloudy |
| 16 | 86 | 74 | 78 | .079 | 0 | 81.8 | Cloudy |
| 17 | 87 | 75 | 79 | .106 | T | 82.8 | Cloudy |
| 18 | 91 | 75 | 82 | .067 | 0 | 83.1 | PtCldy |
| 19 | 90 | 75 | 82 | .118 | 0 | 83.4 | PtCldy |
| 20 | 87 | 75 | 81 | .205 | 0 | 83.2 | PtCldy |
| 21 | 89 | 75 | 81 | .161 | 0 | 83.9 | PtCldy |
| 22 | 89 | 75 | 80 | .079 | .01 | 83.4 | Cloudy |
| 23 | 86 | 75 | 79 | .146 | .02 | 81.6 | Cloudy |
| 24 | 87 | 74 | 78 | .096 | 2.66 | 81.1 | Cloudy |
| 25 | 83 | 73 | 75 | .081 | .79 | 80.8 | Cloudy |
| 26 | 82 | 72 | 77 | .047 | .23 | 80.2 | Cloudy |
| 27 | 86 | 72 | 79 | .035 | 0 | 81.0 | PtCldy |
| 28 | 89 | 74 | 81 | .079 | 0 | 83.8 | PtCldy |
| 29 | 82 | 76 | 78 | .162 | .01 | 83.1 | Cloudy |
| 30 | 86 | 74 | 79 | .059 | 0 | 83.7 | PtCldy |
| 31 | 88 | 74 | 80 | .086 | .06 | 83.7 | Cloudy |
| Sum | 2692 | 2306 | * --- | 3.126 | 4.52 | * ---- | |
| Mean | 86.8 | 74.4 | 79.4 | .101 | --- | 82.4 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.846; highest 29.950 date 3

Lowest 29.740 date 10

**TEMPERATURE**

Highest 91 date 18; lowest 72 date 26

Greatest daily range 16 date 18

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.1 | 1915 | 79.0 | 1924 | 77.7 | 1933 | 78.8 |
| 1907 | 78.6 | 1916 | 77.1 | 1925 | 79.1 | 1934 | 79.4 |
| 1908 | 78.6 | 1917 | 77.6 | 1926 | 79.2 | 1935 | |
| 1909 | 77.8 | 1918 | 79.1 | 1927 | 78.8 | 1936 | |
| 1910 | 77.4 | 1919 | 79.5 | 1928 | 78.2 | 1937 | |
| 1911 | 78.5 | 1920 | 78.7 | 1929 | 77.7 | 1938 | |
| 1912 | 78.8 | 1921 | 78.8 | 1930 | 79.3 | 1939 | |
| 1913 | 78.8 | 1922 | 79.1 | 1931 | 79.8 | 1940 | |
| 1914 | 79.4 | 1923 | 78.7 | 1932 | 78.4 | 1941 | |

Mean of this month for 29 years 78.6

Absolute maximum for this month for 29 years 94

Absolute minimum for this month for 29 years 68

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 29 years +0.8

**EVAPORATION**

Total this month 3.126 Average daily .101 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 3.19 date 24 & 25

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 7.24 | 1899 | 8.60 | 1913 | 8.20 | 1927 | 7.76 |
| 1880 | 11.46 | 1900 | 6.00 | 1914 | 6.09 | 1928 | 6.87 |
| 1881 | 4.49 | 1901 | 8.67 | 1915 | 15.24 | 1929 | 11.96 |
| 1882 | 4.05 | 1902 | ---- | 1916 | 10.53 | 1930 | 4.34 |
| 1889 | -- | 1903 | ---- | 1917 | 7.42 | 1931 | 4.28 |
| 1890 | -- | 1904 | ---- | 1918 | 3.84 | 1932 | 7.61 |
| 1891 | -- | 1905 | 5.31 | 1919 | 5.82 | 1933 | 6.55 |
| 1892 | -- | 1906 | 6.43 | 1920 | 12.22 | 1934 | 4.52 |
| 1893 | -- | 1907 | 7.46 | 1921 | 9.51 | 1935 | |
| 1894 | -- | 1908 | 11.48 | 1922 | 1.46 | 1936 | |
| 1895 | -- | 1909 | 6.84 | 1923 | 5.37 | 1937 | |
| 1896 | -- | 1910 | 12.00 | 1924 | 14.46 | 1938 | |
| 1897 | -- | 1911 | 7.21 | 1925 | 10.83 | 1939 | |
| 1898 | 6.89 | 1912 | 6.33 | 1926 | 10.45 | 1940 | |

Average of this month for 38 years 7.78

Total from January 1, 1934 to date 35.12

Average from January 1, to date 36.51

Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period — 1.39

**WIND**

Prevailing direction N W Total movement 4159 miles

Average hourly velocity 5.6 miles per hour

Maximum velocity (for five minutes) 22 miles per hour from N W on 10

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 16 Cloudy 15

Days on which .01 inch, or more, of rain occurred

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 1, 7, 9, 10, 11, 13, 17, 22, 24, 25, 29, 3

Earthquakes Total — 57

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month SEPTEMBER, 1934.

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 89 | 74 | 82 | .103 | 0 | 83.8 | Pt.Cldy. |
| 91 | 75 | 81 | .126 | 0 | 84.4 | Pt.Cldy. |
| 85 | 75 | 79 | .063 | 0 | 82.8 | Pt.Cldy. |
| 88 | 75 | 80 | .137 | 0 | 82.3 | Cldy. |
| 89 | 76 | 78 | .063 | 3.19 | 83.0 | Cldy. |
| 82 | 72 | 78 | .094 | .02 | 80.2 | Cldy. |
| 85 | 73 | 78 | .052 | .35 | 81.2 | Pt.Cldy. |
| 87 | 73 | 78 | .086 | .01 | 82.6 | Pt.Cldy. |
| 87 | 74 | 78 | .095 | 1.47 | 81.8 | Cldy. |
| 85 | 73 | 78 | .043 | .83 | 81.1 | Cldy. |
| 85 | 75 | 80 | .083 | .11 | 83.8 | Pt.Cldy. |
| 88 | 75 | 80 | .098 | 0 | 83.2 | Cldy. |
| 88 | 75 | 80 | .092 | .01 | 83.2 | Pt.Cldy. |
| 84 | 75 | 75 | .099 | 3.43 | 81.7 | Cldy. |
| 85 | 71 | 78 | .027 | 0 | 80.5 | Cldy. |
| 89 | 74 | 80 | .099 | .15 | 82.1 | Pt.Cldy. |
| 87 | 75 | 80 | .055 | 0 | 83.8 | Cldy. |
| 88 | 74 | 77 | .075 | 1.86 | 82.7 | Cldy. |
| 89 | 75 | 80 | .059 | .39 | 82.7 | Pt.Cldy. |
| 90 | 76 | 82 | .094 | T | 82.5 | Pt.Cldy. |
| 90 | 76 | 80 | .122 | .07 | 82.1 | Cldy. |
| 81 | 76 | 77 | .067 | .87 | 80.4 | Cldy. |
| 85 | 73 | 78 | .102 | .02 | 80.9 | Pt.Cldy. |
| 85 | 73 | 79 | .087 | .02 | 82.2 | Cldy. |
| 84 | 75 | 78 | .079 | 2.93 | 82.9 | Cldy. |
| 84 | 73 | 78 | .082 | .05 | 82.7 | Pt.Cldy. |
| 84 | 74 | 78 | .103 | .57 | 81.8 | Cldy. |
| 87 | 74 | 78 | .051 | T | 82.0 | Pt.Cldy. |
| 88 | 74 | 81 | .102 | 0 | 82.5 | Pt.Cldy. |
| 85 | 76 | 79 | .099 | .03 | 83.0 | Cldy. |
| 2594 | 2229 | * — | 2.557 | 16.38 | * ---- | |
| 86.5 | 74.3 | 79.0 | .085 | --- | 82.3 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)
Mean 29.818; highest 29.940 date 23
Lowest 29.690 date 20

**TEMPERATURE**

Highest 91 date 2; lowest 71 date 15
Greatest daily range 16 date 2
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.3 | 1915 | 79.1 | 1924 | 78.0 | 1933 | 78.4 |
| 1907 | 78.5 | 1916 | 77.6 | 1925 | 78.0 | 1934 | 79.0 |
| 1908 | 78.7 | 1917 | 77.6 | 1926 | 79.0 | 1935 | |
| 1909 | 78.2 | 1918 | 78.9 | 1927 | 77.7 | 1936 | |
| 1910 | 77.8 | 1919 | 78.2 | 1928 | 78.9 | 1937 | |
| 1911 | 79.0 | 1920 | 78.5 | 1929 | 77.9 | 1938 | |
| 1912 | 78.0 | 1921 | 78.3 | 1930 | 79.7 | 1939 | |
| 1913 | 78.5 | 1922 | 78.1 | 1931 | 78.7 | 1940 | |
| 1914 | 78.5 | 1923 | 78.8 | 1932 | 78.7 | 1941 | |

Mean of this month for 29 years 78.5
Absolute maximum for this month for 29 years 94
Absolute minimum for this month for 29 years 68
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 29 years +0.5

**EVAPORATION**

Total this month 2.557 Average daily .085 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 3.44 date 13 & 14
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1878 | 9.02 | 1899 | 6.15 | 1913 | 11.42 | 1927 | 6.53 |
| 1880 | 7.91 | 1900 | 7.76 | 1914 | 9.60 | 1928 | 10.44 |
| 1887 | 8.94 | 1901 | 15.08 | 1915 | 3.89 | 1929 | 9.26 |
| 1888 | 4.05 | 1902 | --- | 1916 | 8.02 | 1930 | 7.41 |
| 1889 | --- | 1903 | --- | 1917 | 11.53 | 1931 | 11.09 |
| 1890 | --- | 1904 | --- | 1918 | 7.03 | 1932 | 7.23 |
| 1891 | --- | 1905 | 7.46 | 1919 | 10.84 | 1933 | 5.18 |
| 1892 | --- | 1906 | 4.83 | 1920 | 9.14 | 1934 | 16.38 |
| 1893 | --- | 1907 | 11.14 | 1921 | 3.27 | 1935 | |
| 1894 | --- | 1908 | 5.93 | 1922 | 8.18 | 1936 | |
| 1895 | --- | 1909 | 3.86 | 1923 | 4.80 | 1937 | |
| 1896 | --- | 1910 | 4.84 | 1924 | 12.56 | 1938 | |
| 1897 | --- | 1911 | 6.03 | 1925 | 9.01 | 1939 | |
| 1898 | 7.94 | 1912 | 8.38 | 1926 | 8.41 | 1940 | |

Average of this month for 38 years 8.17
Total from January 1, 1934 to date 51.30
Average from January 1, to date 44.68
Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period +6.62

**WIND**

Prevailing direction NW Total movement 3641 miles
Average hourly velocity 5.1 miles per hour
Maximum velocity (for five minutes) 22 miles per hour
from NW on 3

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 14 Cloudy 16
Days on which .01 inch, or more, of rain occurred 20

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms 5,7,9,11,13,14,16,18,21,28&30.
Earthquakes Total - 21

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month October, 1934

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 76 | 80 | .059 | .28 | 82.8 | Cloudy |
| 2 | 81 | 75 | 77 | .110 | .23 | 82.6 | Cloudy |
| 3 | 85 | 75 | 78 | .050 | .10 | 82.9 | Cloudy |
| 4 | 81 | 74 | 77 | .114 | .25 | 82.8 | Cloudy |
| 5 | 80 | 72 | 75 | .059 | .22 | 81.8 | Cloudy |
| 6 | 84 | 72 | 78 | .063 | .05 | 82.1 | Pt Cldy |
| 7 | 84 | 74 | 79 | .063 | .37 | 81.8 | Cloudy |
| 8 | 84 | 74 | 78 | .118 | .14 | 82.7 | Pt Cldy |
| 9 | 77 | 72 | 74 | .079 | .41 | 81.2 | Cloudy |
| 10 | 85 | 72 | 78 | .031 | .02 | 82.1 | Pt Cldy |
| 11 | 88 | 73 | 78 | .099 | T | 83.1 | Pt Cldy |
| 12 | 84 | 73 | 76 | .074 | .72 | 82. 2 | Cloudy |
| 13 | 88 | 72 | 77 | .052 | .91 | 81.3 | Cloudy |
| 14 | 81 | 74 | 77 | .050 | .39 | 81.0 | Cloudy |
| 15 | 84 | 73 | 77 | .050 | T | 81.3 | Pt Cldy |
| 16 | 86 | 71 | 78 | .142 | 0 | 82.2 | Pt Cldy |
| 17 | 84 | 73 | 78 | .071 | .78 | 82.2 | Cloudy |
| 18 | 83 | 73 | 77 | .067 | .74 | 80.8 | Cloudy |
| 19 | 79 | 72 | 76 | .090 | .01 | 79.2 | Cloudy |
| 20 | 81 | 73 | 76 | .048 | .19 | 81.0 | Cloudy |
| 21 | 85 | 71 | 78 | .035 | 0 | 81.2 | Pt Cldy |
| 22 | 87 | 72 | 78 | .098 | .32 | 81.4 | Pt Cldy |
| 23 | 86 | 74 | 77 | .079 | .51 | 81.1 | Cloudy |
| 24 | 84 | 73 | 76 | .067 | .17 | 81.7 | Cloudy |
| 25 | 84 | 73 | 78 | .059 | .75 | 82.8 | Pt Cldy |
| 26 | 86 | 72 | 79 | .095 | . 0 | 83.8 | Pt Cldy |
| 27 | 88 | 74 | 77 | .126 | 1.62 | 83.3 | Cloudy |
| 28 | 86 | 72 | 79 | .060 | 0 | 81.7 | Cloudy |
| 29 | 84 | 75 | 77 | .154 | 1.26 | 80.4 | Cloudy |
| 30 | 83 | 72 | 76 | .086 | .03 | 80.7 | Cloudy |
| 31 | 83 | 73 | 77 | .047 | .97 | 80.8 | Cloudy |
| Total | 2605 | 2264 | * ---- | 2.395 | 11.44 | * ---- | |
| Mean | 84.0 | 73.0 | 77.2 | .077 | ---- | 81.8 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.856; highest 29.970 date 9

Lowest 29.720 date 12

**TEMPERATURE**

Highest 90 date 1; lowest 71 date 21

Greatest daily range 16 date 13

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.0 | 1915 | 77.8 | 1924 | 77.6 | 1933 | 78.8 |
| 1907 | 77.5 | 1916 | 76.8 | 1925 | 78.4 | 1934 | 77.2 |
| 1908 | 77.8 | 1917 | 77.1 | 1926 | 78.8 | 1935 | |
| 1909 | 77.5 | 1918 | 77.7 | 1927 | 78.1 | 1936 | |
| 1910 | 77.2 | 1919 | 78.1 | 1928 | 78.2 | 1937 | |
| 1911 | 77.9 | 1920 | 77.8 | 1929 | 77.8 | 1938 | |
| 1912 | 77.2 | 1921 | 77.5 | 1930 | 78.2 | 1939 | |
| 1913 | 78.3 | 1922 | 77.8 | 1931 | 78.8 | 1940 | |
| 1914 | 78.0 | 1923 | 77.7 | 1932 | 78.1 | 1941 | |

Mean of this month for 29 years 77.8

Absolute maximum for this month for 29 years 95

Absolute minimum for this month for 29 years 68

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 29 years -0.6

**EVAPORATION**

Total this month 2.395 Average daily .077 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.62 date 27

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 9.80 | 1899 | 11.99 | 1913 | 8.30 | 1927 | 8.36 |
| 1880 | 11.81 | 1900 | 20.27 | 1914 | 6.44 | 1928 | 10.70 |
| 1881 | 9.68 | 1901 | 13.77 | 1915 | 10.42 | 1929 | 7.89 |
| 1882 | 6.69 | 1902 | ---- | 1916 | 10.17 | 1930 | 8.24 |
| 1889 | ---- | 1903 | ---- | 1917 | 6.14 | 1931 | 9.26 |
| 1890 | ---- | 1904 | ---- | 1918 | 9.16 | 1932 | 11.60 |
| 1891 | ---- | 1905 | 8.49 | 1919 | 12.11 | 1933 | 5.88 |
| 1892 | ---- | 1906 | 4.35 | 1920 | 6.48 | 1934 | 11.44 |
| 1893 | ---- | 1907 | 9.26 | 1921 | 13.86 | 1935 | |
| 1894 | ---- | 1908 | 8.79 | 1922 | 9.05 | 1936 | |
| 1895 | ---- | 1909 | 9.77 | 1923 | 15.02 | 1937 | |
| 1896 | ---- | 1910 | 8.86 | 1924 | 10.38 | 1938 | |
| 1897 | ---- | 1911 | 10.90 | 1925 | 7.37 | 1939 | |
| 1898 | 13.48 | 1912 | 17.89 | 1926 | 9.93 | 1940 | |

Average of this month for 38 years 10.08

Total from January 1, 1934 to date 62.94

Average from January 1, to date 54.70

Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period +8.24

**WIND**

Prevailing direction N W Total movement 3415 miles

Average hourly velocity 4.6 miles per hour

Maximum velocity (for five minutes) 24 miles per hour

from N E on 13

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 10 Cloudy 21

Days on which .01 inch, or more, of rain occurred

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense 9, 12, & 31

Thunderstorms 1, 3, 8, 11, 17, 26, 27, 28, & 31

Earthquakes Total, 20

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

MR 33839—Panama Canal—3-3-33—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month November, 1934.

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 85 | 73 | 77 | .029 | .42 | 80.2 | cldy |
| 85 | 72 | 77 | .094 | .16 | 80.1 | cldy |
| 86 | 73 | 79 | .051 | 0 | 81.2 | ptcldy |
| 87 | 73 | 79 | .044 | .40 | 82.1 | ptcldy |
| 87 | 74 | 79 | .145 | .09 | 81.3 | cldy |
| 85 | 74 | 79 | .067 | .13 | 80.7 | cldy |
| 84 | 74 | 78 | .103 | .24 | 81.8 | cldy |
| 86 | 74 | 77 | .075 | .04 | 82.0 | cldy |
| 84 | 74 | 78 | .059 | 0 | 81.7 | cldy |
| 86 | 73 | 78 | .105 | .08 | 82.2 | cldy |
| 82 | 75 | 76 | .063 | .41 | 80.8 | cldy |
| 81 | 72 | 76 | .040 | .07 | 80.2 | cldy |
| 83 | 72 | 76 | .078 | .05 | 80.9 | cldy |
| 85 | 73 | 76 | .067 | 1.01 | 81.4 | cldy |
| 82 | 74 | 77 | .055 | .57 | 80.8 | cldy |
| 80 | 72 | 75 | .075 | 2.22 | 79.9 | cldy |
| 78 | 72 | 73 | .050 | 4.48 | 79.0 | cldy |
| 84 | 72 | 77 | .025 | .74 | 78.5 | cldy |
| 84 | 72 | 76 | .039 | .36 | 80.2 | cldy |
| 86 | 73 | 77 | .138 | .01 | 81.0 | ptcldy |
| 86 | 74 | 78 | .044 | .02 | 81.5 | cldy |
| 84 | 74 | 77 | .082 | T | 80.9 | cldy |
| 84 | 73 | 76 | .087 | .89 | 80.4 | cldy |
| 85 | 72 | 76 | .063 | .05 | 80.3 | cldy |
| 85 | 72 | 75 | .079 | .21 | 80.2 | cldy |
| 85 | 70 | 77 | .059 | 0 | 80.5 | ptcldy |
| 86 | 72 | 76 | .149 | .10 | 80.6 | cldy |
| 84 | 73 | 76 | .087 | .10 | 80.2 | cldy |
| 84 | 71 | 76 | .079 | .04 | 80.5 | ptcldy |
| 86 | 71 | 77 | .114 | T | 80.9 | ptcldy |
| 529 | 2183 | *— | 2.225 | 12.89 | *— | |
| 84.3 | 72.8 | 76.3 | .074 | — | 80.8 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.824; highest 29.920 date 1st

Lowest 29.725 date 26th

**TEMPERATURE**

Highest 87 date 4; lowest 70 date 26th

Greatest daily range 15 date 26

Bihourly Mean for this month is: 76.7 76.5

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 77.7 | 1915 | 76.9 | 1924 | 78.6 | 1933 | 76.9 |
| 1907 | 76.9 | 1916 | 76.1 | 1925 | 77.7 | 1934 | |
| 1908 | 75.7 | 1917 | 78.2 | 1926 | 78.3 | 1935 | |
| 1909 | 77.3 | 1918 | 77.4 | 1927 | 76.9 | 1936 | |
| 1910 | 77.6 | 1919 | 78.2 | 1928 | 78.3 | 1937 | |
| 1911 | 77.1 | 1920 | 78.5 | 1929 | 79.2 | 1938 | |
| 1912 | 77.4 | 1921 | 77.0 | 1930 | 76.4 | 1939 | |
| 1913 | 78.0 | 1922 | 78.6 | 1931 | 77.3 | 1940 | |
| 1914 | | 1923 | 29 | 1932 | | | 77.4 |

Mean of this month for 29 years 94

Absolute maximum for this month for 29 years 67

Absolute minimum for this month for ~~xxxxx~~ years

Average daily excess, (+) 29 deficiency (—) of this month as compared with mean of years -0.8

**EVAPORATION**

Total this month 2.225 Average daily .074 inches

**PRECIPITATION**

Greatest precipitation in 24 hours date

Total precipitation this month in: 10.63 5.82

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1885 | 19.21 | 1899 | 8.93 | 1913 | | 1927 | |
| 1886 | 5.46 | 1900 | 13.01 | 1914 | 10.36 | 1928 | 20.51 |
| 1887 | 9.72 | 1901 | 12.40 | 1915 | 7.08 | 1929 | 12.62 |
| 1888 | 10.91 | 1902 | | 1916 | 8.77 | 1930 | 5.12 |
| 1889 | | 1903 | | 1917 | 15.77 | 1931 | 12.60 |
| 1890 | | 1904 | 8.81 | 1918 | 9.61 | 1932 | 10.18 |
| 1891 | | 1905 | 15.57 | 1919 | 4.97 | 1933 | 13.28 |
| 1892 | | 1906 | 10.51 | 1920 | 19.22 | 1934 | 12.09 |
| 1893 | | 1907 | 9.12 | 1921 | 7.11 | 1935 | |
| 1894 | | 1908 | 15.14 | 1922 | 8.44 | 1936 | |
| 1895 | | 1909 | 4.29 | 1923 | 8.61 | 1937 | |
| 1896 | | 1910 | 7.57 | 1924 | 12.65 | 1938 | |
| 1897 | 11.15 | 1911 | 6.38 | 1925 | 5.52 | 1939 | |
| 1898 | | 1912 | | 1926 | 9.65 | 1940 | |

Average of this month for 54 years 10.39

Total from January 1, 19 75.85 to date

Average from January 1, to date 65.09

Excess (+) or deficiency (—) from January 1, 19 to date 54 compared with average of corresponding period plus 10.74

**WIND**

Prevailing direction NW Total movement 3335 miles

Average hourly velocity 4.6 miles per hour

Maximum velocity (for five minutes) 24 miles per hour

from S on 16th

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 6 Cloudy 24

Days on which .01 inch, or more, of rain occurred 25

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar none

Fogs: Light none

Fogs: Dense 19th

Thunderstorms 1, 2, 5, 16, 21

Earthquakes 2, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 19, 22, 23, 24, 25, 27, 29, 30

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

MR 33839—Panama Canal —3-3-33—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month December, 1934.

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 87 | 71 | 77 | .142 | T | 81.6 | pt cldy |
| 89 | 72 | 79 | .118 | 0 | 81.3 | " |
| 91 | 74 | 81 | .177 | .05 | 82.1 | " |
| 91 | 74 | 80 | .142 | .03 | 82.7 | " |
| 87 | 73 | 79 | .171 | 0 | 83.1 | clear |
| 87 | 74 | 80 | .138 | T | 83.0 | pt cldy |
| 90 | 76 | 81 | .083 | 0 | 82.8 | " |
| 85 | 75 | 79 | .118 | .07 | 81.9 | cldy |
| 87 | 75 | 79 | .094 | .27 | 82.3 | pt cldy |
| 86 | 74 | 78 | .112 | .02 | 82.3 | cldy |
| 90 | 75 | 80 | .079 | .52 | 82.7 | pt cldy |
| 84 | 74 | 77 | .079 | .13 | 82.1 | cldy |
| 82 | 74 | 76 | .079 | .17 | 80.9 | cldy |
| 79 | 73 | 75 | .078 | .15 | 80.1 | " |
| 85 | 73 | 79 | .075 | .01 | 80.0 | pt cldy |
| 89 | 74 | 80 | .103 | 0 | 81.0 | " |
| 88 | 73 | 79 | .078 | .04 | 80.8 | cldy |
| 86 | 73 | 78 | .150 | T | 80.7 | cldy |
| 85 | 72 | 78 | .094 | 0 | 80.6 | cldy |
| 88 | 72 | 78 | .090 | .08 | 80.2 | pt cldy |
| 85 | 72 | 77 | .110 | .55 | 80.2 | " |
| 89 | 72 | 80 | .083 | 0 | 80.6 | pt cldy |
| 90 | 72 | 80 | .118 | 0 | 80.8 | clear |
| 88 | 72 | 79 | .138 | .03 | 81.6 | pt cldy |
| 87 | 73 | 78 | .154 | T | 82.0 | " |
| 88 | 74 | 79 | .114 | 0 | 80.8 | " |
| 88 | 74 | 79 | .094 | T | 81.1 | " |
| 88 | 73 | 80 | .138 | 0 | 81.5 | " |
| 88 | 74 | 79 | .154 | .29 | 81.2 | " |
| 86 | 74 | 78 | .100 | 0 | 81.3 | " |
| 86 | 74 | 79 | .154 | .50 | 81.7 | " |
| 2700 | 2275 | * - | 3.537 | 2.71 | * - | |
| 87.1 | 73.4 | 78.7 | .114 | - | 81.4 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.821; highest 29.960 date 14

Lowest 29.690 date 4

**TEMPERATURE**

Highest 91 date 3; lowest 71 date 1

Greatest daily range 18 date 23

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 77.4 | 1915 | 78.5 | 1924 | 77.7 | 1933 | 76.9 |
| 1907 | 79.1 | 1916 | 77.6 | 1925 | 79.5 | 1934 | 78.7 |
| 1908 | 77.6 | 1917 | 76.7 | 1926 | 77.7 | 1935 | |
| 1909 | 76.6 | 1918 | 79.6 | 1927 | 78.6 | 1936 | |
| 1910 | 77.3 | 1919 | 78.4 | 1928 | 78.1 | 1937 | |
| 1911 | 79.3 | 1920 | 78.5 | 1929 | 78.5 | 1938 | |
| 1912 | 78.7 | 1921 | 78.3 | 1930 | 79.6 | 1939 | |
| 1913 | 78.3 | 1922 | 77.4 | 1931 | 78.5 | 1940 | |
| 1914 | 79.3 | 1923 | 78.2 | 1932 | 77.9 | 1941 | |

Mean of this month for 29 years 78.2

Absolute maximum for this month for 29 years 94

Absolute minimum for this month for 29 years 66

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 29 years plus 0.5

**EVAPORATION**

Total this month 3.537 Average daily .114 inches

**PRECIPITATION**

Greatest precipitation in 24 hours .58 date 11 & 12

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1898 | 9 .98 | 1899 | 4.35 | 1913 | 4.84 | 1927 | 2.95 |
| 1880 | 5.51 | 1900 | 1.85 | 1914 | 8.28 | 1928 | 6.95 |
| 1881 | 2.48 | 1901 | 2.52 | 1915 | 3.60 | 1929 | 4.17 |
| 1882 | 2.01 | 1902 | - | 1916 | 5.86 | 1930 | 2.44 |
| 1889 | - | 1903 | - | 1917 | 4.09 | 1931 | 4.96 |
| 1890 | - | 1904 | - | 1918 | .55 | 1932 | 2.66 |
| 1891 | - | 1905 | 4.04 | 1919 | 1.81 | 1933 | 7.35 |
| 1892 | - | 1906 | 5.52 | 1920 | 1.94 | 1934 | 2.71 |
| 1893 | - | 1907 | 3.46 | 1921 | 5.19 | 1935 | |
| 1894 | - | 1908 | 4.16 | 1922 | 3.82 | 1936 | |
| 1895 | - | 1909 | 12.39 | 1923 | 3.94 | 1937 | |
| 1896 | - | 1910 | 10.63 | 1924 | 8.31 | 1938 | |
| 1897 | - | 1911 | 1.99 | 1925 | 1.88 | 1939 | |
| 1898 | 1.89 | 1912 | 3.27 | 1926 | 8.38 | 1940 | |

Average of this month for 38 years 4.30

Total from January 1, 1934 to date 78.54

Average from January 1, to date 69.39

Excess (+) or deficiency (—) from January 1, 1934 to date as compared with average of corresponding period plus 9.15

**WIND**

Prevailing direction NW Total movement 3856 miles

Average hourly velocity 5.2 miles per hour

Maximum velocity (for five minutes) 21 miles per hour

from NW on 14

**(WEATHER No. of days)**

Clear 2 Pt. Cloudy 21 Cloudy 8

Days on which .01 inch, or more, of rain occurred 16

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar none

Fogs: Light none

Fogs: Dense none

Thunderstorms 25th

Earthquakes total, 14

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C.Z.; Month JANUARY, 1935

| TEMPERATURE (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 84 | 73 | 78 | .091 | .49 | 81.1 | cldy |
| 84 | 74 | 77 | .063 | .18 | 81.3 | cldy |
| 87 | 73 | 78 | .090 | .18 | 81.6 | ptcldy |
| 87 | 73 | 79 | .071 | 0 | 81.2 | ptcldy |
| 88 | 72 | 78 | .221 | 0 | 81.0 | ptcldy |
| 87 | 71 | 77 | .157 | 0 | 81.4 | ptcldy |
| 86 | 72 | 78 | .215 | 0 | 82.0 | ptcldy |
| 87 | 70 | 77 | .145 | 0 | 81.6 | ptcldy |
| 86 | 71 | 77 | .174 | 0 | 81.8 | ptcldy |
| 87 | 71 | 78 | .166 | 0 | 81.7 | clear |
| 88 | 69 | 77 | .240 | 0 | 81.4 | clear |
| 87 | 70 | 78 | .248 | 0 | 80.4 | clear |
| 86 | 71 | 79 | .221 | .01 | 79.9 | ptcldy |
| 86 | 75 | 80 | .149 | 0 | 79.8 | ptcldy |
| 86 | 73 | 79 | .232 | 0 | 79.3 | ptcldy |
| 87 | 75 | 80 | .279 | 0 | 78.8 | ptcldy |
| 88 | 73 | 80 | .213 | 0 | 78.2 | ptcldy |
| 89 | 73 | 79 | .197 | 0 | 77.1 | clear |
| 89 | 73 | 80 | .200 | 0 | 76.8 | ptcldy |
| 89 | 73 | 80 | .177 | 0 | 76.5 | clear |
| 88 | 72 | 79 | .201 | 0 | 76.6 | clear |
| 88 | 73 | 80 | .201 | 0 | 77.3 | ptcldy |
| 87 | 72 | 78 | .256 | 0 | 78.2 | ptcldy |
| 87 | 70 | 77 | .228 | .01 | 78.4 | ptcldy |
| 86 | 69 | 77 | .177 | 0 | 78.1 | ptcldy |
| 85 | 70 | 77 | .209 | .01 | 78.4 | ptcldy |
| 85 | 70 | 77 | .193 | T | 78.3 | ptcldy |
| 87 | 69 | 77 | .161 | 0 | 77.6 | clear |
| 87 | 70 | 78 | .216 | 0 | 77.4 | ptcldy |
| 87 | 68 | 77 | .315 | 0 | 77.2 | clear |
| 87 | 68 | 77 | .291 | 0 | 75.8 | clear |
| 2692 | 2216 | * - | 5.997 | .88 | * - | |
| 86.8 | 71.5 | 78.1 | .193 | - | 79.2 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES) (Bi-hourly)

Mean 29.839; highest 30.040 date 29

Lowest 29.700 date 19

**TEMPERATURE**

Highest 89 date 18; lowest 68 date 30

Greatest daily range 19 date 30

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.0 | 1915 79.6 | 1924 78.8 | 1933 77.9 |
| 1907 78.1 | 1916 78.4 | 1925 76.9 | 1934 77.2 |
| 1908 79.4 | 1917 76.7 | 1926 79.3 | 1935 78.1 |
| 1909 77.4 | 1918 76.9 | 1927 78.5 | 1936 |
| 1910 77.1 | 1919 78.2 | 1928 78.6 | 1937 |
| 1911 78.2 | 1920 78.9 | 1929 77.8 | 1938 |
| 1912 78.9 | 1921 78.2 | 1930 78.2 | 1939 |
| 1913 78.8 | 1922 78.3 | 1931 79.5 | 1940 |
| 1914 78.5 | 1923 77.1 | 1932 78.4 | 1941 |

Mean of this month for 30 years 78.2

Absolute maximum for this month for 30 years 93

Absolute minimum for this month for 30 years 63

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 30 years -0.1

**EVAPORATION**

Total this month 5.997 Average daily .193 inches

**PRECIPITATION**

Greatest precipitation in 24 hours .49 date 1

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1887 .04 | 1899 5.61 | 1913 .63 | 1927 .18 |
| 1888 1.89 | 1900 .76 | 1914 .32 | 1928 .02 |
| 1889 .16 | 1901 0 | 1915 2.12 | 1929 .18 |
| 1890 0 | 1902 - | 1916 1.41 | 1930 .06 |
| 1891 - | 1903 - | 1917 .13 | 1931 T |
| 1892 - | 1904 - | 1918 1.78 | 1932 .38 |
| 1893 - | 1905 - | 1919 .28 | 1933 1.63 |
| 1894 - | 1906 .43 | 1920 T | 1934 4.04 |
| 1895 - | 1907 .29 | 1921 .88 | 1935 .88 |
| 1896 - | 1908 .12 | 1922 1.73 | 1936 |
| 1897 - | 1909 2.90 | 1923 .80 | 1937 |
| 1898 - | 1910 1.22 | 1924 T | 1938 |
| | 1911 .83 | 1925 1.44 | 1939 |
| | 1912 T | 1926 .01 | 1940 |

Average of this month for 37 years

Total from January 1, 1935 to date 88

Average from January 1, to date 90

Excess (+) or deficiency (—) from January 1, 1935 to date as compared with average of corresponding period -.02

**WIND**

Prevailing direction NW Total movement 6216 miles

Average hourly velocity 4.8 miles per hour

Maximum velocity (for five minutes) 26 miles per hour

from N on 28

**(WEATHER No. of days)**

Clear 9 Pt. Cloudy 20 Cloudy 2

Days on which .01 inch, or more, of rain occurred 6

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar none

Fogs: Light none

Fogs: Dense none

Thunderstorms none

Earthquakes Total No. 14

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month February, 1935

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 87 | 70 | 77 | .221 | 0 | 73.8 | Pt.Cldy |
| 83 | 70 | 75 | .291 | T | 72.8 | Pt.Cldy |
| 84 | 70 | 76 | .158 | 0 | 72.6 | Pt.Cldy |
| 87 | 69 | 77 | .287 | 0 | 70.4 | Pt.Cldy |
| 85 | 72 | 78 | .272 | 0 | 68.7 | Pt.Cldy |
| 85 | 69 | 77 | .299 | 0 | 69.1 | Pt.Cldy |
| 88 | 72 | 79 | .221 | 0 | 69.5 | Pt.Cldy |
| 90 | 72 | 80 | .232 | 0 | 68.3 | Pt.Cldy |
| 89 | 70 | 79 | .264 | 0 | 68.1 | Pt.Cldy |
| 88 | 71 | 78 | .240 | 0 | 68.8 | Pt.Cldy |
| 87 | 70 | 78 | .197 | 0 | 69.2 | Pt.Cldy |
| 87 | 72 | 78 | .197 | 0 | 67.2 | Pt.Cldy |
| 91 | 71 | 80 | .157 | T | 67.9 | Pt.Cldy |
| 89 | 74 | 79 | .197 | 0 | 67.2 | Pt.Cldy |
| 87 | 69 | 76 | .276 | .36 | 67.7 | Pt.Cldy |
| 89 | 70 | 77 | .128 | 0 | 69.2 | Clear |
| 88 | 67 | 77 | .157 | 0 | 69.9 | Pt.Cldy |
| 88 | 69 | 77 | .193 | 0 | 69.6 | Pt.Cldy |
| 87 | 71 | 78 | .244 | 0 | 71.6 | Pt.Cldy |
| 89 | 71 | 78 | .229 | 0 | 73.0 | Pt.Cldy |
| 89 | 70 | 77 | .275 | 0 | 74.0 | Pt.Cldy |
| 89 | 70 | 79 | .232 | 0 | 74.7 | Pt.Cldy |
| 91 | 71 | 79 | .350 | 0 | 75.2 | Clear |
| 92 | 72 | 79 | .244 | 0 | 75.8 | Clear |
| 90 | 74 | 80 | .256 | 0 | 76.0 | Pt.Cldy |
| 91 | 74 | 80 | .241 | 0 | 77.1 | Pt.Cldy |
| 90 | 74 | 79 | .228 | 0 | 76.9 | Pt.Cldy |
| 90 | 71 | 79 | .268 | 0 | 76.4 | Clear |
| 2470 | 1985 | * ---- | 6.554 | .36 | * ---- | |
| 88.2 | 70.9 | 78.1 | .234 | -- | 71.5 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.894; highest 30.030 date 20

Lowest 29.720 date 25

**TEMPERATURE**

Highest 92 date 24; lowest 67 date 17

Greatest daily range 21 date 17

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.4 | 1915 79.4 | 1924 78.5 | 1933 78.3 |
| 1907 76.7 | 1916 77.6 | 1925 77.1 | 1934 77.1 |
| 1908 79.9 | 1917 76.4 | 1926 80.0 | 1935 78.1 |
| 1909 78.4 | 1918 78.1 | 1927 77.9 | 1936 |
| 1910 77.5 | 1919 77.9 | 1928 80.0 | 1937 |
| 1911 77.9 | 1920 78.8 | 1929 78.8 | 1938 |
| 1912 79.3 | 1921 78.1 | 1930 78.3 | 1939 |
| 1913 78.5 | 1922 79.7 | 1931 79.8 | 1940 |
| 1914 80.0 | 1923 77.9 | 1932 78.3 | 1941 |

Mean of this month for 30 years 78.5

Absolute maximum for this month for 30 years 93

Absolute minimum for this month for 30 years 63

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 30 years -0.4

**EVAPORATION**

Total this month 6.554 Average daily .234 inches

**PRECIPITATION**

Greatest precipitation in 24 hours .36 date 15

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1887 2.52 | 1899 1.17 | 1913 .22 | 1927 1.99 |
| 1880 .12 | 1900 0 | 1914 .02 | 1928 .32 |
| 1881 .16 | 1901 1.11 | 1915 2.96 | 1929 .02 |
| 1882 .12 | 1902 -- | 1916 1.48 | 1930 .85 |
| 1889 -- | 1903 -- | 1917 .19 | 1931 T |
| 1890 -- | 1904 -- | 1918 T | 1932 .46 |
| 1891 -- | 1905 -- | 1919 T | 1933 .30 |
| 1892 -- | 1906 .33 | 1920 T | 1934 .07 |
| 1893 -- | 1907 .04 | 1921 2.37 | 1935 .36 |
| 1894 -- | 1908 .24 | 1922 2.03 | 1936 |
| 1895 -- | 1909 2.90 | 1923 T | 1937 |
| 1896 -- | 1910 .43 | 1924 .05 | 1938 |
| 1897 -- | 1911 2.75 | 1925 .07 | 1939 |
| 1898 -- | 1912 .08 | 1926 .07 | 1940 |

Average of this month for 37 years .70

Total from January 1, 1935 to date 1.24

Average from January 1, to date 1.60

Excess (+) or deficiency (—) from January 1, 1935 to date as compared with average of corresponding period --.36

**WIND**

Prevailing direction NW Total movement 6418 miles

Average hourly velocity 3.6 miles per hour

Maximum velocity (for five minutes) .30 miles per hour from N on 28

**(WEATHER No. of days)**

Clear 4 Pt. Cloudy 24 Cloudy 0

Days on which .01 inch, or more, of rain occurred 1

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms None

Earthquakes Total 15

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

66-6

MR 33839—Panama Canal—3-3-33—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month March, 1935

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 90 | 73 | 80 | .484 | T | 76.7 | Pt. Cldy. |
| 90 | 73 | 80 | .256 | 0 | 77.8 | Pt. Cldy. |
| 90 | 73 | 80 | .252 | 0 | 78.5 | Clear |
| 91 | 74 | 81 | .230 | 0 | 78.2 | Clear |
| 91 | 74 | 81 | .224 | 0 | 76.9 | Pt.Cldy. |
| 91 | 76 | 82 | .209 | 0 | 76.4 | Pt.Cldy. |
| 88 | 75 | 80 | .299 | 0 | 76.2 | Pt.Cldy. |
| 90 | 75 | 82 | .284 | 0 | 77.5 | Pt.Cldy |
| 91 | 76 | 82 | .315 | 0 | 78.4 | Pt.Cldy. |
| 91 | 74 | 80 | .236 | 0 | 78.5 | Clear |
| 91 | 73 | 80 | .307 | 0 | 79.8 | Pt.Cldy |
| 90 | 72 | 79 | .259 | 0 | 79.8 | Pt.Cldy |
| 90 | 74 | 80 | .201 | 0 | 79.9 | Pt.Cldy. |
| 90 | 72 | 79 | .225 | 0 | 79.3 | Pt.Cldy. |
| 90 | 71 | 79 | .218 | 0 | 78.2 | Pt.Cldy. |
| 90 | 70 | 79 | .264 | 0 | 77.2 | Clear |
| 88 | 72 | 80 | .236 | 0 | 77.6 | Pt.Cldy. |
| 91 | 72 | 80 | .307 | 0 | 78.0 | Clear |
| 91 | 72 | 80 | .319 | 0 | 77.1 | Pt.Cldy. |
| 92 | 70 | 79 | .382 | 0 | 76.2 | Clear |
| 91 | 70 | 79 | .295 | 0 | 75.8 | Clear |
| 90 | 73 | 80 | .325 | 0 | 75.4 | Clear |
| 91 | 73 | 80 | .346 | 0 | 75.6 | Clear |
| 90 | 73 | 80 | .398 | 0 | 75.3 | Clear |
| 91 | 73 | 80 | .335 | 0 | 74.5 | Clear |
| 90 | 74 | 81 | .370 | 0 | 74.8 | Clear |
| 92 | 72 | 81 | .244 | 0 | 75.4 | Pt.Cldy. |
| 91 | 73 | 82 | .198 | 0 | 73.8 | Pt.Cldy. |
| 93 | 73 | 81 | .364 | 0 | 70.9 | Pt.Cldy. |
| 93 | 73 | 81 | .302 | 0 | 71.5 | Pt.Cldy. |
| 92 | 72 | 80 | .271 | 0 | 71.8 | Clear |
| 2815 | 2260 | — | 8.853 | T | — | |
| 90.7 | 72.9 | 80.5 | .286 | — | 76.6 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.848; highest 29.970 date 13

Lowest 29.700 date 4

**TEMPERATURE**

Highest 93 date 30; lowest 70 date 16

Greatest daily range 22 date 20

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 80.2 | 1915 81.4 | 1924 79.9 | 1933 79.3 |
| 1907 79.3 | 1916 79.0 | 1925 78.1 | 1934 78.8 |
| 1908 80.5 | 1917 78.8 | 1926 80.6 | 1935 80.3 |
| 1909 79.8 | 1918 78.0 | 1927 80.3 | 1936 |
| 1910 77.5 | 1919 79.6 | 1928 80.4 | 1937 |
| 1911 78.3 | 1920 80.0 | 1929 79.4 | 1938 |
| 1912 81.1 | 1921 79.3 | 1930 80.5 | 1939 |
| 1913 80.1 | 1922 79.7 | 1931 81.3 | 1940 |
| 1914 80.8 | 1923 79.3 | 1932 79.7 | 1941 |

Mean of this month for 30 years 79.7

Absolute maximum for this month for 30 years 96

Absolute minimum for this month for 30 years 65

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 30 years + 0.6

**EVAPORATION**

Total this month 8.853 Average daily .286 inches

**PRECIPITATION**

Greatest precipitation in 24 hours T date 1st

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 22 5.71 | 1899 2.41 | 1913 .43 | 1927 .01 |
| 1886 0 .16 | 1900 0 | 1914 T | 1928 4.07 |
| 1887 1 .35 | 1901 0 | 1915 T | 1929 2.19 |
| 1888 2 0 | 1902 - | 1916 .89 | 1930 .01 |
| 1889 - | 1903 - | 1917 .02 | 1931 .70 |
| 1890 - | 1904 - | 1918 1.25 | 1932 .13 |
| 1891 - | 1905 - | 1919 T | 1933 .46 |
| 1892 - | 1906 .05 | 1920 .09 | 1934 .20 |
| 1893 - | 1907 T | 1921 2.98 | 1935 T |
| 1894 - | 1908 .03 | 1922 1.02 | 1936 |
| 1895 - | 1909 .18 | 1923 T | 1937 |
| 1896 - | 1910 1.83 | 1924 .07 | 1938 |
| 1897 - | 1911 .25 | 1925 .07 | 1939 |
| 1898 | 1912 .01 | 1926 0 | 1940 |

Average of this month for 37 years 69

Total from January 1, 1935 to date 1.24

Average from January 1, to date 2.29

Excess (+) or deficiency (—) from January 1, 1935 to date as compared with average of corresponding period — 1.05

**WIND**

Prevailing direction NW Total movement 7524 miles

Average hourly velocity 10.1 miles per hour

Maximum velocity (for five minutes) 26 miles per hour from N on 23

**(WEATHER No. of days)**

Clear 12 Pt. Cloudy 19 Cloudy 0

Days on which .01 inch, or more, of rain occurred 0

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms None

Earthquakes Total - 13

T indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month April, 1935

| TEMPERATURE (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 91 | 72 | 81 | .381 | 0 | 72.8 | Pt.cldy |
| 89 | 73 | 80 | .228 | 0 | 72.6 | Pt.cldy |
| 88 | 71 | 79 | .209 | .01 | 71.8 | Pt.cldy |
| 90 | 72 | 80 | .216 | 0 | 73.1 | Pt.cldy |
| 90 | 71 | 80 | .217 | 0 | 71.2 | Pt.cldy |
| 88 | 71 | 79 | .244 | 0 | 72.4 | Pt.cldy |
| 87 | 68 | 78 | .158 | 0 | 73.7 | Pt.cldy |
| 90 | 70 | 79 | .220 | 0 | 74.9 | Clear |
| 90 | 71 | 79 | .193 | .43 | 75.0 | Pt.cldy |
| 88 | 71 | 78 | .201 | T | 75.9 | Cldy |
| 86 | 73 | 79 | .193 | 0 | 76.7 | Pt.cldy |
| 90 | 73 | 80 | .244 | 0 | 76.7 | Pt.cldy |
| 90 | 74 | 81 | .327 | 0 | 76.2 | Pt.cldy |
| 89 | 76 | 81 | .382 | .05 | 76.1 | Pt.cldy |
| 91 | 73 | 82 | .268 | 0 | 75.2 | Pt.cldy |
| 90 | 75 | 81 | .260 | 0 | 75.0 | Pt.cldy |
| 90 | 74 | 81 | .252 | 0 | 75.0 | Pt.cldy |
| 87 | 75 | 80 | .237 | .22 | 74.2 | Pt.cldy |
| 90 | 75 | 82 | .181 | 0 | 74.9 | Pt.cldy |
| 90 | 75 | 82 | .212 | T | 75.5 | Pt.cldy |
| 91 | 74 | 82 | .257 | 0 | 74.2 | Pt.cldy |
| 92 | 76 | 83 | .236 | 0 | 74.4 | Pt.cldy |
| 91 | 74 | 81 | .201 | 0 | 75.6 | Pt.cldy |
| 93 | 74 | 82 | .129 | 0 | 77.7 | Pt.cldy |
| 93 | 73 | 82 | .237 | 0 | 78.2 | Pt.cldy |
| 93 | 74 | 82 | .234 | 0 | 79.2 | Pt.cldy |
| 86 | 74 | 78 | .224 | 0 | 78.2 | Cldy |
| 87 | 73 | 79 | .107 | 0 | 78.7 | Pt.cldy |
| 91 | 74 | 80 | .102 | 1.23 | 79.5 | Pt.cldy |
| 89 | 74 | 80 | .165 | .48 | 79.8 | Cldy |
| 2690 | 2195 | * 0 | 6.647 | 2.40 | * - | |
| 89.7 | 73.2 | 80.4 | .222 | - | 76.5 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) 30.019 29.920 5th

Mean 29.670; highest 24th

Lowest date

**TEMPERATURE** 93 68 7

Highest date 20; lowest date 8

Greatest daily range date

Bihourly 80.8 for this month 79.4: 80.5 80.5

| | | | |
|---|---|---|---|
| 1906 79.6 | 1915 79.7 | 1924 79.9 | 1933 80.5 |
| 1907 80.8 | 1916 78.9 | 1925 81.8 | 1934 80.4 |
| 1908 79.6 | 1917 79.0 | 1926 79.8 | 1935 |
| 1909 78.5 | 1918 80.1 | 1927 80.7 | 1936 |
| 1910 79.5 | 1919 81.1 | 1928 80.1 | 1937 |
| 1911 80.6 | 1920 79.8 | 1929 79.9 | 1938 |
| 1912 80.3 | 1921 81.6 | 1930 82.1 | 1939 |
| 1913 81.1 | 1922 79.6 | 1931 81.0 | 1940 |
| 1914 | 1923 80 | 1932 | 1941 80.2 |

Mean of this month for 30 years 87

Absolute maximum for this month for 30 years 94

Absolute minimum for this month for years

Average daily excess, (+) or deficiency (—) of this month as compared with mean of years

**EVAPORATION** 6.647 .222

Total this month Average daily inches

**PRECIPITATION** 1.69 29 & 30

Greatest precipitation in 24 hours date

Total precipitation this month in: .03 4.67

| | | | |
|---|---|---|---|
| 1880 1.61 | 1899 2.35 | 1913 4.80 | 1927 3.38 |
| 1881 3.23 | 1900 .25 | 1914 5.37 | 1928 .43 |
| 1882 .98 | 1901 - | 1915 2.04 | 1929 6.78 |
| 1883 | 1902 - | 1916 2.24 | 1930 1.45 |
| 1889 | 1903 - | 1917 4.52 | 1931 7.56 |
| 1890 | 1904 - | 1918 6.43 | 1932 3.45 |
| 1891 | 1905 7.77 | 1919 2.02 | 1933 5.00 |
| 1892 | 1906 T | 1920 1.10 | 1934 2.40 |
| 1893 | 1907 1.87 | 1921 .16 | 1935 |
| 1894 | 1908 2.92 | 1922 .83 | 1936 |
| 1895 | 1909 2.73 | 1923 3.72 | 1937 |
| 1896 | 1910 6.94 | 1924 2.65 | 1938 |
| 1897 | 1911 2.02 | 1925 .08 | 1939 |
| 1898 | 1912 .87 | 1926 | 1940 3.02 |

Average of this month for 35 years 3.56

Total from January 1, 19 to date 5.31

Average from January 1, to date 35

Excess (+) or deficiency (—) from January 1, 19 - to date 1.87 as compared with average of corresponding period

**WIND** NW 5872

Prevailing direction Total movement miles

Average hourly velocity 25 miles per hour

Maximum velocity (for five minutes 28 miles per hour

from on

**(WEATHER** 1 (No. of days) 3

Clear Pt. Cloudy Cloudy 6

Days on which .01 inch, or more, of rain occurred

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense 28 and 29

Thunderstorms Total - 15

Earthquakes

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month May, 1935

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a. m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 91 | 74 | 81 | .150 | .01 | 79.6 | Pt.cldy |
| 86 | 76 | 79 | .219 | .06 | 79.9 | cldy |
| 89 | 74 | 80 | .111 | T | 79.8 | cldy |
| 85 | 74 | 78 | .118 | .04 | 80.4 | Pt. cldy |
| 88 | 73 | 78 | .078 | 4.64 | 79.8 | Pt. cldy |
| 88 | 73 | 79 | .122 | .15 | 80.9 | clear |
| 89 | 74 | 80 | .150 | .09 | 81.8 | Pt. cldy |
| 87 | 74 | 78 | .087 | .02 | 81.1 | Pt. cldy |
| 86 | 73 | 79 | .098 | .14 | 80.8 | cldy. |
| 87 | 75 | 78 | .119 | .22 | 80.9 | cldy. |
| 86 | 72 | 78 | .071 | 0 | 82.5 | Pt. cldy. |
| 87 | 74 | 79 | .061 | .01 | 82.7 | Pt. cldy. |
| 89 | 74 | 81 | .128 | 0 | 82.6 | Pt. cldy. |
| 85 | 77 | 80 | .110 | 0 | 81.7 | cldy. |
| 87 | 73 | 80 | .087 | 0 | 82.2 | Pt. cldy. |
| 87 | 73 | 79 | .150 | 0 | 83.2 | Pt. cldy. |
| 90 | 75 | 80 | .075 | T | 82.9 | Pt. cldy. |
| 88 | 73 | 81 | .106 | .07 | 82.8 | Pt. cldy. |
| 88 | 73 | 81 | .087 | 0 | 83.2 | Pt. cldy. |
| 85 | 76 | 79 | .079 | .15 | 82.2 | cldy. |
| 84 | 73 | 78 | .079 | .82 | 82.3 | cldy. |
| 85 | 73 | 77 | .118 | .15 | 82.6 | Pt. cldy. |
| 86 | 74 | 79 | .039 | .01 | 84.3 | Pt. cldy. |
| 86 | 73 | 79 | .118 | T | [illegible] | Pt. cldy. |
| 89 | 73 | 79 | .079 | 1.01 | 83.2 | Pt. cldy. |
| 87 | 74 | 79 | .079 | .01 | 83.1 | cldy |
| 86 | 73 | 79 | .122 | .11 | 82.6 | cldy. |
| 88 | 74 | 79 | .091 | 0 | 83.3 | Pt. cldy. |
| 90 | 73 | 80 | .075 | .37 | 82.7 | Pt. cldy. |
| 84 | 73 | 79 | .086 | .02 | 82.2 | cldy. |
| 84 | 73 | 77 | .069 | 0 | 81.8 | cldy. |
| [illegible] | [illegible] | * - | 5.086 | 8.10 | * - | |
| 87.0 | 74.2 | 79.0 | .100 | - | 82.0 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.829; highest 29.950 date 8

Lowest 29.700 date 18

**TEMPERATURE**

Highest 91 date 1; lowest 72 date 11

Greatest daily range ..... date .....

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.9 | 1915 79.9 | 1924 79.0 | 1933 79.3 |
| 1907 80.1 | 1916 79.2 | 1925 80.2 | 1934 78.9 |
| 1908 78.5 | 1917 78.2 | 1926 80.9 | 1935 79.0 |
| 1909 78.3 | 1918 78.8 | 1927 78.6 | 1936 |
| 1910 77.7 | 1919 80.2 | 1928 79.6 | 1937 |
| 1911 78.0 | 1920 80.3 | 1929 79.7 | 1938 |
| 1912 80.3 | 1921 78.8 | 1930 79.9 | 1939 |
| 1913 78.4 | 1922 79.3 | 1931 79.7 | 1940 |
| 1914 80.1 | 1923 79.3 | 1932 78.9 | 1941 |

Mean of this month for 30 years 79.3

Absolute maximum for this month for 30 years 96

Absolute minimum for this month for 30 years 69

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 30 years -0.3

**EVAPORATION**

Total this month 3.086 Average daily .100 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 4.68 date 4 to 5

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1888 10.28 | 1899 9.58 | 1913 8.27 | 1927 9.06 |
| 1889 4.45 | 1900 11.22 | 1914 6.98 | 1928 4.20 |
| 1890 10.36 | 1901 11.08 | 1915 6.42 | 1929 4.04 |
| 1891 5.24 | 1902 - | 1916 12.59 | 1930 8.70 |
| 1889 - | 1903 - | 1917 5.75 | 1931 13.15 |
| 1890 - | 1904 - | 1918 6.75 | 1932 9.38 |
| 1891 - | 1905 - | 1919 5.21 | 1933 7.96 |
| 1892 - | 1906 10.88 | 1920 3.31 | 1934 4.96 |
| 1893 - | 1907 4.44 | 1921 8.60 | 1935 8.10 |
| 1894 - | 1908 7.64 | 1922 9.88 | 1936 |
| 1895 - | 1909 9.10 | 1923 5.84 | 1937 |
| 1896 - | 1910 9.89 | 1924 5.51 | 1938 |
| 1897 - | 1911 11.04 | 1925 6.73 | 1939 |
| 1898 - | 1912 10.71 | 1926 4.16 | 1940 |

Average of this month for 37 years 7.90

Total from January 1, 1935 to date 11.74

Average from January 1, to date 13.81

Excess (+) or deficiency (—) from January 1, 1935 to date as compared with average of corresponding period -1.47

**WIND**

Prevailing direction NE Total movement 3481 miles

Average hourly velocity 4.7 miles per hour

Maximum velocity (for five minutes) 18 miles per hour

from S on 22

**(WEATHER No. of days)**

Clear 1 Pt. Cloudy 18 Cloudy 12

Days on which .01 inch, or more, of rain occurred 20

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar 12th

Fogs: Light None

Fogs: Dense None

Thunderstorms 6, 7, 8, 10, 12, 25, 26, 27 & 29

Earthquakes Total - 9

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month June, 1935

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 84 | 72 | 78 | .066 | 0 | 82.0 | Pt.Cldy. |
| 85 | 73 | 79 | .047 | 0 | 83.4 | Pt.Cldy. |
| 90 | 75 | 81 | .140 | 0 | 83.5 | Pt.Cldy. |
| 84 | 75 | 79 | .102 | .04 | 83.2 | Cloudy |
| 86 | 76 | 79 | .051 | .01 | 83.2 | Cloudy |
| 84 | 75 | 78 | .154 | .04 | 82.8 | Cloudy |
| 86 | 73 | 78 | .079 | .02 | 82.6 | Cloudy |
| 90 | 75 | 80 | .071 | .73 | 82.6 | Cloudy |
| 86 | 74 | 80 | .047 | 0 | 83.7 | Cloudy |
| 89 | 75 | 80 | .079 | .86 | 84.8 | Cloudy |
| 86 | 75 | 78 | .065 | .18 | 83.8 | Cloudy |
| 84 | 73 | 78 | .039 | 0 | 83.2 | Cloudy |
| 86 | 74 | 79 | .079 | 0 | 83.7 | Cloudy |
| 81 | 74 | 77 | .106 | .32 | 82.5 | Cloudy |
| 88 | 73 | 79 | .051 | .01 | 82.8 | Pt.Cldy. |
| 89 | 75 | 79 | .079 | .09 | 83.7 | Cloudy |
| 88 | 72 | 76 | .105 | 1.12 | 82.6 | Cloudy |
| 85 | 72 | 79 | .082 | .01 | 82.2 | Pt.Cldy. |
| 84 | 75 | 79 | .091 | .09 | 83.2 | Cloudy |
| 85 | 74 | 78 | .092 | .14 | 83.5 | Cloudy |
| 88 | 73 | 78 | .120 | 0 | 83.2 | Cloudy |
| 90 | 74 | 79 | .105 | 1.01 | 83.4 | Cloudy |
| 88 | 74 | 78 | .080 | .28 | 83.3 | Cloudy |
| 84 | 73 | 78 | .099 | .09 | 83.0 | Cloudy |
| 87 | 73 | 80 | .074 | .07 | 83.8 | Pt.Cldy |
| 85 | 73 | 78 | .108 | .32 | 83.2 | Cloudy |
| 86 | 73 | 78 | .075 | 1.92 | 83.0 | Cloudy |
| 87 | 73 | 78 | .087 | .09 | 83.2 | Cloudy |
| 82 | 73 | 77 | .074 | .08 | 82.2 | Cloudy |
| 87 | 74 | 78 | .044 | .02 | 82.2 | Cloudy |
| 2582 | 2219 | * - | 2.440 | 7.54 | * - | |
| 86.1 | 74.0 | 78.5 | .081 | - | 83.1 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.828; highest 29.940 date 14

Lowest 29.710 date 10

**TEMPERATURE**

Highest 90 date 8; lowest 72 date 17

Greatest daily range 16 date 17

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.7 | 1915 | 79.8 | 1924 | 77.8 | 1933 | 78.4 |
| 1907 | 78.2 | 1916 | 77.9 | 1925 | 78.8 | 1934 | 78.9 |
| 1908 | 78.5 | 1917 | 77.6 | 1926 | 79.8 | 1935 | 78.5 |
| 1909 | 77.4 | 1918 | 78.5 | 1927 | 78.3 | 1936 | |
| 1910 | 77.8 | 1919 | 79.5 | 1928 | 78.4 | 1937 | |
| 1911 | 78.8 | 1920 | 79.2 | 1929 | 78.5 | 1938 | |
| 1912 | 79.1 | 1921 | 78.5 | 1930 | 79.4 | 1939 | |
| 1913 | 79.0 | 1922 | 78.4 | 1931 | 79.5 | 1940 | |
| 1914 | 79.2 | 1923 | 78.7 | 1932 | 78.7 | 1941 | |

Mean of this month for 20 years 78.6

Absolute maximum for this month for 20 years 95

Absolute minimum for this month for 20 years 70

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 20 years -0.1

**EVAPORATION**

Total this month 2.440 Average daily .081 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 3.01 date 27 to 28

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1885 | 6.46 | 1899 | 2.48 | 1913 | 8.15 | 1927 | 10.85 |
| 1886 | 5.00 | 1900 | 8.25 | 1914 | 7.28 | 1928 | 8.78 |
| 1887 | 13.78 | 1901 | 12.85 | 1915 | 2.85 | 1929 | 9.34 |
| 1888 | 6.18 | 1902 | - | 1916 | 4.39 | 1930 | 2.50 |
| 1889 | - | 1903 | - | 1917 | 7.35 | 1931 | 7.81 |
| 1890 | - | 1904 | - | 1918 | 5.20 | 1932 | 9.23 |
| 1891 | - | 1905 | 7.53 | 1919 | 8.95 | 1933 | 14.36 |
| 1892 | - | 1906 | 8.57 | 1920 | 4.88 | 1934 | 10.86 |
| 1893 | - | 1907 | 12.64 | 1921 | 7.88 | 1935 | 7.54 |
| 1894 | - | 1908 | 4.28 | 1922 | 7.82 | 1936 | |
| 1895 | - | 1909 | 9.20 | 1923 | 5.59 | 1937 | |
| 1896 | - | 1910 | 8.28 | 1924 | 8.41 | 1938 | |
| 1897 | - | 1911 | 5.40 | 1925 | 18.34 | 1939 | |
| 1898 | - | 1912 | 5.80 | 1926 | 12.33 | 1940 | |

Average of this month for 55 years 8.23

Total from January 1, 1935 to date 19.28

Average from January 1, to date 21.44

Excess (+) or deficiency (—) from January 1, 1935 to date as compared with average of corresponding period -2.16

**WIND**

Prevailing direction NW Total movement 3231 miles

Average hourly velocity 4.5 miles per hour

Maximum velocity (for five minutes) 24 miles per hour

from NW on 25

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 6 Cloudy 24

Days on which .01 inch, or more, of rain occurred 23

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light 24

Fogs: Dense 24 27, 29&30

Thunderstorms 5, 7, 8, 9, 10, 11, 17, 22, 23, 25, 28

Earthquakes 2, 8, 9, 10, 11, 16, 21, 24 & 29

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month July, 1935

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 89 | 75 | 79 | .094 | .34 | 82.6 | cldy |
| 89 | 75 | 79 | .081 | .30 | 82.5 | " |
| 87 | 75 | 77 | .150 | 2.03 | 81.7 | " |
| 81 | 74 | 77 | .071 | .02 | 81.6 | " |
| 86 | 73 | 78 | .047 | 0 | 82.2 | ptcldy |
| 86 | 74 | 77 | .099 | 2.80 | 81.9 | cldy |
| 86 | 73 | 77 | .134 | 2.26 | 81.5 | " |
| 84 | 72 | 78 | .075 | 0 | 80.1 | " |
| 85 | 72 | 78 | .071 | 0 | 83.0 | ptcldy |
| 85 | 74 | 79 | .098 | T | 83.5 | cldy |
| 88 | 73 | 79 | .075 | 0 | 84.2 | ptcldy |
| 88 | 73 | 80 | .118 | 0 | 83.9 | " |
| 92 | 75 | 82 | .114 | 0 | 83.6 | " |
| 89 | 76 | 82 | .146 | .07 | 83.4 | cldy |
| 86 | 77 | 79 | .094 | .14 | 82.6 | " |
| 86 | 73 | 77 | .083 | .77 | 82.6 | " |
| 85 | 73 | 76 | .103 | .13 | 82.2 | " |
| 84 | 73 | 77 | .062 | .07 | 81.4 | " |
| 88 | 73 | 79 | .062 | .04 | 81.8 | " |
| 87 | 74 | 78 | .081 | 1.37 | 81.4 | " |
| 80 | 72 | 75 | .051 | 2.18 | 79.6 | " |
| 85 | 73 | 78 | .056 | 0 | 79.8 | " |
| 87 | 73 | 78 | .067 | .14 | 82.0 | ptcldy |
| 85 | 73 | 78 | .060 | .06 | 81.6 | cldy |
| 85 | 75 | 79 | .067 | 0 | 82.4 | " |
| 86 | 75 | 78 | .102 | T | 82.0 | " |
| 88 | 75 | 79 | .063 | .03 | 81.4 | ptcldy |
| 87 | 75 | 80 | .081 | 0 | 81.7 | cldy |
| 90 | 75 | 80 | .081 | .21 | 82.2 | " |
| 87 | 75 | 79 | .118 | .25 | 82.5 | " |
| 86 | 76 | 78 | .075 | 0 | 82.2 | " |
| 876 | 292 | * | 2.439 | 15.16 | *82.1 | |
| 86.3 | 73.0 | 78.4 | .085 | - | - | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) 29.807 29.940 12

Mean 29.686 : highest 15 date

Lowest date

**TEMPERATURE** 92 15 72 21

Highest date 17 lowest date

Greatest daily range date 13

Bihourly Mean for this month is: 78.0 78.4 78.2 78.8

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.6 | 1915 | 77.4 | 1924 | 78.5 | 1933 | 79.4 |
| 1907 | 78.5 | 1916 | 77.8 | 1925 | 78.9 | 1934 | 78.4 |
| 1908 | 77.5 | 1917 | 79.4 | 1926 | 78.8 | 1935 | |
| 1909 | 76.6 | 1918 | 79.1 | 1927 | 78.2 | 1936 | |
| 1910 | 79.9 | 1919 | 78.9 | 1928 | 77.7 | 1937 | |
| 1911 | 78.9 | 1920 | 78.9 | 1929 | 79.5 | 1938 | |
| 1912 | 79.1 | 1921 | 79.8 | 1930 | 79.8 | 1939 | |
| 1913 | 80.7 | 1922 | 79.5 | 1931 | 78.4 | 1940 | |
| 1914 | | 1923 | 30 | 1932 | 78.8 | | |

Mean of this month for 30 years 95

Absolute maximum for this month for 30 years 87

Absolute minimum for this month for years

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 30 years -0.6

**EVAPORATION** 2.637 .085

Total this month Average daily inches

**PRECIPITATION** 2.85 6 & 7

Greatest precipitation in 24 hours date

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1885 | 7.91 | 1899 | 8.21 | 1913 | 4.85 | 1927 | 7.91 |
| 1886 | 9.86 | 1900 | 15.82 | 1914 | 4.52 | 1928 | 5.22 |
| 1887 | 7.20 | 1901 | 14.11 | 1915 | 6.93 | 1929 | 4.04 |
| 1888 | 5.55 | 1902 | - | 1916 | 10.15 | 1930 | 10.46 |
| 1889 | - | 1903 | - | 1917 | 10.17 | 1931 | 6.29 |
| 1890 | - | 1904 | 4.51 | 1918 | 5.15 | 1932 | 6.01 |
| 1891 | - | 1905 | 9.01 | 1919 | 4.79 | 1933 | 5.39 |
| 1892 | - | 1906 | 4.28 | 1920 | 6.18 | 1934 | 15.16 |
| 1893 | - | 1907 | 6.85 | 1921 | 8.07 | 1935 | |
| 1894 | - | 1908 | 9.01 | 1922 | 5.08 | 1936 | |
| 1895 | - | 1909 | 9.26 | 1923 | 5.15 | 1937 | |
| 1896 | - | 1910 | 5.78 | 1924 | 5.97 | 1938 | |
| 1897 | 5.55 | 1911 | 10.25 | 1925 | 5.85 | 1939 | |
| 1898 | | 1912 | 39 | 1926 | 9.95 | 1940 | 7.53 |

Average of this month for 35 years 52.44

Total from January 1, 19 to date 28.77

Average from January 1, to date 35

Excess (+) or deficiency (—) from January 1, 19 35.67 date as compared with average of corresponding period

**WIND** NW 3034

Prevailing direction Total movement miles

Average hourly velocity 5.3 miles per hour

Maximum velocity (for five minutes) 26 miles per hour

from SW on 7th

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 7 Cloudy 24

Days on which .01 inch, or more, of rain occurred 19

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar none

Fogs: Light none

Fogs: Dense 1, 2, 3, 4, 5, 7, 14, 15, 16, 17, 20, 21,

Thunderstorms 23, 24, 27, 28, 29, 30

Earthquakes Total 10

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

066-6

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

*Station,* BALBOA HEIGHTS ; *Month* AUGUST , *1935*

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a. m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| | 79 | 73 | 76 | .098 | 2.03 | 80.6 | Cloudy |
| | 88 | 72 | 78 | .059 | .08 | 81.2 | Cloudy |
| | 89 | 73 | 78 | .050 | .22 | 81.6 | Cloudy |
| | 86 | 72 | 77 | .117 | .14 | 81.0 | Cloudy |
| | 88 | 73 | 80 | .094 | 0 | 82.1 | Pt Cldy |
| | 87 | 73 | 79 | .114 | 0 | 82.7 | Cloudy |
| | 83 | 74 | 77 | .122 | .61 | 81.6 | Cloudy |
| | 83 | 72 | 76 | .047 | 2.29 | 79.8 | Cloudy |
| | 85 | 73 | 78 | .067 | 0 | 82.4 | Pt Cldy |
| | 87 | 73 | 79 | .091 | 0 | 84.4 | Pt.Cldy |
| | 85 | 73 | 78 | .118 | 0 | 84.2 | Pt Cldy |
| | 87 | 74 | 79 | .114 | .88 | 83.8 | Pt Cldy |
| | 77 | 72 | 74 | .150 | 1.54 | 81.2 | Cloudy |
| | 84 | 71 | 78 | .049 | .06 | 81.9 | Cloudy |
| | 84 | 74 | 78 | .079 | .11 | 83.9 | Cloudy |
| | 86 | 73 | 79 | .055 | .01 | 84.8 | Pt Cldy |
| | 86 | 74 | 78 | .118 | .41 | 82.7 | Cloudy |
| | 80 | 74 | 76 | .048 | .36 | 82.2 | Cloudy |
| | 82 | 72 | 76 | .063 | .57 | 81.0 | Cloudy |
| | 82 | 74 | 77 | .047 | .25 | 81.0 | Cloudy |
| | 87 | 74 | 79 | .051 | .05 | 83.2 | Pt Cldy |
| | 87 | 74 | 78 | .063 | .38 | 83.2 | Cloudy |
| | 80 | 73 | 76 | .094 | .19 | 82.2 | Cloudy |
| | 85 | 74 | 78 | .047 | .80 | 82.3 | Pt Cldy |
| | 83 | 74 | 77 | .071 | .07 | 82.8 | Cloudy |
| | 85 | 73 | 77 | .040 | .04 | 83.0 | Pt Cldy |
| | 80 | 72 | 77 | .068 | .03 | 82.8 | Cloudy |
| | 83 | 73 | 79 | .065 | 0 | 81.6 | Cloudy |
| | 86 | 73 | 80 | .083 | 0 | 85.1 | Pt Cldy |
| | 89 | 74 | 79 | .102 | .15 | 83.8 | Cloudy |
| | 87 | 73 | 79 | .107 | .13 | 83.2 | Cloudy |
| | 80 | 2272 | * | 2.585 | 11.41 | * | |
| | .5 | 73.3 | 77.7 | .081 | — | 82.4 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)
(Bi-hourly)
Mean 29.840 ; highest 29.960 date 13th
Lowest 29.730 date 19th

**TEMPERATURE**

Highest 89 date 30th ; lowest 71 date 14th
Greatest daily range 16 date 2nd
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.1 | 1915 | 79.0 | 1924 | 77.7 | 1933 | 78.8 |
| 1907 | 78.6 | 1916 | 77.1 | 1925 | 79.1 | 1934 | 79.4 |
| 1908 | 78.6 | 1917 | 66.6 | 1926 | 79.2 | 1935 | 77.7 |
| 1909 | 77.8 | 1918 | 79.1 | 1927 | 78.8 | 1936 | |
| 1910 | 77.4 | 1919 | 79.5 | 1928 | 78.2 | 1937 | |
| 1911 | 78.5 | 1920 | 78.7 | 1929 | 77.7 | 1938 | |
| 1912 | 78.8 | 1921 | 78.8 | 1930 | 79.3 | 1939 | |
| 1913 | 78.8 | 1922 | 79.1 | 1931 | 79.8 | 1940 | |
| 1914 | 79.4 | 1923 | 78.7 | 1932 | 78.4 | 1941 | |

Mean of this month for 30 years 78.6
Absolute maximum for this month for 30 years 94
Absolute minimum for this month for 30 years 68
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 30 years -0.9

**EVAPORATION**

Total this month 2.523 Average daily .081 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.90 date 7 & 8
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1898 | 7.24 | 1899 | 8.60 | 1913 | 8.20 | 1927 | 7.76 |
| 1880 | 11.46 | 1900 | 6.00 | 1914 | 6.09 | 1928 | 6.87 |
| 1881 | 4.49 | 1901 | 8.67 | 1915 | 15.24 | 1929 | 11.96 |
| 1882 | 4.05 | 1902 | — | 1916 | 10.53 | 1930 | 4.34 |
| 1889 | — | 1903 | — | 1917 | 7.42 | 1931 | 4.88 |
| 1890 | — | 1904 | — | 1918 | 3.84 | 1932 | 7.61 |
| 1891 | — | 1905 | 5.31 | 1919 | 5.82 | 1933 | 6.55 |
| 1892 | — | 1906 | 6.43 | 1920 | 12.22 | 1934 | 4.52 |
| 1893 | 3.46 | 1907 | 7.46 | 1921 | 9.51 | 1935 | 11.41 |
| 1894 | — | 1908 | 11.48 | 1922 | 1.46 | 1936 | |
| 1895 | — | 1909 | 6.84 | 1923 | 5.37 | 1937 | |
| 1896 | — | 1910 | 12.00 | 1924 | 14.44 | 1938 | |
| 1897 | — | 1911 | 7.21 | 1925 | 10.83 | 1939 | |
| 1898 | 6.89 | 1912 | 6.55 | 1926 | 10.45 | 1940 | |

Average of this month for 39 years 7.38
Total from January 1, 1935 to date 43.85
Average from January 1, to date 36.65
Excess (+) or deficiency (—) from January 1, 1935 to date as compared with average of corresponding period 17.20

**WIND**

Prevailing direction N W Total movement 3544 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity (for five minutes) 22 miles per hour
from S on 24

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 10 Cloudy 21
Days on which .01 inch, or more, of rain occurred 24

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms 1, 3, 6, 7, 12, 13, 14, 15, 17, 22, 30
Earthquakes Total - 19

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month September, 1935

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 89 | 74 | 80 | .067 | 0 | 83.9 | pt cldy |
| 88 | 75 | 79 | .141 | .01 | 83.8 | " |
| 86 | 74 | 79 | .111 | 0 | 83.1 | " |
| 91 | 75 | 80 | .078 | .05 | 83.1 | " |
| 88 | 76 | 79 | .075 | .02 | 83.3 | cldy |
| 88 | 75 | 80 | .118 | .08 | 83.3 | pt cldy |
| 85 | 75 | 78 | .097 | .05 | 82.5 | cldy |
| 79 | 74 | 76 | .090 | .11 | 82.1 | " |
| 88 | 71 | 80 | .105 | .04 | 82.5 | pt cldy |
| 87 | 75 | 79 | .079 | .35 | 82.7 | cldy |
| 87 | 76 | 78 | .050 | .06 | 83.1 | " |
| 88 | 74 | 80 | .118 | 0 | 83.2 | " |
| 89 | 76 | 78 | .079 | .21 | 82.8 | " |
| 88 | 75 | 80 | .079 | .02 | 81.7 | " |
| 86 | 76 | 80 | .079 | 0 | 82.3 | " |
| 92 | 76 | 82 | .098 | T | 84.1 | pt cldy |
| 90 | 77 | 82 | .098 | 1.64 | 82.8 | cldy |
| 78 | 74 | 76 | .079 | .59 | 80.9 | " |
| 86 | 72 | 79 | .040 | 0 | 82.6 | pt cldy |
| 88 | 75 | 79 | .079 | T | 83.6 | cldy |
| 86 | 75 | 79 | .079 | T | 82.8 | " |
| 86 | 73 | 78 | .114 | .03 | 82.9 | pt cldy |
| 85 | 75 | 77 | .083 | .31 | 84.1 | cldy |
| 83 | 72 | 77 | .098 | .01 | 84.2 | pt cldy |
| 84 | 75 | 78 | .089 | .23 | 83.2 | cldy |
| 84 | 73 | 78 | .118 | .24 | 81.8 | " |
| 85 | 73 | 79 | .119 | 0 | 81.4 | " |
| 85 | 77 | 80 | .118 | 0 | 81.8 | " |
| 84 | 75 | 78 | .118 | 0 | 83.2 | " |
| 84 | 74 | 79 | .078 | 0 | 83.2 | " |
| 867 | 2235 | * - | 2.742 | 4.67 | * - | |
| 84.2 | 74.[illegible] | 78.[illegible] | .091 | - | 82.8 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.802; highest 29.930 date 23

Lowest 29.650 date 16

**TEMPERATURE**

Highest 92 date 17; lowest 71 date 9

Greatest daily range 17 date 9

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.5 | 1915 79.1 | 1924 78.0 | 1933 78.4 |
| 1907 78.5 | 1916 77.6 | 1925 78.0 | 1934 79.0 |
| 1908 78.7 | 1917 77.6 | 1926 79.0 | 1935 78.9 |
| 1909 78.2 | 1918 78.9 | 1927 77.7 | 1936 |
| 1910 77.8 | 1919 78.2 | 1928 78.9 | 1937 |
| 1911 79.0 | 1920 78.5 | 1929 77.9 | 1938 |
| 1912 78.0 | 1921 78.5 | 1930 79.7 | 1939 |
| 1913 78.5 | 1922 78.1 | 1931 78.7 | 1940 |
| 1914 78.5 | 1923 78.8 | 1932 78.7 | 1941 |

Mean of this month for 30 years 78.5

Absolute maximum for this month for 30 years 94

Absolute minimum for this month for 30 years 68

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 30 years +0.4

**EVAPORATION**

Total this month 2.742 Average daily .091 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.15 date 17 & 18

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1888 9.02 | 1899 6.15 | 1913 11.45 | 1927 6.53 |
| 1889 7.91 | 1900 7.76 | 1914 9.60 | 1928 10.44 |
| 1890 8.94 | 1901 15.06 | 1915 3.69 | 1929 9.26 |
| 1891 4.05 | 1902 - | 1916 8.02 | 1930 7.61 |
| 1892 | 1903 | 1917 11.55 | 1931 11.09 |
| 1893 | 1904 | 1918 7.03 | 1932 7.23 |
| 1894 | 1905 7.46 | 1919 10.84 | 1933 5.18 |
| 1895 | 1906 4.83 | 1920 9.14 | 1934 16.38 |
| 1896 | 1907 11.14 | 1921 3.27 | 1935 4.70 |
| 1897 | 1908 5.93 | 1922 8.18 | 1936 |
| 1898 7.94 | 1909 3.86 | 1923 4.60 | 1937 |
| | 1910 4.84 | 1924 12.55 | 1938 |
| | 1911 6.03 | 1925 9.01 | 1939 |
| | 1912 8.28 | 1926 8.41 | 1940 |

Average of this month for 39 years 8.08

Total from January 1, 1935 to date 48.55

Average from January 1, to date 44.75

Excess (+) ~~or deficiency~~ (—) from January 1, 1935 to date as compared with average of corresponding period +3.82

**WIND**

Prevailing direction NW Total movement 4522 miles

Average hourly velocity 6.3 miles per hour

Maximum velocity (for five minutes) 28 miles per hour

from S on 27

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 10 Cloudy 20

Days on which .01 inch, or more, of rain occurred

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 3-4-5-6-7-10-11-17.

Earthquakes 1-5-12-13-15-17-19-21-24-26-27-28.

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month October, 1935.

| TEMPERATURE (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 86 | 75 | 78 | .079 | .41 | 82.8 | cldy |
| 86 | 74 | 79 | .118 | .18 | 83.2 | pt cldy |
| 82 | 75 | 77 | .079 | .17 | 82.7 | cldy |
| 84 | 75 | 79 | .059 | 1.11 | 82.8 | " |
| 84 | 73 | 78 | .099 | .24 | 83.8 | pt cldy |
| 86 | 73 | 79 | .079 | 0 | 84.2 | " |
| 89 | 73 | 80 | .079 | 0 | 83.8 | " |
| 86 | 73 | 79 | .157 | 0 | 83.9 | " |
| 84 | 73 | 78 | .146 | .06 | 83.0 | cldy |
| 86 | 74 | 78 | .106 | .30 | 83.4 | pt cldy |
| 90 | 74 | 80 | .044 | .03 | 83.5 | pt cldy |
| 83 | 74 | 77 | .118 | 1.56 | 81.8 | cldy |
| 87 | 73 | 79 | .067 | .04 | 82.4 | pt cldy |
| 84 | 74 | 78 | .114 | .71 | 83.0 | cldy |
| 86 | 73 | 78 | .056 | .05 | 83.8 | pt cldy |
| 84 | 72 | 76 | .079 | 0 | 83.9 | cldy |
| 84 | 72 | 77 | .078 | .03 | 83.0 | " |
| 86 | 72 | 78 | .090 | .04 | 83.5 | pt cldy |
| 84 | 76 | 78 | .079 | .38 | 81.8 | cldy |
| 80 | 73 | 78 | .118 | .08 | 80.2 | cldy |
| 85 | 74 | 79 | .118 | .70 | 81.3 | pt cldy |
| 84 | 74 | 78 | .079 | .49 | 82.6 | " |
| 85 | 73 | 77 | .078 | .37 | 82.7 | " |
| 86 | 72 | 80 | .099 | 0 | 82.8 | " |
| 85 | 73 | 80 | .138 | 0 | 82.7 | " |
| 85 | 76 | 80 | .118 | .20 | 82.8 | " |
| 84 | 77 | 80 | .118 | 0 | 82.8 | " |
| 84 | 74 | 78 | .221 | .01 | 82.7 | " |
| 84 | 73 | 77 | .067 | 3.41 | 81.3 | cldy |
| 85 | 72 | 79 | .090 | 0 | 81.9 | pt cldy |
| 83 | 73 | 78 | .067 | .26 | 83.2 | cldy |
| 2628 | 2289 | * - | 3.064 | 10.73 | * - | |
| 84.8 | 73.8 | 78.4 | .099 | - | 82.8 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly) Mean 29.806; highest 29.960 date 10th; Lowest 29.670 date 7th

**TEMPERATURE**

Highest 90 date 11th; lowest 72 date 24th; Greatest daily range 16 date 11th

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 78.0 | 1915 77.8 | 1924 77.6 | 1933 78.8 |
| 1907 77.5 | 1916 78.8 | 1925 78.4 | 1934 77.2 |
| 1908 77.8 | 1917 77.1 | 1926 78.8 | 1935 78.4 |
| 1909 77.5 | 1918 77.7 | 1927 78.1 | 1936 |
| 1910 77.2 | 1919 78.1 | 1928 78.2 | 1937 |
| 1911 77.9 | 1920 77.8 | 1929 77.8 | 1938 |
| 1912 77.2 | 1921 77.5 | 1930 78.2 | 1939 |
| 1913 78.3 | 1922 77.8 | 1931 78.8 | 1940 |
| 1914 78.0 | 1923 77.7 | 1932 78.1 | 1941 |

Mean of this month for 30 years 77.8

Absolute maximum for this month for 30 years 95

Absolute minimum for this month for 30 years 68

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 30 years +0.6

**EVAPORATION**

Total this month 3.064 Average daily .099 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 5.42 date 28 & 29

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1879 9.80 | 1899 11.99 | 1913 8.30 | 1927 8.36 |
| 1880 11.81 | 1900 20.27 | 1914 6.44 | 1928 10.70 |
| 1881 9.68 | 1901 13.77 | 1915 10.49 | 1929 7.59 |
| 1882 6.69 | 1902 | 1916 10.17 | 1930 8.24 |
| 1883 | 1903 | 1917 5.14 | 1931 9.25 |
| 1884 | 1904 | 1918 2.16 | 1932 11.60 |
| 1885 | 1905 8.49 | 1919 12.11 | 1933 5.86 |
| 1886 | 1906 4.38 | 1920 6.48 | 1934 11.44 |
| 1887 | 1907 9.36 | 1921 13.06 | 1935 10.73 |
| 1888 | 1908 8.79 | 1922 9.05 | 1936 |
| 1889 | 1909 8.77 | 1923 15.02 | 1937 |
| 1890 | 1910 6.86 | 1924 10.38 | 1938 |
| 1891 | 1911 10.90 | 1925 7.37 | 1939 |
| 1892 | 1912 17.89 | 1926 9.95 | 1940 |
| 1893 | | | |
| 1894 | | | |
| 1895 | | | |
| 1896 | | | |
| 1897 | | | |
| 1898 15.48 | | | |

Average of this month for 59 years 10.15

Total from January 1, 1935 to date 59.22

Average from January 1, to date 54.85

Excess (+) or deficiency (—) from January 1, 1935 to date as compared with average of corresponding period +4.45

**WIND**

Prevailing direction S Total movement 4496 miles

Average hourly velocity 5.0 miles per hour

Maximum velocity (for five minutes) 23 miles per hour from S on 25th

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 19 Cloudy 12

Days on which .01 inch, or more, of rain occurred 23

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light 1st

Fogs: Dense 15th

Thunderstorms 3, 4, 5, 6, 8, 9, 10, 14, 18, 20, 21, 22

Earthquakes 24, 26, 27, 28, 30

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C.Z. ; Month NOVEMBER, 1935.

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a. m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 87 | 73 | 78 | .075 | .91 | 82.8 | ptcldy |
| 83 | 74 | 77 | .086 | .51 | 82.0 | cldy |
| 84 | 73 | 77 | .028 | .58 | 81.4 | cldy |
| 88 | 74 | 79 | .126 | 0 | 81.8 | ptcldy |
| 87 | 73 | 79 | .079 | .04 | 82.0 | " |
| 87 | 74 | 79 | .118 | T | 81.0 | " |
| 88 | 74 | 78 | .118 | 1.14 | 81.6 | " |
| 85 | 74 | 78 | .079 | .07 | 80.4 | " |
| 86 | 75 | 77 | .078 | 1.31 | 80.6 | cldy |
| 88 | 72 | 78 | .079 | .21 | 80.9 | " |
| 88 | 74 | 78 | .079 | 1.24 | 80.7 | " |
| 84 | 75 | 78 | .059 | .31 | 80.5 | " |
| 82 | 73 | 76 | .098 | .39 | 80.3 | " |
| 84 | 74 | 78 | .059 | .11 | 80.3 | " |
| 79 | 72 | 75 | .071 | 2.20 | 78.8 | " |
| 79 | 72 | 76 | .047 | .89 | 78.9 | " |
| 75 | 73 | 74 | .044 | 1.40 | 78.1 | " |
| 78 | 72 | 74 | .035 | .54 | 78.4 | " |
| 81 | 73 | 75 | .039 | .57 | 78.7 | " |
| 85 | 72 | 77 | .040 | .16 | 79.2 | " |
| 82 | 73 | 76 | .118 | .22 | 79.0 | " |
| 81 | 72 | 74 | .039 | 3.71 | 77.3 | " |
| 82 | 72 | 75 | .039 | .48 | 77.1 | " |
| 82 | 72 | 77 | .030 | 2.21 | 78.7 | ptcldy |
| 83 | 73 | 77 | .079 | .06 | 79.0 | " |
| 84 | 70 | 78 | .079 | 0 | 80.4 | " |
| 86 | 71 | 77 | .118 | .12 | 80.2 | " |
| 91 | 72 | 80 | .079 | 0 | 80.8 | " |
| 87 | 74 | 79 | .118 | .04 | 80.8 | " |
| 84 | 74 | 78 | .118 | .28 | 80.6 | cldy |
| 2520 | 2189 | * - | 2.254 | 19.70 | * - | |
| 84.0 | 73.0 | 77.0 | .075 | - | 80.1 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.824; highest 29.975 date 25

Lowest 29.700 date 5

**TEMPERATURE**

Highest 91 date 28; lowest 70 date 26

Greatest daily range 19 date 28

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 77.7 | 1915 76.9 | 1924 76.7 | 1933 76.5 |
| 1907 77.7 | 1916 76.5 | 1925 78.6 | 1934 76.9 |
| 1908 76.9 | 1917 76.1 | 1926 77.7 | 1935 77.0 |
| 1909 75.7 | 1918 78.2 | 1927 78.3 | 1936 |
| 1910 77.3 | 1919 77.4 | 1928 76.9 | 1937 |
| 1911 77.6 | 1920 78.2 | 1929 78.3 | 1938 |
| 1912 77.1 | 1921 78.5 | 1930 79.2 | 1939 |
| 1913 77.4 | 1922 77.0 | 1931 76.4 | 1940 |
| 1914 78.0 | 1923 78.6 | 1932 77.3 | 1941 |

Mean of this month for 30 years 77.4

Absolute maximum for this month for 30 years 94

Absolute minimum for this month for 30 years 67

Average daily ~~excess (+) or~~ deficiency (—) of this month as compared with mean of 30 years -0.4

**EVAPORATION**

Total this month 2.254 Average daily .075 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 3.73 date 22 & 23

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1887 9.19 21 | 1899 8.93 | 1913 10.63 | 1927 5.82 |
| 1888 6.46 | 1900 13.01 | 1914 10.35 | 1928 20.51 |
| 1889 9.72 | 1901 12.40 | 1915 7.05 | 1929 12.62 |
| 1890 10.91 | 1902 | 1916 8.77 | 1930 5.12 |
| 1889 | 1903 | 1917 13.77 | 1931 12.60 |
| 1890 | 1904 | 1918 9.61 | 1932 10.18 |
| 1891 | 1905 8.81 | 1919 4.97 | 1933 13.28 |
| 1892 | 1906 13.57 | 1920 19.22 | 1934 12.89 |
| 1893 | 1907 10.51 | 1921 7.11 | 1935 19.70 |
| 1894 | 1908 9.12 | 1922 8.44 | 1936 |
| 1895 | 1909 15.14 | 1923 8.81 | 1937 |
| 1896 | 1910 4.29 | 1924 12.63 | 1938 |
| 1897 | 1911 7.57 | 1925 3.52 | 1939 |
| 1898 11.13 | 1912 6.38 | 1926 9.63 | 1940 |

Average of this month for 39 years 10.63

Total from January 1, 19 to date 78.98

Average from January 1, to date 65.46

~~Excess (+) or~~ deficiency (—) from January 1, 19 35 to date as compared with average of corresponding period +13.52

**WIND**

Prevailing direction NW Total movement 4481 miles

Average hourly velocity 6.2 miles per hour

Maximum velocity (for five minutes) 24 miles per hour

from NW on 18

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 12 Cloudy 18

Days on which .01 inch, or more, of rain occurred 26

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar none

Fogs: Light none

Fogs: Dense none

Thunderstorms 1, 2, 11

Earthquakes 2, 3, 5, 8, 10, 11, 13, 14, 16, 17, 23, 27, 28, 29, 30

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

066-6

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month December, 1935

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 74 | 80 | .098 | 0 | 80.5 | pt cldy |
| 2 | 82 | 74 | 77 | .059 | .85 | 81.2 | cldy |
| 3 | 80 | 74 | 76 | .118 | .44 | 79.8 | cldy |
| 4 | 82 | 74 | 76 | .040 | .40 | 79.0 | cldy |
| 5 | 81 | 74 | 76 | .039 | 1.90 | 78.5 | cldy |
| 6 | 89 | 73 | 79 | .030 | 0 | 79.1 | pt cldy |
| 7 | 89 | 73 | 80 | .118 | 0 | 79.9 | pt cldy |
| 8 | 88 | 73 | 80 | .174 | .11 | 80.8 | " |
| 9 | 86 | 74 | 79 | .079 | .83 | 81.2 | cldy |
| 10 | 88 | 74 | 78 | .141 | T | 81.4 | pt cldy |
| 11 | 85 | 74 | 78 | .091 | .31 | 81.5 | cldy |
| 12 | 86 | 73 | 79 | .118 | 0 | 81.5 | cldy |
| 13 | 88 | 74 | 80 | .102 | 0 | 82.0 | pt cldy |
| 14 | 88 | 74 | 79 | .158 | T | 81.8 | " |
| 15 | 85 | 73 | 78 | .209 | 0 | 81.3 | " |
| 16 | 87 | 72 | 78 | .165 | 0 | 81.2 | " |
| 17 | 88 | 72 | 78 | .220 | 0 | 80.5 | " |
| 18 | 87 | 71 | 78 | .178 | 0 | 80.7 | " |
| 19 | 88 | 73 | 79 | .165 | 0 | 80.2 | " |
| 20 | 87 | 72 | 78 | .256 | .06 | 79.6 | " |
| 21 | 85 | 72 | 78 | .200 | 0 | 78.6 | cldy |
| 22 | 85 | 72 | 78 | .182 | 0 | 78.4 | pt cldy |
| 23 | 87 | 71 | 77 | .141 | .01 | 78.5 | pt cldy |
| 24 | 87 | 71 | 78 | .150 | 0 | 78.6 | " |
| 25 | 87 | 71 | 77 | .114 | 0 | 79.2 | " |
| 26 | 86 | 72 | 78 | .146 | 0 | 80.3 | " |
| 27 | 88 | 72 | 79 | .158 | 0 | 80.1 | " |
| 28 | 89 | 72 | 80 | .154 | 0 | 79.9 | clear |
| 29 | 88 | 74 | 79 | .130 | 0 | 80.2 | pt cldy |
| 30 | 88 | 72 | 78 | .355 | 0 | 79.6 | " |
| 31 | 89 | 73 | 80 | .248 | 0 | 79.9 | " |
| Sums | 2680 | 2257 | *78.5 | 4.531 | 4.31 | *80.2 | |
| Means | 86.5 | 72.8 | - | .146 | - | - | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.897; highest 29.950 date 21

Lowest 29.660 date 13

**TEMPERATURE**

Highest 89 date 6; lowest 71 date 25

Greatest daily range 17 date 28

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 77.4 | 1915 | 78.5 | 1924 | 77.7 | 1933 | 76.9 |
| 1907 | 79.1 | 1916 | 77.6 | 1925 | 79.5 | 1934 | 78.7 |
| 1908 | 77.6 | 1917 | 76.7 | 1926 | 77.7 | 1935 | 78.3 |
| 1909 | 78.6 | 1918 | 79.6 | 1927 | 78.6 | 1936 | |
| 1910 | 77.3 | 1919 | 78.4 | 1928 | 78.1 | 1937 | |
| 1911 | 79.3 | 1920 | 78.5 | 1929 | 78.3 | 1938 | |
| 1912 | 78.7 | 1921 | 78.3 | 1930 | 79.6 | 1939 | |
| 1913 | 78.5 | 1922 | 77.4 | 1931 | 78.5 | 1940 | |
| 1914 | 79.3 | 1923 | 78.2 | 1932 | 77.9 | 1941 | |

Mean of this month for 30 years 78.2

Absolute maximum for this month for 30 years 94

Absolute minimum for this month for 30 years 66

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 30 years +0.1

**EVAPORATION**

Total this month 4.531 Average daily .146 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.16 date 4 & 5

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | .98 | 1899 | 4.35 | 1913 | 4.84 | 1927 | 2.95 |
| 1880 | 5.51 | 1900 | 1.85 | 1914 | 8.28 | 1928 | 6.95 |
| 1881 | 2.48 | 1901 | 2.32 | 1915 | 3.60 | 1929 | 4.17 |
| 1882 | 2.01 | 1902 | - | 1916 | 5.86 | 1930 | 2.44 |
| 1889 | - | 1903 | - | 1917 | 4.09 | 1931 | 4.96 |
| 1890 | - | 1904 | - | 1918 | .55 | 1932 | 2.66 |
| 1891 | - | 1905 | 4.04 | 1919 | 1.81 | 1933 | 7.35 |
| 1892 | - | 1906 | 5.52 | 1920 | 1.94 | 1934 | 2.71 |
| 1893 | - | 1907 | 3.46 | 1921 | 5.19 | 1935 | 4.31 |
| 1894 | - | 1908 | 4.16 | 1922 | 3.82 | 1936 | - |
| 1895 | - | 1909 | 12.09 | 1923 | 3.94 | 1937 | - |
| 1896 | - | 1910 | 10.63 | 1924 | 8.31 | 1938 | - |
| 1897 | - | 1911 | 1.99 | 1925 | 1.88 | 1939 | - |
| 1898 | 1.89 | 1912 | 3.27 | 1926 | 8.38 | 1940 | - |

Average of this month for 39 years 4.30

Total from January 1, 1935 to date 83.89

Average from January 1, to date 69.76

Excess (+) or deficiency (—) from January 1, 1935 to date as compared with average of corresponding period +13.53

**WIND**

Prevailing direction NW Total movement 5154 miles

Average hourly velocity 6.9 miles per hour

Maximum velocity (for five minutes) 22 miles per hour

from N on 20

**(WEATHER No. of days)**

Clear 1 Pt. Cloudy 22 Cloudy 8

Days on which .01 inch, or more, of rain occurred 9

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms None

Earthquakes Total 20

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

4066-6

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month JANUARY, 1936

| Date | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 73 | 79 | .224 | 0 | 80.2 | Pt Cldy |
| 2 | 87 | 72 | 79 | .213 | 0 | 79.8 | Pt Cldy |
| 3 | 88 | 71 | 79 | .193 | 0 | 80.2 | Pt Cldy |
| 4 | 89 | 70 | 78 | .271 | 0 | 80.0 | Clear |
| 5 | 89 | 70 | 78 | .205 | 0 | 80.2 | Pt Cldy |
| 6 | 88 | 70 | 78 | .272 | 0 | 79.6 | Pt Cldy |
| 7 | 88 | 69 | 78 | .220 | 0 | 79.2 | Pt Cldy |
| 8 | 88 | 71 | 79 | .185 | 0 | 78.8 | Clear |
| 9 | 89 | 71 | 78 | .256 | 0 | 79.2 | Pt Cly |
| 10 | 89 | 70 | 78 | .256 | 0 | 79.5 | Pt Cldy |
| 11 | 88 | 71 | 78 | .228 | 0 | 79.6 | Pt Cldy |
| 12 | 85 | 71 | 78 | .197 | 0 | 79.8 | Pt Cldy |
| 13 | 88 | 71 | 78 | .244 | .64 | 80.2 | Pt Cldy |
| 14 | 89 | 72 | 79 | .138 | .17 | 79.8 | Pt Cldy |
| 15 | 89 | 73 | 80 | .134 | 0 | 79.4 | Pt Cldy |
| 16 | 90 | 73 | 80 | .185 | .02 | 79.6 | Pt Cldy |
| 17 | 88 | 73 | 80 | .201 | 0 | 79.6 | Pt Cldy |
| 18 | 88 | 73 | 80 | .209 | 0 | 79.4 | Pt Cldy |
| 19 | 88 | 73 | 79 | .177 | 0 | 79.7 | Pt Cldy |
| 20 | 88 | 73 | 80 | .272 | 0 | 78.2 | Pt Cldy |
| 21 | 89 | 73 | 80 | .260 | 0 | 76.7 | Clear |
| 22 | 88 | 72 | 79 | .279 | 0 | 78.1 | Pt Cldy |
| 23 | 88 | 74 | 79 | .228 | T | 77.4 | Pt Cldy |
| 24 | 89 | 73 | 80 | .201 | 0 | 77.8 | Pt Cldy |
| 25 | 88 | 73 | 79 | .268 | 0 | 78.1 | Pt Cldy |
| 26 | 90 | 73 | 80 | .216 | 0 | 78.4 | Pt Cldy |
| 27 | 88 | 73 | 79 | .252 | 0 | 78.6 | Pt Cldy |
| 28 | 88 | 73 | 79 | .205 | 0 | 78.6 | Pt Cldy |
| 29 | 88 | 74 | 81 | .220 | 0 | 78.1 | Pt Cldy |
| 30 | 91 | 74 | 81 | .292 | 0 | 77.9 | Clear |
| 31 | 89 | 74 | 80 | .260 | 0 | 76.7 | Pt Cldy |
| Total | 740 | 2236 | * | 7.169 | .85 | * | |
| Mean | 88.1 | 72.1 | 79.1 | .231 | — | 78.9 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)
(Bi-hourly)
Mean 29.799; highest 29.920 date 11th
Lowest 29.640 date 30th

**TEMPERATURE**
Highest 91 date 30; lowest 69 date 7
Greatest daily range 19 date 7
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.0 | 1915 | 79.6 | 1924 | 78.8 | 1933 | 77.9 |
| 1907 | 78.1 | 1916 | 78.4 | 1925 | 76.9 | 1934 | 77.2 |
| 1908 | 79.4 | 1917 | 78.7 | 1926 | 79.3 | 1935 | 78.1 |
| 1909 | 77.4 | 1918 | 76.9 | 1927 | 78.5 | 1936 | 79.1 |
| 1910 | 77.1 | 1919 | 78.8 | 1928 | 78.6 | 1937 | |
| 1911 | 78.2 | 1920 | 78.9 | 1929 | 77.8 | 1938 | |
| 1912 | 78.9 | 1921 | 78.2 | 1930 | 78.2 | 1939 | |
| 1913 | 78.8 | 1922 | 78.5 | 1931 | 79.5 | 1940 | |
| 1914 | 78.5 | 1923 | 77.1 | 1932 | 78.4 | 1941 | |

Mean of this month for 31 years 78.5
Absolute maximum for this month for 31 years 85
Absolute minimum for this month for 31 years 68
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 31 years + 0.8

**EVAPORATION**
Total this month 7.169 Average daily .231 inches

**PRECIPITATION**
Greatest precipitation in 24 hours .64 date 13
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1882 | .04 | 1899 | 5.61 | 1913 | .65 | 1927 | .18 |
| 1880 | 1.69 | 1900 | .76 | 1914 | .52 | 1928 | .02 |
| 1887 | .16 | 1901 | 0 | 1915 | 2.12 | 1929 | .17 |
| 1888 | 0 | 1902 | — | 1916 | 1.41 | 1930 | .06 |
| 1889 | — | 1903 | — | 1917 | .15 | 1931 | T |
| 1890 | — | 1904 | — | 1918 | 1.78 | 1932 | .36 |
| 1891 | — | 1905 | — | 1919 | .28 | 1933 | 1.53 |
| 1892 | — | 1906 | .45 | 1920 | T | 1934 | .04 |
| 1893 | — | 1907 | .29 | 1921 | .88 | 1935 | .90 |
| 1894 | — | 1908 | .12 | 1922 | 1.75 | 1936 | .85 |
| 1895 | — | 1909 | 2.90 | 1923 | .80 | 1937 | |
| 1896 | — | 1910 | 1.22 | 1924 | T | 1938 | |
| 1897 | — | 1911 | .83 | 1925 | 1.44 | 1939 | |
| 1898 | — | 1912 | T | 1926 | .01 | 1940 | |

Average of this month for 38 years .89
Total from January 1, 1936 to date .85
Average from January 1, to date .89
Excess (+) or deficiency (—) from January 1, 1936 to date as compared with average of corresponding period - .04

**WIND**
Prevailing direction N W Total movement 6591 miles
Average hourly velocity 8.6 miles per hour
Maximum velocity (for five minutes) 24 miles per hour
from N W on 29

**(WEATHER No. of days)**
Clear 4 Pt. Cloudy 27 Cloudy 0
Days on which .01 inch, or more, of rain occurred 5

**MISCELLANEOUS PHENOMENA** (DATES OF)
Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms None
Earthquakes 4, 5, 8, 9, 10, 14, 17, 19, 20, 22, 23, 26, 27, 28, 31

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month February, 1936, 193

| Date | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 74 | 80 | .228 | 0 | 74.8 | pt.cldy |
| 2 | 84 | 75 | 79 | .315 | 0 | 73.8 | pt.cldy |
| 3 | 87 | 74 | 79 | .236 | 0 | 72.2 | pt.cldy |
| 4 | 87 | 72 | 79 | .268 | 0 | 72.2 | clear |
| 5 | 89 | 72 | 79 | .272 | 0 | 70.8 | pt.cldy |
| 6 | 88 | 71 | 78 | .201 | 0 | 71.1 | pt.cldy |
| 7 | 90 | 71 | 79 | .236 | 0 | 70.5 | clear |
| 8 | 90 | 71 | 80 | .189 | 0 | 70.2 | pt.cldy |
| 9 | 90 | 72 | 79 | .212 | 0 | 71.8 | pt.cldy |
| 10 | 92 | 71 | 79 | .201 | 0 | 73.6 | clear |
| 11 | 89 | 70 | 77 | .240 | 0 | 72.9 | pt.cldy |
| 12 | 85 | 67 | 75 | .217 | 0 | 73.4 | pt.cldy |
| 13 | 89 | 68 | 77 | .177 | 0 | 74.2 | clear |
| 14 | 90 | 67 | 79 | .157 | 0 | 74.7 | clear |
| 15 | 91 | 67 | 78 | .181 | 0 | 75.0 | clear |
| 16 | 90 | 69 | 78 | .162 | 0 | 75.5 | clear |
| 17 | 93 | 68 | 79 | .256 | 0 | 74.4 | clear |
| 18 | 89 | 69 | 78 | .268 | 0 | 75.9 | clear |
| 19 | 87 | 70 | 79 | .224 | T | 76.2 | pt.cldy |
| 20 | 88 | 71 | 79 | .217 | 0 | 75.5 | clear |
| 21 | 90 | 71 | 80 | .299 | 0 | 75.3 | clear |
| 22 | 90 | 70 | 79 | .295 | 0 | 74.8 | clear |
| 23 | 90 | 71 | 80 | .378 | 0 | 74.5 | clear |
| 24 | 90 | 71 | 80 | .382 | 0 | 75.4 | pt.cldy |
| 25 | 90 | 72 | 80 | .307 | 0 | 76.2 | pt.cldy |
| 26 | 88 | 72 | 80 | .240 | 0 | 77.1 | pt.cldy |
| 27 | 92 | 71 | 80 | .201 | 0 | 77.7 | pt.cldy |
| 28 | 90 | 72 | 79 | .323 | 0 | 78.7 | pt.cldy |
| 29 | 92 | 71 | 79 | .252 | 0 | 78.8 | clear |
| | | | | | 0 | | |
| | 2589 | 2060 | * - | 7.134 | T | * - | |
| | 89.3 | 70.7 | 78.9 | .246 | - | 74.4 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.854; highest 30.010 date 12

Lowest 29.700 date 4th

**TEMPERATURE**

Highest 93 date 17; lowest 67 date 12

Greatest daily range 25 date 17

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.4 | 1915 | 79.4 | 1924 | 78.5 | 1933 | 78.3 |
| 1907 | 76.7 | 1916 | 77.6 | 1925 | 77.1 | 1934 | 77.1 |
| 1908 | 79.9 | 1917 | 76.4 | 1926 | 80.0 | 1935 | 78.1 |
| 1909 | 78.4 | 1918 | 78.1 | 1927 | 77.9 | 1936 | 78.9 |
| 1910 | 77.5 | 1919 | 77.9 | 1928 | 80.0 | 1937 | |
| 1911 | 77.9 | 1920 | 76.8 | 1929 | 78.8 | 1938 | |
| 1912 | 79.3 | 1921 | 78.1 | 1930 | 78.3 | 1939 | |
| 1913 | 78.5 | 1922 | 79.7 | 1931 | 79.8 | 1940 | |
| 1914 | 80.0 | 1923 | 77.9 | 1932 | 78.3 | 1941 | |

Mean of this month for 31 years 78.5

Absolute maximum for this month for 31 years 93

Absolute minimum for this month for 31 years 65

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 31 years + 0.4

**EVAPORATION**

Total this month 7.134 Average daily .246 inches

**PRECIPITATION**

Greatest precipitation in 24 hours T date 19

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 2.52 | 1899 | 1.17 | 1913 | .22 | 1927 | 1.99 |
| 1880 | .12 | 1900 | 0 | 1914 | .02 | 1928 | .32 |
| 1881 | .15 | 1901 | 1.11 | 1915 | 2.96 | 1929 | .02 |
| 1882 | .12 | 1902 | | 1916 | 1.48 | 1930 | .85 |
| 1889 | | 1903 | | 1917 | .19 | 1931 | T |
| 1890 | | 1904 | | 1918 | T | 1932 | .46 |
| 1891 | | 1905 | | 1919 | T | 1933 | .30 |
| 1892 | | 1906 | .33 | 1920 | T | 1934 | .07 |
| 1893 | | 1907 | .04 | 1921 | 2.37 | 1935 | .36 |
| 1894 | | 1908 | .24 | 1922 | 2.03 | 1936 | T |
| 1895 | | 1909 | 2.90 | 1923 | T | 1937 | |
| 1896 | | 1910 | .43 | 1924 | .05 | 1938 | |
| 1897 | | 1911 | 2.75 | 1925 | .07 | 1939 | |
| 1898 | | 1912 | .08 | 1926 | .07 | 1940 | |

Average of this month for 36 years .68

Total from January 1, 19 to date .83

Average from January 1, to date 1.57

Excess (+) or deficiency (—) from January 1, 19 36 to date as compared with average of corresponding period

**WIND**

Prevailing direction NW Total movement 5692 miles

Average hourly velocity 8.2 miles per hour

Maximum velocity (for five minutes) 27 miles per hour from NW on 4th

**(WEATHER No. of days)**

Clear 14 Pt. Cloudy 15 Cloudy 0

Days on which .01 inch, or more, of rain occurred 0

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light 18th

Fogs: Dense None

Thunderstorms None

Earthquakes 1, 2, 3, 6, 8, 11, 15, 18, 21, 24, 26 & 27

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month March, 1936

| | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 69 | 78 | .303 | 0 | 78.8 | Clear |
| 2 | 88 | 68 | 77 | .271 | 0 | 78.3 | Pt.Cldy |
| 3 | 90 | 69 | 78 | .193 | 0 | 77.2 | Pt.Cldy |
| 4 | 89 | 70 | 79 | .268 | 0 | 76.6 | Pt.Cldy |
| 5 | 90 | 74 | 80 | .255 | 0 | 75.6 | Pt.Cldy |
| 6 | 89 | 75 | 80 | .355 | 0 | 75.0 | Pt.Cldy |
| 7 | 90 | 73 | 80 | .354 | 0 | 74.0 | Pt.Cldy |
| 8 | 91 | 72 | 79 | .276 | T | 74.8 | Pt. Cldy |
| 9 | 88 | 73 | 79 | .236 | .36 | 75.3 | Pt.Cldy |
| 10 | 90 | 73 | 79 | .118 | 0 | 76.0 | Pt. Cldy |
| 11 | 91 | 74 | 81 | .197 | 0 | 75.9 | Pt.Cldy |
| 12 | 93 | 76 | 82 | .334 | 0 | 74.8 | Pt.Cldy |
| 13 | 31 | 75 | 81 | .335 | 0 | 73.3 | Pt.Cldy |
| 14 | 90 | 74 | 81 | .339 | 0 | 73.6 | Pt.Cldy |
| 15 | 91 | 74 | 81 | .370 | 0 | 73.9 | Pt.Cldy |
| 16 | 90 | 74 | 80 | .291 | 0 | 74.9 | Cloudy |
| 17 | 93 | 2 | 80 | .238 | 0 | 74.9 | Clear |
| 18 | 91 | 73 | 80 | .280 | 0 | 74.3 | Pt.Cldy |
| 19 | 90 | 75 | 82 | .220 | 0 | 74.1 | Pt.Cldy |
| 20 | 92 | 75 | 82 | .311 | 0 | 73.9 | Pt.Cldy |
| 21 | 92 | 75 | 81 | .276 | T | 74.7 | Pt.Cldy |
| 22 | 89 | 75 | 81 | .236 | 0 | 75.2 | Pt.Cldy |
| 23 | 91 | 74 | 81 | .276 | 0 | 76.2 | Pt.Cldy |
| 24 | 92 | 75 | 82 | .299 | 0 | 76.8 | Pt.Cldy |
| 25 | 91 | 74 | 81 | .346 | 0 | 77.5 | Pt.Cldy |
| 26 | 91 | 72 | 80 | .295 | 0 | 77.8 | Pt.Cldy |
| 27 | 91 | 71 | 80 | .256 | 0 | 77.3 | Pt.Cldy |
| 28 | 90 | 72 | 80 | .209 | 0 | 77.5 | Pt.Cldy |
| 29 | 88 | 72 | 79 | .161 | T | 77.2 | Pt.Cldy |
| 30 | 89 | 74 | 80 | .225 | T | 76.9 | Cloudy |
| 31 | 89 | 74 | 80 | .213 | 0 | 78.2 | Pt.Cldy |
| | 2799 | 2264 | * | 8.336 | .36 | * | |
| | 90.3 | 73.1 | 80.1 | 0.269 | | 75.8 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.823; highest 29.940 date 1st

Lowest 29.720 date 18th

**TEMPERATURE**

Highest 93 date 13th lowest 68 date 2nd

Greatest daily range 21 date 3rd

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1905 80.2 | 1915 81.4 | 1924 79.9 | 1933 79.5 |
| 1907 79.3 | 1916 79.0 | 1925 78.1 | 1934 78.8 |
| 1908 80.5 | 1917 78.8 | 1926 80.6 | 1935 80.3 |
| 1909 79.8 | 1918 78.0 | 1927 80.3 | 1936 80.1 |
| 1910 77.5 | 1919 79.6 | 1928 80.4 | 1937 |
| 1911 78.3 | 1920 80.0 | 1929 79.4 | 1938 |
| 1912 81.1 | 1921 79.5 | 1930 80.5 | 1939 |
| 1913 80.1 | 1922 79.7 | 1931 81.5 | 1940 |
| 1914 80.8 | 1923 79.8 | 1932 79.7 | 1941 |

Mean of this month for 31 years 79.7

Absolute maximum for this month for 31 years 96

Absolute minimum for this month for 31 years 65

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 51 years +0.4

**EVAPORATION**

Total this month 8.336 Average daily 0.269 inches

**PRECIPITATION**

Greatest precipitation in 24 hours .36 date 9th

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1879 5.71 | 1899 2.41 | 1913 .43 | 1927 .01 |
| 1880 .16 | 1900 0 | 1914 T | 1928 4.07 |
| 1881 .35 | 1901 0 | 1915 T | 1929 2.19 |
| 1882 0 | 1902 — | 1916 .89 | 1930 .01 |
| 1889 — | 1903 — | 1917 .02 | 1931 .70 |
| 1890 — | 1904 — | 1918 1.25 | 1932 .13 |
| 1891 — | 1905 — | 1919 T | 1933 .46 |
| 1892 — | 1906 .05 | 1920 .09 | 1934 .20 |
| 1893 — | 1907 T | 1921 2.98 | 1935 T |
| 1894 — | 1908 .03 | 1922 1.02 | 1936 .36 |
| 1895 — | 1909 .18 | 1923 T | 1937 |
| 1896 | 1910 1.83 | 1924 .07 | 1938 |
| 1897 T | 1911 .26 | 1925 .07 | 1939 |
| 1898 — | 1912 .01 | 1926 0 | 1940 |

Average of this month for 38 years .68

Total from January 1, 19 36 to date 1.19

Average from January 1, to date 2.25

Excess (+) or deficiency (−) from January 1, 19 36 to date as compared with average of corresponding period −1.06

**WIND**

Prevailing direction NW Total movement 6665 miles

Average hourly velocity 9.0 miles per hour

Maximum velocity (for five minutes) 26 miles per hour

from N on 5th

**(WEATHER No. of days)**

Clear 2 Pt. Cloudy 27 Cloudy 2

Days on which .01 inch, or more, of rain occurred 1

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms None

Earthquakes 21 (Total)

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month April, 1936

| | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 72 | 80 | .141 | 0 | 79.2 | Pt.Cldy. |
| 2 | 89 | 73 | 80 | .205 | 0 | 79.5 | Pt.Cldy. |
| 3 | 88 | 75 | 81 | .181 | .05 | 79.4 | Cldy. |
| 4 | 90 | 75 | 81 | .162 | 0 | 79.8 | Pt.Cldy. |
| 5 | 91 | 76 | 81 | .271 | 0 | 79.6 | Pt.Cldy. |
| 6 | 93 | 73 | 82 | .319 | 0 | 80.3 | Pt.Cldy. |
| 7 | 91 | 75 | 82 | .390 | 0 | 80.3 | Clear |
| 8 | 91 | 72 | 81 | .370 | 0 | 80.2 | Pt.Cldy. |
| 9 | 90 | 74 | 80 | .275 | 0 | 79.5 | Pt.Cldy. |
| 10 | 91 | 72 | 80 | .343 | 0 | 78.6 | Pt.Cldy. |
| 11 | 89 | 74 | 81 | .409 | T | 77.5 | Pt.Cldy. |
| 12 | 87 | 75 | 80 | .350 | T | 76.2 | Cldy. |
| 13 | 91 | 75 | 81 | .177 | .05 | 75.7 | Cldy. |
| 14 | 92 | 74 | 80 | .154 | 1.29 | 74.8 | Cldy. |
| 15 | 94 | 74 | 82 | .051 | 0 | 76.2 | Pt.Cldy. |
| 16 | 92 | 75 | 82 | .213 | 0 | 76.2 | Pt.Cldy. |
| 17 | 91 | 75 | 82 | .173 | 0 | 75.8 | Pt.Cldy. |
| 18 | 91 | 75 | 81 | .260 | 0 | 76.2 | Pt.Cldy. |
| 19 | 89 | 78 | 82 | .248 | .01 | 76.8 | Pt.Cldy. |
| 20 | 92 | 76 | 81 | .189 | .24 | 77.1 | Cldy. |
| 21 | 90 | 76 | 82 | .209 | 0 | 78.1 | Pt.Cldy. |
| 22 | 92 | 76 | 83 | .220 | 0 | 79.2 | Pt.Cldy. |
| 23 | 92 | 75 | 82 | .236 | 0 | 80.4 | Pt.Cldy. |
| 24 | 90 | 75 | 81 | .233 | 0 | 80.8 | Pt.Cldy. |
| 25 | 91 | 74 | 82 | .220 | T | 80.5 | Pt.Cldy. |
| 26 | 90 | 74 | 81 | .252 | 0 | 80.7 | Pt.Cldy. |
| 27 | 90 | 73 | 81 | .264 | 0 | 79.9 | Clear. |
| 28 | 88 | 73 | 79 | .335 | T | 79.9 | Pt.Cldy. |
| 29 | 91 | 71 | 80 | .256 | 0 | 80.4 | Pt.Cldy. |
| 30 | 93 | 70 | 80 | .299 | 0 | 81.4 | Pt.Cldy. |
| | 2719 | 2225 | * - | 7.385 | 1.64 | * - | |
| | 90.6 | 74.2 | 81.0 | .246 | - | 78.7 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.831; highest 29.940 date 4th

Lowest 29.700 date 17th

**TEMPERATURE**

Highest 94 date 15th lowest 70 date 30th

Greatest daily range 23 date 30th

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 80.8 | 1915 79.4 | 1924 80.5 | 1933 80.5 |
| 1907 79.6 | 1916 79.7 | 1925 79.9 | 1934 80.5 |
| 1908 80.8 | 1917 78.9 | 1926 81.8 | 1935 80.4 |
| 1909 79.6 | 1918 79.0 | 1927 79.8 | 1936 81.0 |
| 1910 78.5 | 1919 80.1 | 1928 80.7 | 1937 |
| 1911 79.5 | 1920 81.1 | 1929 80.1 | 1938 |
| 1912 80.6 | 1921 79.8 | 1930 79.9 | 1939 |
| 1913 80.3 | 1922 81.6 | 1931 82.1 | 1940 |
| 1914 81.1 | 1923 79.8 | 1932 81.0 | 1941 |

Mean of this month for 31 years

Absolute maximum for this month for 31 years 97

Absolute minimum for this month for 31 years 64

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 31 years +0.7

**EVAPORATION**

Total this month 7.385 Average daily .246 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.29 date 14th

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1887 5.55 | 1899 0 | 1913 .03 | 1927 4.67 |
| 1888 1.61 | 1900 2.25 | 1914 4.80 | 1928 3.38 |
| 1889 5.23 | 1901 .25 | 1915 5.37 | 1929 .43 |
| 1890 .98 | 1902 - | 1916 2.84 | 1930 6.78 |
| 1891 - | 1903 - | 1917 2.24 | 1931 1.45 |
| 1892 - | 1904 - | 1918 4.52 | 1932 7.56 |
| 1893 - | 1905 - | 1919 6.43 | 1933 3.46 |
| 1894 - | 1906 7.77 | 1920 3.02 | 1934 5.09 |
| 1895 - | 1907 T | 1921 1.19 | 1935 2.40 |
| 1896 - | 1908 1.37 | 1922 .16 | 1936 1.64 |
| 1897 - | 1909 2.92 | 1923 .83 | 1937 |
| 1898 - | 1910 3.71 | 1924 3.72 | 1938 |
| | 1911 6.34 | 1925 2.63 | 1939 |
| | 1912 2.68 | 1926 .08 | 1940 |

Average of this month for 38 years 2.98

Total from January 1, 19 36 to date 2.83

Average from January 1, to date 5.23

Excess (+) or deficiency (−) from January 1, 19 36 to date as compared with average of corresponding period −2.40

**WIND**

Prevailing direction NW Total movement 6459 miles

Average hourly velocity 9.0 miles per hour

Maximum velocity (for five minutes) 25 miles per hour

from N on 11

**(WEATHER No. of days)**

Clear 2 Pt. Cloudy 23 Cloudy 5

Days on which .01 inch, or more, of rain occurred 5

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 3, 14 & 24

Earthquakes Total 20

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month MAY, 1936

| Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 92 | 73 | 81 | .370 | 0 | 82.0 | PtCldy |
| 92 | 75 | 82 | .295 | .01 | 80.8 | PtCldy |
| 91 | 76 | 82 | .221 | 0 | 80.2 | PtCldy |
| 83 | 74 | 77 | .287 | .25 | 78.9 | Cldy |
| 82 | 75 | 76 | .096 | 1.46 | 78.1 | Cldy |
| 83 | 74 | 77 | .075 | .01 | 78.3 | PtCldy |
| 87 | 74 | 78 | .103 | .03 | 78.8 | PtCldy |
| 88 | 74 | 79 | .102 | T | 78.7 | PtCldy |
| 89 | 74 | 79 | .138 | .06 | 79.8 | PtCldy |
| 88 | 75 | 79 | .118 | 0 | 80.2 | PtCldy |
| 86 | 74 | 79 | .114 | 0 | 79.4 | PtCldy |
| 91 | 75 | 81 | .079 | T | 80.2 | PtCldy |
| 83 | 76 | 78 | .145 | T | 79.9 | Cldy |
| 85 | 75 | 79 | .091 | 0 | 80.5 | PtCldy |
| 87 | 74 | 81 | .095 | 0 | 81.2 | PtCldy |
| 86 | 76 | 81 | .108 | .45 | 81.2 | PtCldy |
| 85 | 75 | 79 | .074 | 0 | 82.3 | PtCldy |
| 86 | 75 | 80 | .108 | .15 | 83.4 | PtCldy |
| 89 | 75 | 81 | .067 | 0 | 83.8 | PtCldy |
| 86 | 77 | 81 | .208 | .52 | 83.3 | Cldy |
| 85 | 76 | 79 | .099 | T | 83.2 | Cldy |
| 88 | 77 | 78 | .157 | 1.31 | 83.2 | Cldy |
| 87 | 73 | 78 | .091 | .63 | 83.1 | PtCldy |
| 87 | 75 | 80 | .058 | .07 | 83.8 | PtCldy |
| 87 | 74 | 80 | .036 | .23 | 83.5 | PtCldy |
| 88 | 76 | 81 | .154 | 0 | 83.5 | PtCldy |
| 88 | 77 | 82 | .098 | 0 | 83.2 | PtCldy |
| 87 | 78 | 81 | .063 | T | 83.1 | PtCldy |
| 87 | 76 | 80 | .138 | .27 | 84.6 | Cldy |
| 84 | 76 | 79 | .040 | .46 | 84.8 | Cldy |
| 83 | 75 | 78 | .102 | .45 | 83.9 | Cldy |
| 2694 | 2329 | * - | 3.922 | 6.36 | * - | |
| 86.9 | 75.1 | 79.6 | .126 | - | 81.9 | |

**ATMOSPHERIC PRESSURE** (Reduced to sea level; inches)

(Bihourly)

Mean 29.903; highest 29.940 date 5

Lowest 29.620 date 27

**TEMPERATURE**

Highest 92 date 1; lowest 73 date 1

Greatest daily range 19 date 1

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.9 | 1915 | 79.9 | 1924 | 79.0 | 1933 | 79.3 |
| 1907 | 80.1 | 1916 | 79.8 | 1925 | 80.4 | 1934 | 78.9 |
| 1908 | 78.5 | 1917 | 78.2 | 1926 | 80.9 | 1935 | 79.0 |
| 1909 | 78.8 | 1918 | 79.8 | 1927 | 78.6 | 1936 | 79.6 |
| 1910 | 77.7 | 1919 | 80.8 | 1928 | 79.6 | 1937 | |
| 1911 | 78.0 | 1920 | 80.3 | 1929 | 79.7 | 1938 | |
| 1912 | 80.3 | 1921 | 78.0 | 1930 | 79.5 | 1939 | |
| 1913 | 78.4 | 1922 | 79.3 | 1931 | 79.7 | 1940 | |
| 1914 | 80.1 | 1923 | 79.3 | 1932 | 78.9 | 1941 | |

Mean of this month for 31 years 79.3

Absolute maximum for this month for 31 years 85

Absolute minimum for this month for 31 years 70

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 31 years + 0.3

**EVAPORATION**

Total this month 3.922 Average daily .126 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.85 date 22 - 23

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 10.28 | 1899 | 9.58 | 1913 | 8.27 | 1927 | 9.06 |
| 1880 | 4.45 | 1900 | 11.28 | 1914 | 6.98 | 1928 | 4.80 |
| 1881 | 10.35 | 1901 | 11.08 | 1915 | 6.42 | 1929 | 4.04 |
| 1882 | 5.24 | 1902 | - | 1916 | 12.59 | 1930 | 9.70 |
| 1888 | - | 1903 | - | 1917 | 5.75 | 1931 | 13.15 |
| 1889 | - | 1904 | - | 1918 | 6.75 | 1932 | 9.39 |
| 1890 | - | 1905 | - | 1919 | 5.21 | 1933 | 7.96 |
| 1891 | - | 1906 | 10.88 | 1920 | 3.51 | 1934 | 4.96 |
| 1892 | - | 1907 | 4.44 | 1921 | 8.80 | 1935 | 8.10 |
| 1893 | - | 1908 | 7.64 | 1922 | 9.88 | 1936 | 6.36 |
| 1894 | - | 1909 | 9.10 | 1923 | 5.84 | 1937 | |
| 1895 | - | 1910 | 9.89 | 1924 | 5.61 | 1938 | |
| 1896 | - | 1911 | 11.04 | 1925 | 6.75 | 1939 | |
| 1897 | - | 1912 | 10.71 | 1926 | 4.14 | 1940 | |
| 1898 | | | | | | 1941 | |

Average of this month for 38 years 7.86

Total from January 1, 19 36 to date 9.19

Average from January 1, to date 13.09

Excess (+) or deficiency (−) from January 1, 19 36 to date as compared with average of corresponding period -3.90

**WIND**

Prevailing direction NW Total movement 3809 miles

Average hourly velocity 5.1 miles per hour

Maximum velocity (for five minutes) 25 miles per hour

from NW on 2nd

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 22 Cloudy 9

Days on which .01 inch, or more, of rain occurred 18

**MISCELLANEOUS PHENOMENA** (Dates of)

Halos: Lunar None

Fogs: Light 11th

Fogs: Dense None

Thunderstorms 8, 6, 9, 10, 12, 22, 23, 24, 25 & 27

Earthquakes Total - 13

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month June, 1936

| Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 84 | 75 | 79 | .039 | .75 | 83.1 | Cloudy |
| 86 | 78 | 82 | .065 | 0 | 82.6 | Pt.Cldy. |
| 87 | 74 | 80 | .091 | .04 | 85.2 | Pt.Cldy. |
| 84 | 75 | 81 | .122 | .65 | 84.8 | Pt.Cldy. |
| 86 | 76 | 81 | .130 | .01 | 84.4 | Pt.Cldy. |
| 85 | 76 | 78 | .157 | .65 | 84.3 | Cloudy |
| 83 | 74 | 80 | .065 | 0 | 84.2 | Cloudy |
| 83 | 76 | 78 | .134 | .11 | 83.3 | Cloudy |
| 83 | 77 | 80 | .098 | .06 | 82.2 | Cloudy |
| 85 | 75 | 79 | .143 | .07 | 82.9 | Pt.Cldy. |
| 81 | 73 | 76 | .150 | .80 | 83.2 | Cloudy |
| 77 | 73 | 74 | .028 | .75 | 81.9 | Cloudy |
| 82 | 74 | 78 | .043 | .01 | 82.5 | Cloudy |
| 81 | 74 | 78 | .059 | 0 | 83.0 | Cloudy |
| 85 | 74 | 80 | .051 | 0 | 83.5 | Cloudy |
| 85 | 76 | 81 | .122 | .15 | 84.9 | Pt.Cldy. |
| 86 | 76 | 80 | .105 | .16 | 84.7 | Cloudy |
| 83 | 76 | 79 | .118 | .38 | 84.2 | Cloudy |
| 87 | 75 | 80 | .055 | 0 | 84.7 | Cloudy |
| 86 | 73 | 78 | .098 | 3.42 | 83.9 | Cloudy |
| 82 | 72 | 77 | .079 | .62 | 80.2 | Cloudy |
| 84 | 76 | 80 | .039 | .04 | 82.0 | Cloudy |
| 91 | 74 | 81 | .079 | 0 | 83.7 | Pt.Cldy. |
| 92 | 75 | 81 | .118 | 0 | 84.2 | Pt.Cldy. |
| 87 | 77 | 80 | .118 | 0 | 84.1 | Cloudy |
| 87 | 76 | 80 | .079 | .18 | 83.5 | Cloudy |
| 87 | 76 | 81 | .079 | 0 | 83.4 | Cloudy |
| 89 | 74 | 80 | .098 | .02 | 84.1 | Cloudy |
| 85 | 76 | 79 | .134 | .01 | 83.7 | Cloudy |
| 85 | 75 | 79 | .094 | .26 | 84.0 | Cloudy |
| 2563 | 2251 | * — | 2.786 | 9.12 | * — | |
| 85.1 | 75.0 | 79.3 | .093 | — | 83.6 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.824; highest 29.960 date 18th

Lowest 29.700 date 7th

**TEMPERATURE**

Highest 92 date 24 lowest 72 date 21

Greatest daily range 17 date 24

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1905 | 78.7 | 1915 | 79.6 | 1924 | 77.8 | 1933 | 78.4 |
| 1907 | 78.2 | 1916 | 77.9 | 1925 | 78.8 | 1934 | 78.9 |
| 1908 | 78.5 | 1917 | 77.8 | 1926 | 79.5 | 1935 | 78.5 |
| 1909 | 77.4 | 1918 | 78.5 | 1927 | 78.3 | 1936 | 79.3 |
| 1910 | 77.8 | 1919 | 79.3 | 1928 | 78.4 | 1937 | |
| 1911 | 78.8 | 1920 | 79.2 | 1929 | 78.5 | 1938 | |
| 1912 | 79.1 | 1921 | 78.5 | 1930 | 79.4 | 1939 | |
| 1913 | 79.0 | 1922 | 78.4 | 1931 | 79.5 | 1940 | |
| 1914 | 79.2 | 1923 | 78.7 | 1932 | 78.7 | 1941 | |

Mean of this month for 31 years 78.7

Absolute maximum for this month for 31 years 95

Absolute minimum for this month for 31 years 70

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 31 years +0.6

**EVAPORATION**

Total this month 2.786 Average daily .093 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 4.03 date 20 and 21

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1886 | 6.46 | 1899 | 8.48 | 1913 | 8.15 | 1927 | 10.83 |
| 1888 | 5.00 | 1900 | 5.95 | 1914 | 7.28 | 1928 | 8.78 |
| 1887 | 13.78 | 1901 | 12.65 | 1915 | 2.85 | 1929 | 9.34 |
| 1888 | 6.18 | 1902 | — | 1916 | 4.39 | 1930 | 2.50 |
| 1889 | — | 1903 | — | 1917 | 7.35 | 1931 | 7.81 |
| 1890 | — | 1904 | — | 1918 | 5.20 | 1932 | 9.23 |
| 1891 | — | 1905 | 7.33 | 1919 | 8.93 | 1933 | 14.36 |
| 1892 | — | 1906 | 8.57 | 1920 | 4.85 | 1934 | 10.85 |
| 1893 | — | 1907 | 12.64 | 1921 | 7.86 | 1935 | 7.54 |
| 1894 | — | 1908 | 4.28 | 1922 | 7.92 | 1936 | 9.12 |
| 1895 | — | 1909 | 9.20 | 1923 | 5.59 | 1937 | |
| 1896 | — | 1910 | 8.82 | 1924 | 8.41 | 1938 | |
| 1897 | — | 1911 | 3.40 | 1925 | 18.34 | 1939 | |
| 1898 | — | 1912 | 5.80 | 1926 | 12.33 | 1940 | |

Average of this month for 39 years 8.26

Total from January 1, 1936 to date 18.31

Average from January 1, to date 21.33

Excess (+) or deficiency (−) from January 1, 1936 to date as compared with average of corresponding period −3.04

**WIND**

Prevailing direction SE Total movement 3885 miles

Average hourly velocity 5.4 miles per hour

Maximum velocity (for five minutes) 20 miles per hour from S on 21

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 22 Cloudy 8

Days on which .01 inch, or more, of rain occurred 21

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 1, 4, 5, 6, 11, 28 and 29

Earthquakes Total 10

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

*dvs

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

tation, Balboa Heights; Month July, 1936

| TEMPERATURE (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 85 | 75 | 79 | .098 | 0 | 85.6 | Cldy |
| 87 | 75 | 80 | .115 | 0 | 85.6 | Cldy |
| 89 | 75 | 81 | .090 | 0 | 85.8 | Cldy |
| 88 | 75 | 80 | .158 | 0 | 85.8 | Cldy |
| 88 | 77 | 81 | .078 | 0 | 85.1 | Cldy |
| 82 | 72 | 77 | .126 | 3.26 | 82.4 | Cldy |
| 84 | 73 | 78 | .079 | .88 | 82.6 | Cldy |
| 85 | 74 | 78 | .079 | 0 | 83.8 | Cldy |
| 89 | 72 | 79 | .063 | 0 | 84.8 | Cldy |
| 87 | 74 | 78 | .114 | .02 | 85.6 | Cldy |
| 85 | 73 | 77 | .126 | .10 | 85.2 | Cldy |
| 84 | 73 | 78 | .050 | 0 | 83.7 | Cldy |
| 85 | 73 | 78 | .130 | 0 | 85.3 | Cldy |
| 86 | 74 | 79 | .086 | .04 | 85.8 | Cldy |
| 87 | 75 | 80 | .126 | .16 | 85.8 | Cldy |
| 84 | 75 | 80 | .075 | T | 85.6 | Cldy |
| 88 | 75 | 80 | .126 | 0 | 85.9 | Cldy |
| 92 | 76 | 82 | .106 | 0 | 85.7 | Pt cldy |
| 90 | 77 | 80 | .063 | .02 | 84.2 | Pt cldy |
| 89 | 75 | 76 | .118 | 1.30 | 84.4 | Cldy |
| 85 | 75 | 77 | .050 | .12 | 83.8 | Cldy |
| 85 | 73 | 79 | .040 | T | 84.8 | Pt cldy |
| 88 | 75 | 79 | .118 | T | 85.4 | Pt cldy |
| 89 | 75 | 78 | .118 | 0 | 85.4 | Cldy |
| 85 | 75 | 78 | .079 | .54 | 85.2 | Cldy |
| 87 | 74 | 79 | .078 | 0 | 84.0 | Pt cldy |
| 89 | 75 | 80 | .079 | T | 83.9 | Cldy |
| 87 | 75 | 80 | .118 | 0 | 83.5 | Pt cldy |
| 90 | 74 | 80 | .158 | T | 84.0 | Pt cldy |
| 88 | 76 | 80 | .126 | 0 | 83.6 | Cldy |
| 88 | 75 | 77 | .141 | .10 | 83.3 | Cldy |
| 2691 | 2308 | * - | 3.119 | 5.94 | * 84.8 | |
| 86.8 | 74.5 | 78.1 | .101 | - | - | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.820; highest 29.950 date 9th

Lowest 29.690 date 4th

**TEMPERATURE**

Highest 92 date 18; lowest 72 date 6

Greatest daily range 17 date 9

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.0 | 1915 | 78.4 | 1924 | 78.2 | 1933 | 78.5 |
| 1907 | 78.6 | 1916 | 77.4 | 1925 | 78.3 | 1934 | 79.5 |
| 1908 | 78.3 | 1917 | 77.8 | 1926 | 78.9 | 1935 | 78.4 |
| 1909 | 77.5 | 1918 | 79.4 | 1927 | 78.7 | 1936 | 78.9 |
| 1910 | 76.6 | 1919 | 79.1 | 1928 | 79.9 | 1937 | |
| 1911 | 79.9 | 1920 | 78.9 | 1929 | 79.0 | 1938 | |
| 1912 | 78.9 | 1921 | 78.9 | 1930 | 80.0 | 1939 | |
| 1913 | 79.1 | 1922 | 79.8 | 1931 | 78.4 | 1940 | |
| 1914 | 80.7 | 1923 | 79.3 | 1932 | 78.8 | 1941 | |

Mean of this month for 31 years 78.8

Absolute maximum for this month for 31 years 95

Absolute minimum for this month for 31 years 67

Average daily excess, (+) ~~or deficiency (−)~~ of his month as compared with mean of 31 years +.01

**EVAPORATION**

Total this month 3.119 Average daily .101 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 3.53 date 6 & 7

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 7.91 | 1899 | 8.20 | 1913 | 4.85 | 1927 | 8.22 |
| 1880 | 9.88 | 1900 | 15.82 | 1914 | 4.52 | 1928 | 7.91 |
| 1881 | 7.20 | 1901 | 14.11 | 1915 | 6.95 | 1929 | 5.22 |
| 1882 | 5.35 | 1902 | - | 1916 | 10.13 | 1930 | 4.04 |
| 1889 | - | 1903 | - | 1917 | 10.17 | 1931 | 10.42 |
| 1890 | - | 1904 | - | 1918 | 5.13 | 1932 | 6.32 |
| 1891 | - | 1905 | 4.31 | 1919 | 4.75 | 1933 | 6.08 |
| 1892 | - | 1906 | 9.01 | 1920 | 5.18 | 1934 | 5.38 |
| 1893 | - | 1907 | 4.28 | 1921 | 8.07 | 1935 | 13.16 |
| 1894 | - | 1908 | 6.83 | 1922 | 5.08 | 1936 | 5.94 |
| 1895 | - | 1909 | 9.01 | 1923 | 3.15 | 1937 | |
| 1896 | - | 1910 | 9.26 | 1924 | 5.97 | 1938 | |
| 1897 | - | 1911 | 5.78 | 1925 | 3.83 | 1939 | |
| 1898 | 3.36 | 1912 | 10.25 | 1926 | 9.95 | 1940 | |

Average of this month for 40 years 7.29

Total from January 1, 19 36 to date 24.35

Average from January 1, to date 28.44

Excess (+) or deficiency (−) from January 1, 19 36 to date as compared with average of corresponding period - 4.09

**WIND**

Prevailing direction NW Total movement 3544 miles

Average hourly velocity 4.8 miles per hour

Maximum velocity (for five minutes) 31 miles per hour

from NW on 20

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 7 Cloudy 24

Days on which .01 inch, or more, of rain occurred 11

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 6-7-9-11-15-18-19-20-29 + 31

Earthquakes Total - 10

te.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

MR 43091—Panama Canal—2-25-35—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month AUGUST, 1936.

| Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 85 | 74 | 78 | .193 | 0 | 83.9 | Cldy |
| 82 | 74 | 77 | .130 | .08 | 83.2 | Cldy |
| 88 | 72 | 76 | .033 | 3.22 | 81.3 | Cldy |
| 82 | 72 | 76 | .024 | 0 | 79.9 | Cldy |
| 86 | 73 | 78 | .098 | 0 | 81.9 | Cldy |
| 89 | 74 | 81 | .095 | .05 | 82.2 | Pt. Cldy |
| 89 | 76 | 81 | .134 | .10 | 82.7 | Cldy |
| 91 | 76 | 80 | .126 | T | 82.9 | Cldy |
| 89 | 75 | 78 | .039 | .72 | 82.5 | Cldy |
| 81 | 74 | 76 | .130 | .58 | 81.5 | Cldy |
| 81 | 74 | 77 | .043 | .04 | 81.8 | Cldy |
| 87 | 74 | 79 | .028 | .01 | 82.5 | Pt. Cldy |
| 89 | 75 | 80 | .090 | .03 | 83.5 | Pt. Cldy |
| 85 | 74 | 79 | .126 | 0 | 82.8 | Pt. Cldy |
| 87 | 74 | 80 | .079 | T | 82.7 | Cldy |
| 89 | 75 | 82 | .110 | 0 | 83.6 | Pt. Cldy |
| 89 | 76 | 82 | .142 | T | 83.6 | Cldy |
| 83 | 76 | 77 | .215 | .07 | 82.8 | Cldy |
| 87 | 74 | 78 | .106 | .06 | 83.1 | Cldy |
| 84 | 75 | 77 | .098 | .16 | 83.3 | Cldy |
| 84 | 73 | 78 | .044 | 0 | 83.2 | Cldy |
| 88 | 73 | 79 | .059 | .43 | 84.1 | Pt. Cldy |
| 84 | 73 | 79 | .059 | 0 | 83.9 | Pt. Cldy |
| 88 | 74 | 78 | .153 | T | 83.2 | Pt. Cldy |
| 86 | 74 | 79 | .044 | .01 | 84.1 | Pt. Cldy |
| 90 | 74 | 81 | .126 | 0 | 84.8 | Pt. Cldy |
| 90 | 75 | 81 | .141 | 0 | 84.0 | Pt. Cldy |
| 90 | 75 | 80 | .091 | .41 | 83.0 | Cldy |
| 87 | 76 | 80 | .122 | 0 | 83.0 | Cldy |
| 85 | 75 | 79 | .098 | .16 | 82.6 | Cldy |
| 82 | 76 | 79 | .087 | .01 | 82.0 | Cldy |
| 2677 | 2305 | * - | 5.061 | 6.14 | * - | |
| 86.4 | 74.4 | 78.8 | .099 | - | 82.9 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.803; highest 29.950 date 4th

Lowest 29.690 date 26th

**TEMPERATURE**

Highest 91 date 8; lowest 72 date 4

Greatest daily range 18 date 3

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.1 | 1915 | 79.0 | 1924 | 77.7 | 1933 | 78.8 |
| 1907 | 78.6 | 1916 | 77.1 | 1925 | 79.1 | 1934 | 79.4 |
| 1908 | 78.6 | 1917 | 77.6 | 1926 | 79.2 | 1935 | 77.7 |
| 1909 | 77.8 | 1918 | 79.1 | 1927 | 78.8 | 1936 | 78.8 |
| 1910 | 77.4 | 1919 | 79.5 | 1928 | 78.2 | 1937 | |
| 1911 | 78.5 | 1920 | 78.7 | 1929 | 77.7 | 1938 | |
| 1912 | 78.8 | 1921 | 78.8 | 1930 | 79.3 | 1939 | |
| 1913 | 78.8 | 1922 | 79.1 | 1931 | 79.8 | 1940 | |
| 1914 | 79.4 | 1923 | 78.7 | 1932 | 78.4 | 1941 | |

Mean of this month for 31 years 78.6

Absolute maximum for this month for 31 years 94

Absolute minimum for this month for 31 years 68

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 31 years +0.2

**EVAPORATION**

Total this month 3.061 Average daily .099 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 3.22 date 3

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1884 | 7.24 | 1899 | 8.80 | 1913 | 8.20 | 1927 | 7.76 |
| 1885 | 11.46 | 1900 | 6.00 | 1914 | 6.09 | 1928 | 6.87 |
| 1886 | 4.49 | 1901 | 8.67 | 1915 | 15.24 | 1929 | 11.96 |
| 1887 | 4.05 | 1902 | - | 1916 | 10.53 | 1930 | 4.34 |
| 1888 | - | 1903 | - | 1917 | 7.42 | 1931 | 4.28 |
| 1889 | - | 1904 | - | 1918 | 3.84 | 1932 | 7.61 |
| 1890 | - | 1905 | 5.31 | 1919 | 5.82 | 1933 | 6.55 |
| 1891 | - | 1906 | 6.43 | 1920 | 12.22 | 1934 | 4.52 |
| 1892 | - | 1907 | 7.46 | 1921 | 9.51 | 1935 | 11.41 |
| 1893 | - | 1908 | 11.48 | 1922 | 1.46 | 1936 | 6.14 |
| 1894 | - | 1909 | 6.84 | 1923 | 5.37 | 1937 | |
| 1895 | - | 1910 | 12.00 | 1924 | 14.46 | 1938 | |
| 1896 | - | 1911 | 7.21 | 1925 | 10.83 | 1939 | |
| 1897 | - | 1912 | 6.33 | 1926 | 10.45 | 1940 | |
| 1898 | 6.89 | | | | | | |

Average of this month for 40 years 7.83

Total from January 1, 1936 to date 30.39

Average from January 1, to date 36.47

Excess (+) or deficiency (−) from January 1, 1936 to date as compared with average of corresponding period -6.08

**WIND**

Prevailing direction NW Total movement 3816 miles

Average hourly velocity 5.1 miles per hour

Maximum velocity (for five minutes) 19 miles per hour

from N on 9

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 11 Cloudy 20

Days on which .01 inch, or more, of rain occurred 17

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 3, 7, 13, 17, 20, 22, 24, 27, 28, 29, 30,

Earthquakes Total - 16

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, ; Month SEPTEMBER, 1936

| Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 84 | 75 | 78 | .083 | .65 | 81.9 | Cldy. |
| 81 | 75 | 77 | .091 | .25 | 81.6 | Cldy. |
| 84 | 73 | 77 | .067 | .05 | 82.6 | Cldy. |
| 85 | 72 | 76 | .086 | .87 | 81.8 | Cldy. |
| 84 | 72 | 78 | .095 | .00 | 81.8 | Pt.Cldy. |
| 85 | 73 | 78 | .043 | .87 | 82.3 | Cldy. |
| 80 | 73 | 76 | .094 | 1.14 | 80.5 | Cldy. |
| 85 | 73 | 80 | .040 | .00 | 81.0 | Pt.Cldy. |
| 90 | 73 | 78 | .118 | .19 | 82.4 | Cldy. |
| 88 | 74 | 80 | .039 | .00 | 83.6 | Pt.Cldy. |
| 82 | 74 | 77 | .095 | .22 | 82.9 | Cldy. |
| 87 | 73 | 80 | .079 | .00 | 83.5 | Pt.Cldy. |
| 85 | 73 | 79 | .070 | .00 | 83.7 | Cldy. |
| 87 | 74 | 79 | .134 | T | 82.9 | Cldy. |
| 88 | 75 | 80 | .079 | .00 | 82.3 | Cldy. |
| 90 | 75 | 80 | .144 | .00 | 83.8 | Pt.Cldy. |
| 89 | 74 | 79 | .153 | .17 | 83.3 | Cldy. |
| 83 | 74 | 77 | .130 | .01 | 83.2 | Cldy. |
| 84 | 74 | 78 | .095 | 1.48 | 82.5 | Cldy. |
| 85 | 74 | 77 | .075 | .31 | 83.6 | Cldy. |
| 90 | 72 | 78 | .161 | .64 | 83.4 | Cldy. |
| 83 | 74 | 78 | .059 | T | 83.1 | Cldy. |
| 80 | 74 | 77 | .063 | .21 | 82.3 | Cldy. |
| 85 | 72 | 78 | .051 | .00 | 84.2 | Cldy. |
| 84 | 72 | 76 | .079 | .96 | 83.2 | Cldy. |
| 86 | 72 | 78 | .114 | .00 | 82.7 | Clear |
| 88 | 73 | 80 | .087 | .00 | 84.3 | Pt.Cldy. |
| 85 | 74 | 77 | .110 | .57 | 82.6 | Cldy. |
| 85 | 73 | 77 | .055 | .03 | 83.2 | Cldy. |
| 86 | 73 | 79 | .055 | .00 | 83.7 | Cldy. |
| Sums | | * — | 2.644 | 8.62 | * ---- | |
| Means | 75.4 | 78.1 | .088 | ---- | 82.8 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)
Mean 29.831; highest 29.970 date 26
Lowest 29.680 date 16

**TEMPERATURE**

Highest 90 date 16; lowest 72 date 26
Greatest daily range 17 date 9
Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.5 | 1915 79.1 | 1924 78.0 | 1933 78.4 |
| 1907 78.5 | 1916 77.6 | 1925 78.0 | 1934 79.0 |
| 1908 78.7 | 1917 77.6 | 1926 79.0 | 1935 78.9 |
| 1909 78.2 | 1918 78.9 | 1927 77.7 | 1936 78.1 |
| 1910 77.8 | 1919 78.2 | 1928 78.9 | 1937 |
| 1911 79.0 | 1920 78.5 | 1929 77.9 | 1938 |
| 1912 78.0 | 1921 78.3 | 1930 79.7 | 1939 |
| 1913 78.5 | 1922 78.1 | 1931 78.7 | 1940 |
| 1914 78.5 | 1923 78.8 | 1932 78.7 | 1941 |

Mean of this month for 31 years 78.5
Absolute maximum for this month for 31 years 95
Absolute minimum for this month for 31 years 65
Average daily excess, (+) or deficiency (−) of his month as compared with mean of 31 years −0.4

**EVAPORATION**

Total this month 2.644 Average daily .088 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.01 date 6 & 7
Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 9.02 | 1899 6.15 | 1913 11.43 | 1927 6.53 |
| 1886 7.91 | 1900 7.76 | 1914 9.60 | 1928 10.44 |
| 1887 8.94 | 1901 15.06 | 1915 3.69 | 1929 9.26 |
| 1888 4.05 | 1902 - | 1916 8.02 | 1930 7.61 |
| 1889 - | 1903 - | 1917 11.53 | 1931 11.09 |
| 1890 - | 1904 - | 1918 7.03 | 1932 7.25 |
| 1891 - | 1905 7.46 | 1919 10.84 | 1933 5.18 |
| 1892 - | 1906 4.83 | 1920 9.14 | 1934 16.38 |
| 1893 - | 1907 11.14 | 1921 3.87 | 1935 4.70 |
| 1894 - | 1908 5.93 | 1922 8.18 | 1936 8.62 |
| 1895 - | 1909 3.85 | 1923 4.60 | 1937 |
| 1896 - | 1910 4.84 | 1924 12.55 | 1938 |
| 1897 - | 1911 6.03 | 1925 9.01 | 1939 |
| 1898 7.94 | 1912 8.39 | 1926 8.41 | 1940 |

Average of this month for 40 years 8.09
Total from January 1, 19 36 to date 39.01
Average from January 1, to date 44.56
Excess (+) or deficiency (−) from January 1, 19 36 to date as compared with average of corresponding period −5.55

**WIND**

Prevailing direction NW Total movement 3330 miles
Average hourly velocity 4.6 miles per hour
Maximum velocity (for five minutes) 27 miles per hour from N on 9th.

**(WEATHER No. of days)**

Clear 1 Pt. Cloudy 6 Cloudy 23
Days on which .01 inch, or more, of rain occurred 17

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None
Fogs: Light 21 & 29
Fogs: Dense None
Thunderstorms 1, 2, 6, 11, 14, 17, 18, 19, 21
Earthquakes Total 11 / 23, 25, 28 & 29

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month October, 1936.

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 82 | 74 | 77 | .091 | 1.36 | 82.8 | Cldy. |
| 2 | 87 | 71 | 78 | .094 | .08 | 82.5 | Pt.Cldy. |
| 3 | 90 | 75 | 79 | .071 | .06 | 83.8 | Cldy. |
| 4 | 84 | 74 | 77 | .067 | .47 | 83.2 | Cldy. |
| 5 | 80 | 73 | 75 | .114 | .80 | 82.2 | Cldy. |
| 6 | 83 | 72 | 77 | .080 | .63 | 81.9 | Cldy. |
| 7 | 83 | 75 | 79 | .085 | .31 | 81.8 | Cldy. |
| 8 | 81 | 75 | 78 | .078 | .17 | 81.5 | Cldy. |
| 9 | 79 | 75 | 77 | .079 | .74 | 82.0 | Cldy. |
| 10 | 85 | 73 | 79 | .058 | 0 | 83.4 | Cldy. |
| 11 | 85 | 74 | 79 | .063 | .16 | 84.3 | Cldy. |
| 12 | 87 | 75 | 80 | .092 | .65 | 84.7 | Pt.Cldy. |
| 13 | 91 | 73 | 79 | .116 | .02 | 84.6 | Cldy. |
| 14 | 85 | 74 | 79 | .119 | 0 | 83.9 | Cldy. |
| 15 | 83 | 74 | 78 | .075 | .39 | 83.3 | Cldy. |
| 16 | 81 | 73 | 76 | .075 | .42 | 82.7 | Cldy. |
| 17 | 86 | 72 | 79 | .055 | .05 | 84.4 | Pt.Cldy. |
| 18 | 82 | 74 | 77 | .047 | .03 | 84.8 | Cldy. |
| 19 | 84 | 73 | 77 | .134 | .37 | 84.5 | Cldy. |
| 20 | 82 | 74 | 79 | .051 | .01 | 83.1 | Cldy. |
| 21 | 83 | 73 | 77 | .079 | .19 | 84.4 | Cldy. |
| 22 | 88 | 73 | 80 | .079 | .30 | 84.7 | Pt.Cldy. |
| 23 | 84 | 73 | 78 | .094 | .38 | 85.5 | Cldy. |
| 24 | 85 | 73 | 78 | .128 | .01 | 84.8 | Pt.Cldy. |
| 25 | 91 | 71 | 78 | .102 | .38 | 84.5 | Cldy. |
| 26 | 88 | 73 | 78 | .114 | T | 83.7 | Pt.Cldy. |
| 27 | 86 | 74 | 78 | .067 | 0 | 83.7 | Cldy. |
| 28 | 84 | 74 | 78 | .067 | .01 | 83.6 | Cldy. |
| 29 | 87 | 74 | 77 | .114 | 1.48 | 82.8 | Cldy. |
| 30 | 84 | 73 | 77 | .085 | .01 | 82.9 | Cldy. |
| 31 | 87 | 74 | 78 | .069 | .05 | 82.8 | Cldy. |
| Sum | 2685 | 2278 | * | 2.546 | 9.48 | * | |
| Mean | 84.7 | 73.5 | 78.0 | .085 | — | 83.5 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)
(Bi-hourly)
Mean 29.825; highest 29.940 date 24
Lowest 29.690 date 3

**TEMPERATURE**
Highest 91 date 13; lowest 71 date 2
Greatest daily range 20 date 25
Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 78.0 | 1915 77.8 | 1924 77.6 | 1933 77.8 |
| 1907 77.5 | 1916 76.8 | 1925 78.4 | 1934 77.2 |
| 1908 77.8 | 1917 77.1 | 1926 78.8 | 1935 78.4 |
| 1909 77.5 | 1918 77.7 | 1927 78.1 | 1936 78.0 |
| 1910 77.2 | 1919 78.1 | 1928 78.2 | 1937 |
| 1911 77.9 | 1920 77.8 | 1929 77.8 | 1938 |
| 1912 77.2 | 1921 77.5 | 1930 78.2 | 1939 |
| 1913 78.5 | 1922 77.2 | 1931 78.8 | 1940 |
| 1914 78.0 | 1923 77.7 | 1932 78.1 | 1941 |

Mean of this month for 31 years 77.8
Absolute maximum for this month for 31 years 95
Absolute minimum for this month for 31 years 68
Average daily excess, (+) or deficiency (—) of this month as compared with mean of 31 years +0.2

**EVAPORATION**
Total this month 2.546 Average daily .085 inches

**PRECIPITATION**
Greatest precipitation in 24 hours 1.49 date 22 & 30
Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1878 9.80 | 1899 11.99 | 1913 8.30 | 1927 8.36 |
| 1880 11.51 | 1900 20.27 | 1914 6.44 | 1928 10.70 |
| 1881 9.68 | 1901 13.77 | 1915 10.49 | 1929 7.89 |
| 1882 6.69 | 1902 — | 1916 10.17 | 1930 8.84 |
| 1889 — | 1903 — | 1917 6.14 | 1931 9.36 |
| 1890 — | 1904 — | 1918 9.15 | 1932 11.60 |
| 1891 — | 1905 8.49 | 1919 12.11 | 1933 5.82 |
| 1892 — | 1906 4.35 | 1920 6.48 | 1934 11.44 |
| 1893 — | 1907 9.26 | 1921 13.86 | 1935 10.78 |
| 1894 — | 1908 8.79 | 1922 9.05 | 1936 9.48 |
| 1895 — | 1909 8.77 | 1923 15.02 | 1937 |
| 1896 — | 1910 8.86 | 1924 10.36 | 1938 |
| 1897 — | 1911 10.90 | 1925 7.37 | 1939 |
| 1898 13.48 | 1912 17.82 | 1926 9.25 | 1940 |

Average of this month for 40 years 10.08
Total from January 1, 1936 to date 48.48
Average from January 1, to date 54.64
Excess (+) or deficiency (—) from January 1, 1936 to date as compared with average of corresponding period -6.16

**WIND**
Prevailing direction N N Total movement 5820 miles
Average hourly velocity 4.7 miles per hour
Maximum velocity (for five minutes) 19 miles per hour
from S on 7

**(WEATHER No. of days)**
Clear 0 Pt. Cloudy 6 Cloudy 25
Days on which .01 inch, or more, of rain occurred 27

**MISCELLANEOUS PHENOMENA** (DATES OF)
Halos: Lunar None
Fogs: Light 11, 12, and 18
Fogs: Dense None
Thunderstorms 1, 4, 9, 13, 14, 18, 23, 24, 26, 29, 30
Earthquakes Total 15

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

066-6

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month November, 1936

| | Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a. m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 74 | 79 | .063 | .55 | 82.6 | Cloudy |
| 2 | 85 | 73 | 79 | .090 | .52 | 82.6 | Cloudy |
| 3 | 86 | 74 | 77 | .079 | 1.36 | 82.2 | Cloudy |
| 4 | 80 | 73 | 76 | .106 | .06 | 81.4 | Cloudy |
| 5 | 86 | 72 | 79 | .122 | 0 | 83.4 | Clear |
| 6 | 88 | 73 | 80 | .095 | 0 | 83.9 | Cloudy |
| 7 | 89 | 73 | 80 | .146 | .04 | 84.2 | Pt.Cldy |
| 8 | 86 | 74 | 79 | .103 | .69 | 83.3 | Pt.Cldy |
| 9 | 87 | 74 | 78 | .118 | .04 | 82.9 | Cloudy |
| 10 | 86 | 74 | 79 | .078 | .26 | 82.3 | Pt.Cldy |
| 11 | 83 | 75 | 78 | .079 | 0 | 82.6 | Cloudy |
| 12 | 92 | 75 | 80 | .079 | .49 | 83.2 | Pt.Cldy |
| 13 | 89 | 75 | 80 | .079 | 0 | 83.0 | Pt.Cldy |
| 14 | 87 | 75 | 79 | .118 | 0 | 82.8 | Cloudy |
| 15 | 83 | 75 | 79 | .118 | .02 | 82.2 | Cloudy |
| 16 | 84 | 74 | 79 | .079 | .02 | 82.3 | Cloudy |
| 17 | 84 | 74 | 78 | .039 | 0 | 82.8 | Cloudy |
| 18 | 85 | 74 | 79 | .079 | .10 | 83.9 | Pt.Cldy |
| 19 | 87 | 75 | 79 | .118 | 0 | 84.2 | Pt.Cldy |
| 20 | 86 | 74 | 79 | .118 | .01 | 84.2 | Cloudy |
| 21 | 86 | 75 | 77 | .157 | 1.86 | 82.8 | Cloudy |
| 22 | 85 | 74 | 78 | .079 | 0 | 82.4 | Pt.Cldy |
| 23 | 89 | 74 | 80 | .079 | T | 83.5 | Pt.Cldy |
| 24 | 91 | 75 | 81 | .118 | 0 | 84.1 | Clear |
| 25 | 88 | 76 | 81 | .252 | .04 | 83.9 | Cloudy |
| 26 | 89 | 76 | 81 | .111 | .01 | 84.2 | Pt.Cldy |
| 27 | 81 | 74 | 76 | .153 | .71 | 82.9 | Cloudy |
| 28 | 84 | 74 | 78 | .075 | .15 | 82.7 | Cloudy |
| 29 | 85 | 73 | 77 | .067 | .84 | 82.7 | Pt.Cldy |
| 30 | 87 | 73 | 79 | .047 | .52 | 83.6 | Pt.Cldy |
| | 2587 | 2294 | * | 3.044 | 8.29 | * | |
| | 86.2 | 74.1 | 78.8 | .101 | | 83.1 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES) (Bi-hourly)

Mean 29.798; highest 29.990 date 28

Lowest 29.680 date 26

**TEMPERATURE**

Highest 92 date 12; lowest 72 date 5

Greatest daily range 17 date 12

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 77.7 | 1915 | 76.9 | 1924 | 76.7 | 1933 | 76.5 |
| 1907 | 77.7 | 1916 | 76.5 | 1925 | 78.6 | 1934 | 76.9 |
| 1908 | 76.9 | 1917 | 76.1 | 1926 | 77.7 | 1935 | 77.0 |
| 1909 | 75.7 | 1918 | 78.2 | 1927 | 78.3 | 1936 | 78.8 |
| 1910 | 77.3 | 1919 | 77.4 | 1928 | 76.9 | 1937 | |
| 1911 | 77.6 | 1920 | 78.2 | 1929 | 78.3 | 1938 | |
| 1912 | 77.1 | 1921 | 78.5 | 1930 | 79.2 | 1939 | |
| 1913 | 77.4 | 1922 | 77.0 | 1931 | 76.4 | 1940 | |
| 1914 | 78.0 | 1923 | 78.6 | 1932 | 77.3 | 1941 | |

Mean of this month for 31 years 77.5

Absolute maximum for this month for 31 years 94

Absolute minimum for this month for 31 years 67

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 31 years +1.3

**EVAPORATION**

Total this month 3.044 Average daily .101 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.86 date 21

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1879 | 19.21 | 1899 | 8.93 | 1913 | 10.63 | 1927 | 5.82 |
| 1880 | 6.46 | 1900 | 13.01 | 1914 | 10.35 | 1928 | 20.51 |
| 1881 | 9.72 | 1901 | 12.40 | 1915 | 7.05 | 1929 | 12.62 |
| 1882 | 10.91 | 1902 | - | 1916 | 8.77 | 1930 | 5.12 |
| 1889 | - | 1903 | - | 1917 | 13.77 | 1931 | 12.60 |
| 1890 | - | 1904 | - | 1918 | 9.61 | 1932 | 10.18 |
| 1891 | - | 1905 | 8.81 | 1919 | 4.97 | 1933 | 13.28 |
| 1892 | - | 1906 | 13.57 | 1920 | 19.22 | 1934 | 12.89 |
| 1893 | - | 1907 | 10.51 | 1921 | 7.11 | 1935 | 19.70 |
| 1894 | - | 1908 | 9.12 | 1922 | 8.44 | 1936 | 8.29 |
| 1895 | - | 1909 | 15.14 | 1923 | 8.81 | 1937 | |
| 1896 | - | 1910 | 4.29 | 1924 | 12.63 | 1938 | |
| 1897 | - | 1911 | 7.57 | 1925 | 3.52 | 1939 | |
| 1898 | 11.13 | 1912 | 6.38 | 1926 | 9.63 | 1940 | |

Average of this month for 40 years 10.57

Total from January 1, 1936 to date 56.78

Average from January 1, to date 65.21

Excess (+) or deficiency (—) from January 1, 1936 to date as compared with average of corresponding period -8.43

**WIND**

Prevailing direction NW Total movement 3431 miles

Average hourly velocity 4.8 miles per hour

Maximum velocity (for five minutes) 20 miles per hour from NE on 28

**(WEATHER No. of days)**

Clear 8 Pt. Cloudy 12 Cloudy 16

Days on which .01 inch, or more, of rain occurred 20

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 1, 2, 19 & 27

Earthquakes Total - 17

# THE PANAMA CANAL

MR 33839—Panama Canal—3-3-33—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS ; Month DECEMBER, 1936

| Temperature (Degrees Fahrenheit) Max | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a. m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|
| 88 | 73 | 78 | .106 | T | 83.3 | Pt.cldy |
| 88 | 70 | 78 | .146 | .12 | 83.3 | Pt.cldy |
| 87 | 72 | 79 | .110 | .03 | 82.8 | Pt.cldy |
| 89 | 72 | 79 | .099 | .05 | 82.7 | Pt.cldy |
| 90 | 73 | 80 | .134 | 0 | 83.1 | Pt.cldy |
| 89 | 74 | 81 | .169 | 0 | 83.4 | Pt.cldy |
| 88 | 74 | 80 | .221 | 0 | 83.2 | Pt.cldy |
| 89 | 74 | 81 | .224 | 0 | 83.4 | Pt.cldy |
| 87 | 74 | 79 | .205 | T | 83.8 | Pt.cldy |
| 87 | 72 | 78 | .161 | .02 | 83.0 | Cldy |
| 85 | 70 | 77 | .114 | 0 | 81.6 | Pt.cldy |
| 86 | 72 | 77 | .107 | .30 | 82.3 | Pt.cldy |
| 86 | 71 | 76 | .086 | .10 | 81.8 | Pt.cldy |
| 86 | 71 | 76 | .138 | .06 | 81.9 | Pt.cldy |
| 86 | 69 | 77 | .138 | 0 | 81.4 | Pt.cldy |
| 87 | 70 | 77 | .134 | 0 | 81.3 | Pt.cldy |
| 88 | 70 | 77 | .157 | 0 | 82.2 | Pt.cldy |
| 89 | 72 | 78 | .158 | 0 | 82.5 | Pt.cldy |
| 89 | 72 | 77 | .146 | .01 | 81.7 | Pt.cldy |
| 88 | 73 | 78 | .086 | T | 80.9 | Pt.cldy |
| 89 | 72 | 78 | .188 | T | 80.7 | Pt.cldy |
| 86 | 73 | 78 | .126 | .62 | 80.3 | Pt.cldy |
| 88 | 71 | 79 | .134 | .03 | 80.7 | Pt.cldy |
| 88 | 72 | 78 | .134 | .24 | 80.8 | Pt.cldy |
| 88 | 70 | 78 | .141 | 0 | 80.8 | Pt.cldy |
| 88 | 71 | 78 | .197 | 0 | 80.8 | Clear |
| 87 | 70 | 78 | .236 | 0 | 80.7 | Pt.cldy |
| 89 | 72 | 79 | .225 | 0 | 80.6 | Pt.cldy |
| 86 | 72 | 78 | .208 | .26 | 80.8 | Pt.cldy |
| 88 | 69 | 77 | .182 | 0 | 80.7 | Pt.cldy |
| 90 | 70 | 77 | .185 | 0 | 81.1 | Pt.cldy |
| 2719 | 2220 | * -- | 4.795 | 1.84 | * -- | |
| 87.7 | 71.6 | 78.1 | .155 | -- | 81.9 | |

NOTE.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time. *Sum and Mean of Bihourly values.

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bi-hourly)

Mean 29.831 ; highest 29.950 date 15

Lowest 29.700 date 8

**TEMPERATURE**

Highest 90 date 5 ; lowest 69 date 15

Greatest daily range 20 date 31

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 77.4 | 1915 78.5 | 1924 77.7 | 1933 76.9 |
| 1907 79.1 | 1916 77.6 | 1925 79.5 | 1934 78.7 |
| 1908 77.6 | 1917 76.7 | 1926 77.7 | 1935 78.3 |
| 1909 76.6 | 1918 79.6 | 1927 78.6 | 1936 78.1 |
| 1910 77.3 | 1919 78.4 | 1928 78.1 | 1937 |
| 1911 79.3 | 1920 78.5 | 1929 78.3 | 1938 |
| 1912 78.7 | 1921 78.3 | 1930 79.6 | 1939 |
| 1913 78.3 | 1922 77.4 | 1931 78.5 | 1940 |
| 1914 79.3 | 1923 78.2 | 1932 77.9 | 1941 |

Mean of this month for 31 years 78.2

Absolute maximum for this month for 31 years 94

Absolute minimum for this month for 31 years 66

Average daily excess, (+) or deficiency (—) of this month as compared with mean of 31 years - 0.1

**EVAPORATION**

Total this month 4.795 Average daily .155 inches

**PRECIPITATION**

Greatest precipitation in 24 hours .62 date 22

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1879 .98 | 1899 4.35 | 1913 4.84 | 1927 2.95 |
| 1880 5.51 | 1900 1.85 | 1914 8.28 | 1928 6.95 |
| 1881 2.48 | 1901 2.32 | 1915 3.60 | 1929 4.17 |
| 1882 2.01 | 1902 - | 1916 5.86 | 1930 2.44 |
| 1889 - | 1903 - | 1917 4.09 | 1931 4.96 |
| 1890 - | 1904 - | 1918 .55 | 1932 2.66 |
| 1891 - | 1905 4.04 | 1919 1.81 | 1933 7.35 |
| 1892 - | 1906 5.52 | 1920 1.94 | 1934 2.71 |
| 1893 - | 1907 3.46 | 1921 5.19 | 1935 4.31 |
| 1894 - | 1908 4.16 | 1922 3.82 | 1936 1.84 |
| 1895 - | 1909 12.39 | 1923 3.94 | 1937 |
| 1896 - | 1910 10.63 | 1924 8.31 | 1938 |
| 1897 - | 1911 1.99 | 1925 1.88 | 1939 |
| 1898 1.89 | 1912 3.27 | 1926 8.38 | 1940 |

Average of this month for 40 years 4.24

Total from January 1, 1936 to date 58.62

Average from January 1, to date 69.45

Excess (+) or deficiency (—) from January 1, 1936 to date as compared with average of corresponding period - 10.83

**WIND**

Prevailing direction NW Total movement 4277 miles

Average hourly velocity 5.7 miles per hour

Maximum velocity (for five minutes) 20 miles per hour from N on 20

**(WEATHER No. of days)**

Clear 1 Pt. Cloudy 29 Cloudy 1

Days on which .01 inch, or more, of rain occurred 12

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 19th

Earthquakes Total: 14

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month OCTOBER, 1937

| | TEMPERATURE (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 77 | 81 | .082 | 0 | 82.2 | Pt.Cldy |
| 2 | 89 | 74 | 80 | .118 | 0 | 81.4 | Pt.Cldy |
| 3 | 82 | 74 | 77 | .079 | 0 | 82.8 | Pt.Cldy |
| 4 | 85 | 73 | 79 | .126 | .01 | 82.9 | Pt.Cldy |
| 5 | 89 | 74 | 79 | .114 | .65 | 83.4 | Pt.Cldy |
| 6 | 85 | 75 | 79 | .091 | .06 | 82.5 | Cloudy |
| 7 | 89 | 74 | 79 | .150 | .15 | 81.9 | Cloudy |
| 8 | 84 | 75 | 77 | .086 | .11 | 81.3 | Cloudy |
| 9 | 83 | 72 | 78 | .071 | 0 | 82.8 | Pt.Cldy |
| 10 | 84 | 74 | 78 | .103 | .23 | 83.1 | Cloudy |
| 11 | 87 | 75 | 80 | .055 | .40 | 83.5 | Pt.Cldy |
| 12 | 89 | 75 | 81 | .098 | 0 | 83.8 | Pt.Cldy |
| 13 | 89 | 76 | 81 | .102 | .03 | 83.7 | Cloudy |
| 14 | 88 | 75 | 80 | .123 | T | 83.8 | Pt.Cldy |
| 15 | 83 | 74 | 77 | .110 | 2.75 | 80.1 | Cloudy |
| 16 | 86 | 73 | 80 | .055 | .02 | 82.1 | Pt.Cldy |
| 17 | 88 | 75 | 80 | .165 | 0 | 83.4 | Pt.Cldy |
| 18 | 84 | 75 | 78 | .168 | .02 | 82.8 | Cloudy |
| 19 | 86 | 73 | 79 | .082 | 0 | 82.8 | Pt.Cldy |
| 20 | 87 | 74 | 79 | .107 | 0 | 82.9 | Pt.Cldy |
| 21 | 88 | 72 | 81 | .088 | 0 | 83.2 | Pt.Cldy |
| 22 | 87 | 76 | 80 | .124 | 0 | 83.6 | Pt.Cldy |
| 23 | 85 | 74 | 78 | .107 | .33 | 83.4 | Cloudy |
| 24 | 85 | 74 | 77 | .081 | .10 | 83.3 | Pt.Cldy |
| 25 | 85 | 72 | 77 | .284 | .14 | 83.1 | Cloudy |
| 26 | 84 | 73 | 77 | .150 | .06 | 80.1 | Cloudy |
| 27 | 83 | 72 | 78 | .082 | .57 | 81.8 | Cloudy |
| 28 | 85 | 74 | 79 | .060 | .03 | 82.5 | Pt.Cldy |
| 29 | 83 | 73 | 76 | .079 | 2.86 | 80.8 | Cloudy |
| 30 | 84 | 72 | 77 | .059 | .61 | 80.1 | Cloudy |
| 31 | 83 | 73 | 77 | .059 | T | 81.7 | Pt.Cldy |
| | 2654 | 2292 | * - | 3.258 | 9.13 | * - | |
| | 85.6 | 73.9 | 78.7 | .105 | - | 82.6 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.857; highest 29.970 date 27

Lowest 29.700 date 17

**TEMPERATURE**

Highest 89 date 5; lowest 72 date 27

Greatest daily range 16 date 21

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 78.0 | 1915 77.8 | 1924 77.6 | 1933 77.8 |
| 1907 77.3 | 1916 76.8 | 1925 78.4 | 1934 77.2 |
| 1908 77.8 | 1917 77.1 | 1926 78.8 | 1935 78.4 |
| 1909 77.5 | 1918 77.7 | 1927 78.1 | 1936 78.0 |
| 1910 77.2 | 1919 78.1 | 1928 78.2 | 1937 78.7 |
| 1911 77.9 | 1920 77.6 | 1929 77.8 | 1938 |
| 1912 77.2 | 1921 77.5 | 1930 78.2 | 1939 |
| 1913 78.3 | 1922 77.5 | 1931 78.8 | 1940 |
| 1914 78.0 | 1923 77.7 | 1932 78.1 | 1941 |

Mean of this month for 32 years 77.9

Absolute maximum for this month for 32 years 95

Absolute minimum for this month for 32 years 68

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 32 years + 0.8

**EVAPORATION**

Total this month 3.258 Average daily .105 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 3.02 date 29-30

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 9.80 | 1899 11.99 | 1913 8.30 | 1927 8.36 |
| 1886 11.81 | 1900 20.27 | 1914 6.44 | 1928 10.70 |
| 1887 9.68 | 1901 13.77 | 1915 10.49 | 1929 7.89 |
| 1888 6.69 | 1902 - | 1916 10.17 | 1930 8.24 |
| 1889 | 1903 - | 1917 6.14 | 1931 9.25 |
| 1890 | 1904 - | 1918 9.16 | 1932 11.60 |
| 1891 | 1905 8.49 | 1919 12.11 | 1933 5.88 |
| 1892 | 1906 4.35 | 1920 6.48 | 1934 11.44 |
| 1893 | 1907 9.26 | 1921 13.86 | 1935 10.73 |
| 1894 | 1908 8.79 | 1922 9.03 | 1936 9.48 |
| 1895 | 1909 8.77 | 1923 15.02 | 1937 9.13 |
| 1896 | 1910 8.86 | 1924 10.38 | 1938 |
| 1897 | 1911 10.90 | 1925 7.37 | 1939 |
| 1898 13.48 | 1912 17.89 | 1926 9.93 | 1940 |

Average of this month for 41 years 10.06

Total from January 1, 1937 to date 58.20

Average from January 1, to date 54.77

Excess (+) or deficiency (−) from January 1, 1937 to date as compared with average of corresponding period + 3.43

**WIND**

Prevailing direction NW Total movement 3284 miles

Average hourly velocity 4.4 miles per hour

Maximum velocity (for five minutes) 21 miles per hour

from S on 24th

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 18 Cloudy 13

Days on which .01 inch, or more, of rain occurred 19

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light 12th

Fogs: Dense None

Thunderstorms 2/7/12/13/14/15/18/23/29

Earthquakes Total 18

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month March, 1938.

| | TEMPERATURE (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 70 | 78 | .339 | 0 | 68.4 | Pt.Cldy. |
| 2 | 86 | 72 | 77 | .335 | 0 | 69.2 | Pt.Cldy. |
| 3 | 90 | 70 | 78 | .145 | 0 | 68.2 | Clear |
| 4 | 90 | 68 | 77 | .335 | 0 | 68.3 | Pt.Cldy. |
| 5 | 88 | 68 | 77 | .275 | 0 | 69.5 | Clear |
| 6 | 89 | 68 | 78 | .259 | 0 | 69.3 | Clear |
| 7 | 90 | 69 | 79 | .162 | 0 | 67.7 | Pt.Cldy. |
| 8 | 90 | 69 | 78 | .358 | 0 | 67.8 | Clear |
| 9 | 90 | 68 | 78 | .288 | 0 | 68.0 | Clear |
| 10 | 90 | 70 | 79 | .350 | 0 | 68.2 | Clear |
| 11 | 90 | 70 | 78 | .295 | 0 | 70.2 | Clear |
| 12 | 89 | 71 | 78 | .173 | 0 | 72.6 | Clear |
| 13 | 88 | 71 | 77 | .134 | .25 | 73.5 | Pt.Cldy. |
| 14 | 90 | 71 | 80 | .142 | T | 72.1 | Pt.Cldy. |
| 15 | 91 | 72 | 80 | .161 | 0 | 71.9 | Pt.Cldy. |
| 16 | 91 | 72 | 79 | .272 | T | 72.5 | Pt.Cldy. |
| 17 | 89 | 71 | 78 | .181 | T | 73.1 | Pt.Cldy. |
| 18 | 90 | 72 | 79 | .197 | 0 | 72.3 | Pt.Cldy. |
| 19 | 90 | 72 | 80 | .216 | 0 | 71.5 | Pt.Cldy. |
| 20 | 91 | 72 | 80 | .260 | 0 | 71.9 | Pt.Cldy. |
| 21 | 91 | 72 | 80 | .221 | 0 | 72.9 | Pt.Cldy. |
| 22 | 90 | 74 | 80 | .236 | 0 | 71.8 | Pt.Cldy. |
| 23 | 92 | 73 | 80 | .303 | 0 | 71.9 | Clear |
| 24 | 87 | 72 | 79 | .317 | 0 | 71.2 | Pt.Cldy. |
| 25 | 91 | 72 | 80 | .248 | 0 | 71.2 | Pt.Cldy. |
| 26 | 89 | 72 | 79 | .228 | 0 | 71.9 | Clear |
| 27 | 91 | 72 | 80 | .221 | 0 | 72.8 | Clear |
| 28 | 90 | 73 | 81 | .358 | 0 | 74.2 | Pt.Cldy. |
| 29 | 91 | 74 | 82 | .264 | 0 | 74.5 | Pt.Cldy. |
| 30 | 92 | 75 | 82 | .252 | 0 | 75.2 | Pt.Cldy. |
| 31 | 92 | 76 | 82 | .205 | 0 | 75.4 | Pt.Cldy. |
| Total | 2785 | 2211 | * -- | 7.730 | .25 | * -- | |
| Mean | 89.8 | 71.3 | 79.1 | .249 | -- | 71.3 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)
Mean 29.858; highest 30.000 date 2d
Lowest 29.730 date 31st

**TEMPERATURE**

Highest 92 date 31; lowest 68 date 5
Greatest daily range 22 date 4
Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 80.2 | 1915 81.4 | 1924 79.9 | 1933 79.3 |
| 1907 79.3 | 1916 79.0 | 1925 78.1 | 1934 78.8 |
| 1908 80.5 | 1917 78.8 | 1926 80.6 | 1935 80.3 |
| 1909 79.8 | 1918 78.0 | 1927 80.3 | 1936 80.1 |
| 1910 77.5 | 1919 79.6 | 1928 80.4 | 1937 80.3 |
| 1911 78.3 | 1920 80.0 | 1929 79.4 | 1938 79.1 |
| 1912 81.1 | 1921 79.3 | 1930 80.5 | 1939 |
| 1913 80.1 | 1922 79.7 | 1931 81.3 | 1940 |
| 1914 80.8 | 1923 79.3 | 1932 79.7 | 1941 |

Mean of this month for 33 years 79.7
Absolute maximum for this month for 33 years 96
Absolute minimum for this month for 33 years 65
Average daily excess, (+) or deficiency (−) of his month as compared with mean of 33 years −0.6

**EVAPORATION**

Total this month 7.730 Average daily .249 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 25 date 13
Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1887 5.71 | 1899 2.41 | 1913 .43 | 1927 .01 |
| 1888 .16 | 1900 0 | 1914 T | 1928 4.07 |
| 1889 .35 | 1901 0 | 1915 T | 1929 2.19 |
| 1890 0 | 1902 - | 1916 .89 | 1930 .01 |
| 1891 - | 1903 - | 1917 .02 | 1931 .70 |
| 1892 - | 1904 - | 1918 1.25 | 1932 .13 |
| 1893 - | 1905 - | 1919 T | 1933 .46 |
| 1894 - | 1906 .05 | 1920 .09 | 1934 .20 |
| 1895 - | 1907 T | 1921 2.98 | 1935 T |
| 1896 - | 1908 .03 | 1922 1.02 | 1936 .36 |
| 1897 - | 1909 .18 | 1923 T | 1937 2.44 |
| 1898 - | 1910 1.83 | 1924 .07 | 1938 .25 |
| | 1911 .26 | 1925 .07 | 1939 |
| | 1912 .01 | 1926 0 | 1940 |

Average of this month for 40 years .72
Total from January 1, 1938 to date 2.46
Average from January 1, to date 2.41
Excess (+) or deficiency (−) from January 1, 1938 to date as compared with average of corresponding period +.05

**WIND**

Prevailing direction NW Total movement 5928 miles
Average hourly velocity 8.0 miles per hour
Maximum velocity (for five minutes) 25 miles per hour from NW on 2d

**(WEATHER No. of days)**

Clear 11 Pt. Cloudy 20 Cloudy 0
Days on which .01 inch, or more, of rain occurred 1

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms None
Earthquakes Total - 9

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month AUGUST, 1938

| | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 73 | 79 | .070 | .32 | 81.8 | Pt.Cldy. |
| 2 | 86 | 73 | 77 | .130 | 1.80 | 82.9 | Cldy. |
| 3 | 84 | 74 | 78 | .083 | .07 | 83.1 | Pt.Cldy |
| 4 | 84 | 73 | 78 | .079 | 0 | 83.7 | Pt.Cldy |
| 5 | 85 | 74 | 78 | .075 | .04 | 83.4 | Pt.Cldy |
| 6 | 86 | 72 | 77 | .106 | .02 | 82.8 | Pt.Cldy |
| 7 | 84 | 73 | 77 | .098 | .07 | 83.0 | Cldy |
| 8 | 85 | 73 | 78 | .110 | T | 83.0 | Pt.Cldy |
| 9 | 83 | 74 | 77 | .075 | .91 | 82.8 | Cldy |
| 10 | 84 | 73 | 76 | .079 | 1.82 | 82.7 | Cldy |
| 11 | 83 | 72 | 78 | .087 | 0 | 81.3 | Pt.Cldy |
| 12 | 86 | 75 | 79 | .094 | 0 | 83.5 | Pt.Cldy |
| 13 | 88 | 73 | 80 | .091 | T | 83.5 | Pt.Cldy |
| 14 | 86 | 75 | 78 | .102 | 1.21 | 83.2 | Cldy |
| 15 | 86 | 73 | 77 | .091 | .97 | 81.5 | Cldy |
| 16 | 84 | 73 | 76 | .074 | 1.40 | 82.1 | Cldy |
| 17 | 85 | 70 | 77 | .079 | 0 | 81.9 | Pt.Cldy |
| 18 | 88 | 72 | 77 | .095 | .41 | 81.7 | Cldy |
| 19 | 86 | 73 | 79 | .075 | .41 | 81.2 | Pt.Cldy |
| 20 | 88 | 74 | 79 | .079 | 0 | 82.2 | Pt.Cldy |
| 21 | 89 | 71 | 79 | .043 | 0 | 82.6 | Pt.Cldy |
| 22 | 85 | 73 | 78 | .205 | .11 | 81.3 | Cldy |
| 23 | 88 | 74 | 79 | .059 | .05 | 81.1 | Pt.Cldy |
| 24 | 85 | 74 | 79 | .078 | 0 | 82.0 | Pt.Cldy |
| 25 | 84 | 74 | 79 | .075 | .02 | 82.2 | Pt.Cldy |
| 26 | 85 | 75 | 78 | .103 | .22 | 82.3 | Cldy |
| 27 | 87 | 73 | 79 | .106 | .92 | 82.6 | Pt.Cldy |
| 28 | 83 | 74 | 78 | .079 | .24 | 82.2 | Cldy |
| 29 | 88 | 73 | 79 | .063 | 0 | 83.5 | Pt.Cldy |
| 30 | 86 | 75 | 79 | .083 | .25 | 83.9 | Cldy |
| 31 | 83 | 75 | 77 | .094 | .56 | 82.9 | Cldy |
| Sum | 2652 | 2273 | * | 2.760 | 11.82 | * | |
| Mean | 85.5 | 73.3 | 78.0 | .089 | | 82.5 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.838; highest 29.940 date 13

Lowest 29.720 date 28

**TEMPERATURE**

Highest 89 date 21; lowest 70 date 17

Greatest daily range 16 date 18

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 78.1 | 1915 79.0 | 1924 77.7 | 1933 78.8 |
| 1907 78.6 | 1916 77.1 | 1925 79.1 | 1934 79.4 |
| 1908 78.6 | 1917 77.6 | 1926 79.2 | 1935 77.7 |
| 1909 77.8 | 1918 79.1 | 1927 78.8 | 1936 78.8 |
| 1910 77.4 | 1919 79.5 | 1928 78.2 | 1937 79.6 |
| 1911 78.5 | 1920 78.7 | 1929 77.7 | 1938 78.0 |
| 1912 78.8 | 1921 78.8 | 1930 79.3 | 1939 |
| 1913 78.8 | 1922 79.1 | 1931 79.8 | 1940 |
| 1914 79.4 | 1923 78.7 | 1932 78.4 | 1941 |

Mean of this month for 33 years 78.6

Absolute maximum for this month for 33 years 94

Absolute minimum for this month for 33 years 68

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 33 years −0.6

**EVAPORATION**

Total this month 2.760 Average daily .089 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.02 date 9-10

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1888 7.24 | 1899 8.60 | 1913 8.20 | 1927 7.76 |
| 1890 11.46 | 1900 6.00 | 1914 6.09 | 1928 6.87 |
| 1891 4.49 | 1901 8.67 | 1915 15.24 | 1929 11.96 |
| 1892 4.05 | 1902 ---- | 1916 10.53 | 1930 4.34 |
| 1889 ---- | 1903 ---- | 1917 7.42 | 1931 4.28 |
| 1890 ---- | 1904 ---- | 1918 3.84 | 1932 7.61 |
| 1891 ---- | 1905 5.31 | 1919 5.82 | 1933 6.55 |
| 1892 ---- | 1906 6.43 | 1920 12.22 | 1934 4.52 |
| 1893 ---- | 1907 7.46 | 1921 9.51 | 1935 11.41 |
| 1894 ---- | 1908 11.48 | 1922 1.46 | 1936 6.14 |
| 1895 ---- | 1909 6.84 | 1923 5.37 | 1937 3.80 |
| 1896 ---- | 1910 12.00 | 1924 14.46 | 1938 11.82 |
| 1897 ---- | 1911 7.21 | 1925 10.83 | 1939 |
| 1898 6.89 | 1912 6.33 | 1926 10.45 | 1940 |

Average of this month for 42 years 7.83

Total from January 1, 1938 to date 45.25

Average from January 1, to date 36.75

Excess (+) or deficiency (−) from January 1, 1938 to date as compared with average of corresponding period + 8.50

**WIND**

Prevailing direction NW Total movement 3644 miles

Average hourly velocity 4.9 miles per hour

Maximum velocity (for five minutes) 20 miles per hour

from 8 on 10

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 18 Cloudy 13

Days on which .01 inch, or more, of rain occurred 21

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 13, 15, 16, 18, 23, 29, 30

Earthquakes Total - 16

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

066-6

MR 43091—Panama Canal—2-25-35—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month OCTOBER, 1938

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 73 | 77 | .063 | .07 | 83.8 | Pt.Cldy. |
| 2 | 86 | 72 | 77 | .059 | 0 | 84.5 | Pt.Cldy |
| 3 | 88 | 74 | 78 | .138 | .08 | 84.3 | Pt.Cldy |
| 4 | 84 | 74 | 78 | .078 | .02 | 84.2 | Pt.Cldy |
| 5 | 86 | 74 | 78 | .087 | 1.79 | 83.8 | Cldy. |
| 6 | 90 | 75 | 79 | .067 | .08 | 83.5 | Cldy. |
| 7 | 87 | 74 | 78 | .091 | .16 | 83.6 | Pt.Cldy |
| 8 | 86 | 73 | 79 | .078 | 0 | 83.6 | Cldy. |
| 9 | 87 | 74 | 79 | .083 | .25 | 83.8 | Pt.Cldy. |
| 10 | 85 | 74 | 80 | .098 | 0 | 84.1 | Pt.Cldy. |
| 11 | 85 | 75 | 78 | .111 | .35 | 84.1 | Cldy. |
| 12 | 82 | 72 | 75 | .090 | .01 | 83.0 | Cldy. |
| 13 | 81 | 72 | 76 | .067 | .16 | 83.0 | Pt.Cldy. |
| 14 | 81 | 73 | 77 | .075 | .14 | 82.8 | Cldy. |
| 15 | 85 | 71 | 77 | .090 | .08 | 82.9 | Pt.Cldy |
| 16 | 84 | 74 | 77 | .067 | 2.02 | 82.4 | Pt.Cldy |
| 17 | 85 | 72 | 77 | .118 | .15 | 83.8 | Pt.Cldy |
| 18 | 85 | 73 | 76 | .083 | 1.34 | 84.1 | Cldy. |
| 19 | 83 | 72 | 76 | .122 | .69 | 82.3 | Cldy. |
| 20 | 83 | 73 | 77 | .032 | 0 | 82.5 | Pt.Cldy. |
| 21 | 86 | 71 | 78 | .086 | .01 | 83.3 | Pt.Cldy. |
| 22 | 88 | 74 | 79 | .087 | .48 | 83.5 | Pt.Cldy. |
| 23 | 84 | 74 | 77 | .090 | 0 | 83.4 | Pt.Cldy |
| 24 | 85 | 73 | 77 | .060 | .35 | 83.0 | Pt.Cldy |
| 25 | 83 | 73 | 78 | .118 | .07 | 82.9 | Cldy. |
| 26 | 84 | 74 | 77 | .102 | .56 | 82.5 | Pt.Cldy |
| 27 | 85 | 72 | 76 | .094 | .92 | 82.2 | Pt.Cldy |
| 28 | 84 | 74 | 75 | .071 | 1.28 | 81.7 | Cldy. |
| 29 | 84 | 72 | 75 | .075 | 1.63 | 81.3 | Cldy. |
| 30 | 83 | 72 | 77 | .060 | .02 | 81.4 | Pt.Cldy. |
| 31 | 88 | 72 | 79 | .098 | 0 | 82.6 | Pt.Cldy. |
| Sum | 2631 | 2265 | * | 2.638 | 12.72 | * | |
| Mean | 84.9 | 73.1 | 77.4 | .085 | — | 83.2 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.844; highest 29.970 date 26

Lowest 29.750 date 3

**TEMPERATURE**

Highest 90 date 6; lowest 71 date 15

Greatest daily range 16 date 31

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 78.0 | 1915 77.8 | 1924 77.6 | 1933 77.8 |
| 1907 77.5 | 1916 76.8 | 1925 78.4 | 1934 77.2 |
| 1908 77.8 | 1917 77.1 | 1926 78.8 | 1935 78.4 |
| 1909 77.5 | 1918 77.7 | 1927 78.1 | 1936 78.0 |
| 1910 77.2 | 1919 78.1 | 1928 78.2 | 1937 78.7 |
| 1911 77.9 | 1920 77.8 | 1929 77.8 | 1938 77.4 |
| 1912 77.2 | 1921 77.5 | 1930 78.2 | 1939 |
| 1913 78.3 | 1922 77.5 | 1931 78.8 | 1940 |
| 1914 78.0 | 1923 77.7 | 1932 78.1 | 1941 |

Mean of this month for 33 years 77.9

Absolute maximum for this month for 33 years 95

Absolute minimum for this month for 33 years 68

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 33 years −0.5

**EVAPORATION**

Total this month 2.638 Average daily .085 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.13 date 16 & 17

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 9.80 | 1899 11.99 | 1913 8.30 | 1927 8.36 |
| 1886 11.81 | 1900 20.27 | 1914 6.44 | 1928 10.70 |
| 1887 9.68 | 1901 13.77 | 1915 10.49 | 1929 7.89 |
| 1888 6.69 | 1902 ------ | 1916 10.17 | 1930 8.24 |
| 1889 | 1903 ------ | 1917 5.14 | 1931 9.26 |
| 1890 | 1904 ------ | 1918 9.16 | 1932 11.60 |
| 1891 | 1905 8.49 | 1919 12.11 | 1933 5.88 |
| 1892 | 1906 4.35 | 1920 6.48 | 1934 11.44 |
| 1893 | 1907 9.26 | 1921 13.86 | 1935 10.73 |
| 1894 | 1908 8.79 | 1922 9.03 | 1936 9.48 |
| 1895 | 1909 8.77 | 1923 15.02 | 1937 9.13 |
| 1896 | 1910 8.86 | 1924 10.38 | 1938 12.72 |
| 1897 | 1911 10.90 | 1925 7.37 | 1939 |
| 1898 13.48 | 1912 17.89 | 1926 9.23 | 1940 |

Average of this month for 42 years 10.12

Total from January 1, 1938 to date 66.20

Average from January 1, to date 55.03

Excess (+) or deficiency (−) from January 1, 1938 to date as compared with average of corresponding period + 11.17

**WIND**

Prevailing direction NW Total movement 3376 miles

Average hourly velocity 4.5 miles per hour

Maximum velocity (for five minutes) 25 miles per hour from S on 28

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 20 Cloudy 11

Days on which .01 inch, or more, of rain occurred 25

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light 21 & 24

Fogs: Dense 21

Thunderstorms 5, 11, 18 & 22

Earthquakes Total - 14

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS ; Month NOVEMBER, 1938

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 73 | 78 | .102 | 0 | 82.7 | Pt. Cldy |
| 2 | 86 | 74 | 79 | .142 | 0 | 83.2 | Pt. Cldy |
| 3 | 82 | 74 | 78 | .122 | .24 | 83.2 | Pt. Cldy |
| 4 | 84 | 75 | 78 | .032 | .03 | 83.2 | Pt. Cldy |
| 5 | 87 | 73 | 77 | .126 | 1.09 | 82.1 | Pt. Cldy |
| 6 | 85 | 74 | 78 | .051 | .06 | 82.1 | Pt. Cldy |
| 7 | 85 | 73 | 78 | .071 | 2.25 | 81.8 | Cloudy |
| 8 | 81 | 74 | 77 | .102 | .62 | 80.0 | Cloudy |
| 9 | 85 | 72 | 77 | .067 | .12 | 81.8 | Pt. Cldy |
| 10 | 82 | 72 | 76 | .055 | .74 | 81.8 | Cloudy |
| 11 | 88 | 71 | 78 | .079 | T | 81.6 | Pt. Cldy |
| 12 | 85 | 71 | 78 | .055 | .29 | 82.5 | Pt. Cldy |
| 13 | 85 | 72 | 78 | .106 | 0 | 83.2 | Pt. Cldy |
| 14 | 85 | 73 | 78 | .067 | .56 | 83.7 | Pt. Cldy |
| 15 | 84 | 72 | 77 | .169 | 1.72 | 81.2 | Cloudy |
| 16 | 80 | 73 | 75 | .059 | .40 | 79.8 | Cloudy |
| 17 | 85 | 74 | 77 | .052 | .23 | 81.2 | Pt. Cldy |
| 18 | 89 | 73 | 78 | .067 | T | 81.7 | Pt. Cldy |
| 19 | 88 | 73 | 79 | .035 | 0 | 81.5 | Pt. Cldy |
| 20 | 85 | 73 | 77 | .181 | .81 | 80.7 | Pt. Cldy |
| 21 | 85 | 72 | 77 | .142 | .05 | 80.2 | Pt. Cldy |
| 22 | 84 | 73 | 76 | .016 | .21 | 81.2 | Cloudy |
| 23 | 87 | 73 | 78 | .063 | .51 | 81.1 | Pt. Cldy |
| 24 | 85 | 73 | 78 | .071 | .03 | 81.4 | Pt. Cldy |
| 25 | 86 | 74 | 77 | .106 | .29 | 81.1 | Cloudy |
| 26 | 84 | 73 | 77 | .063 | .49 | 80.5 | Cloudy |
| 27 | 85 | 72 | 76 | .126 | .26 | 80.3 | Pt. Cldy |
| 28 | 82 | 72 | 77 | .040 | .12 | 80.3 | Cloudy |
| 29 | 86 | 72 | 78 | .102 | T | 80.7 | Pt. Cldy |
| 30 | 86 | 73 | 78 | .154 | .11 | 80.9 | Pt. Cldy |
| 31 | | | | | | | |
| Σ | 2548 | 2186 | * -- | 2.623 | 11.23 | * -- | |
| N | 84.9 | 72.9 | 77.4 | .087 | | 81.6 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.816 ; highest 29.950 date 29

Lowest 29.670 date 19

**TEMPERATURE**

Highest 89 date 18 ; lowest 71 date 11

Greatest daily range 17 date 11

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 77.7 | 1915 76.9 | 1924 76.7 | 1933 76.5 |
| 1907 77.7 | 1916 76.5 | 1925 78.6 | 1934 75.9 |
| 1908 76.9 | 1917 76.1 | 1926 77.7 | 1935 77.0 |
| 1909 75.7 | 1918 78.2 | 1927 78.3 | 1936 78.8 |
| 1910 77.3 | 1919 77.4 | 1928 76.9 | 1937 77.6 |
| 1911 77.6 | 1920 78.2 | 1929 78.3 | 1938 77.4 |
| 1912 77.1 | 1921 78.5 | 1930 79.2 | 1939 |
| 1913 77.4 | 1922 77.0 | 1931 76.4 | 1940 |
| 1914 78.0 | 1923 78.6 | 1932 77.3 | 1941 |

Mean of this month for 33 years 77.5

Absolute maximum for this month for 33 years 94

Absolute minimum for this month for 33 years 67

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 33 years -0.1

**EVAPORATION**

Total this month 2.623 Average daily .087 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.76 date 7-8

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 19.21 | 1899 8.93 | 1913 10.63 | 1927 5.82 |
| 1886 6.46 | 1900 13.01 | 1914 10.35 | 1928 20.51 |
| 1887 9.72 | 1901 12.40 | 1915 7.05 | 1929 12.62 |
| 1888 10.91 | 1902 -- | 1916 8.77 | 1930 5.12 |
| 1889 -- | 1903 -- | 1917 13.77 | 1931 12.60 |
| 1890 -- | 1904 -- | 1918 9.61 | 1932 10.18 |
| 1891 -- | 1905 8.81 | 1919 4.97 | 1933 13.28 |
| 1892 -- | 1906 13.57 | 1920 19.22 | 1934 12.89 |
| 1893 -- | 1907 10.51 | 1921 7.11 | 1935 19.70 |
| 1894 -- | 1908 9.12 | 1922 8.44 | 1936 8.29 |
| 1895 -- | 1909 15.14 | 1923 8.81 | 1937 10.18 |
| 1896 -- | 1910 4.29 | 1924 12.63 | 1938 11.23 |
| 1897 -- | 1911 7.57 | 1925 3.52 | 1939 |
| 1898 11.13 | 1912 6.38 | 1926 9.63 | 1940 |

Average of this month for 42 years 10.57

Total from January 1, 1938 to date 77.43

Average from January 1, to date 65.60

Excess (+) or deficiency (−) from January 1, 1938 to date as compared with average of corresponding period +11.83

**WIND**

Prevailing direction NW Total movement 3088 miles

Average hourly velocity 4.3 miles per hour

Maximum velocity (for five minutes) 20 miles per hour from NW on 19

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 21 Cloudy 9

Days on which .01 inch, or more, of rain occurred 23

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar NONE

Fogs: Light 9, 11, 12, 15, 22, 23

Fogs: Dense 13

Thunderstorms 5, 7, 14, 18, 22, 25

Earthquakes Total, 11

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month January, 1939

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 72 | 78 | .118 | .24 | 80.6 | Pt. Cldy |
| 2 | 88 | 72 | 78 | .138 | 0 | 80.2 | " |
| 3 | 88 | 71 | 78 | .189 | T | 79.8 | " |
| 4 | 88 | 72 | 78 | .138 | 0 | 80.0 | " |
| 5 | 88 | 72 | 78 | .240 | 0 | 79.8 | Clear |
| 6 | 88 | 72 | 78 | .138 | T | 79.1 | Pt Cldy |
| 7 | 86 | 70 | 78 | .216 | 0 | 78.8 | " |
| 8 | 86 | 71 | 78 | .236 | .06 | 78.8 | " |
| 9 | 87 | 71 | 78 | .248 | 0 | 78.8 | " |
| 10 | 87 | 69 | 77 | .209 | 0 | 78.8 | " |
| 11 | 89 | 70 | 77 | .236 | .11 | 78.8 | " |
| 12 | 88 | 71 | 78 | .177 | .02 | 79.5 | " |
| 13 | 87 | 73 | 79 | .130 | 0 | 80.2 | " |
| 14 | 86 | 72 | 78 | .220 | 0 | 79.7 | " |
| 15 | 86 | 73 | 79 | .111 | 0 | 79.7 | " |
| 16 | 88 | 73 | 79 | .189 | 0 | 80.3 | " |
| 17 | 88 | 74 | 80 | .232 | 0 | 80.9 | " |
| 18 | 88 | 73 | 79 | .134 | 0 | 81.2 | " |
| 19 | 86 | 72 | 78 | .263 | 0 | 80.5 | " |
| 20 | 87 | 75 | 78 | .260 | 0 | 80.7 | " |
| 21 | 87 | 71 | 78 | .295 | 0 | 80.2 | Clear |
| 22 | 89 | 72 | 79 | .272 | 0 | 80.5 | Pt Cldy |
| 23 | 88 | 71 | 78 | .288 | 0 | 79.4 | " |
| 24 | 87 | 70 | 78 | .315 | 0 | 79.2 | Clear |
| 25 | 85 | 72 | 77 | .275 | 0 | 78.4 | Pt Cldy |
| 26 | 86 | 68 | 76 | .331 | 0 | 77.5 | Clear |
| 27 | 87 | 69 | 77 | .225 | 0 | 76.2 | " |
| 28 | 87 | 70 | 77 | .255 | 0 | 75.8 | " |
| 29 | 88 | 70 | 78 | .209 | 0 | 76.3 | " |
| 30 | 89 | 70 | 78 | .216 | 0 | 76.3 | " |
| 31 | 87 | 72 | 78 | .266 | 0 | 76.3 | Pt Cldy |
| Total | 2707 | 2215 | * — | 6.769 | .43 | * -- | |
| Mean | 87.3 | 71.4 | 78.0 | .218 | -- | 79.1 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly) Mean 29.837; highest 29.930 date 25

Lowest 29.730 date 23

**TEMPERATURE**

Highest 89 date 22; lowest 68 date 26

Greatest daily range 19 date 30

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.0 | 1915 79.6 | 1924 78.8 | 1933 77.9 |
| 1907 78.1 | 1916 78.4 | 1925 76.9 | 1934 77.2 |
| 1908 79.4 | 1917 76.7 | 1926 79.3 | 1935 78.1 |
| 1909 77.4 | 1918 76.9 | 1927 78.5 | 1936 79.1 |
| 1910 77.1 | 1919 78.2 | 1928 78.6 | 1937 78.6 |
| 1911 78.2 | 1920 78.9 | 1929 77.8 | 1938 78.7 |
| 1912 78.9 | 1921 78.2 | 1930 78.2 | 1939 78.0 |
| 1913 78.8 | 1922 78.3 | 1931 79.5 | 1940 |
| 1914 78.5 | 1923 77.1 | 1932 78.4 | 1941 |

Mean of this month for 34 years 78.3

Absolute maximum for this month for 34 years 93

Absolute minimum for this month for 34 years 63

Average daily deficiency (−) of his month as compared with mean of 34 years −0.3

**EVAPORATION**

Total this month 6.769 Average daily .218 inches

**PRECIPITATION**

Greatest precipitation in 24 hours .24 date 1

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 .04 | 1899 5.61 | 1913 .63 | 1927 .18 |
| 1886 1.89 | 1900 .76 | 1914 .32 | 1928 .02 |
| 1887 .16 | 1901 0. | 1915 2.12 | 1929 .17 |
| 1888 0. | 1902 - | 1916 1.41 | 1930 .05 |
| 1889 - | 1903 - | 1917 .13 | 1931 T |
| 1890 - | 1904 - | 1918 1.78 | 1932 .38 |
| 1891 - | 1905 - | 1919 .28 | 1933 1.63 |
| 1892 - | 1906 .43 | 1920 T | 1934 4.04 |
| 1893 | 1907 .29 | 1921 .88 | 1935 .88 |
| 1894 - | 1908 .12 | 1922 1.83 | 1936 .83 |
| 1895 - | 1909 2.90 | 1923 .80 | 1937 5.07 |
| 1896 - | 1910 1.22 | 1924 T | 1938 2.20 |
| 1897 - | 1911 .83 | 1925 1.44 | 1939 .43 |
| 1898 | 1912 T | 1926 .01 | 1940 |

Average of this month for 41 years 1.02

Total from January 1, 1939 to date .43

Average from January 1, to date 1.02

Excess (+) or deficiency (−) from January 1, 1939 to date as compared with average of corresponding period −.59

**WIND**

Prevailing direction NW Total movement 6046 miles

Average hourly velocity 8.1 miles per hour

Maximum velocity (for five minutes) 25 miles per hour from N on 27

**(WEATHER No. of days)**

Clear 8 Pt. Cloudy 23 Cloudy 0

Days on which .01 inch, or more, of rain occurred 4

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar 0

Fogs: Light 0

Fogs: Dense 0

Thunderstorms 0

Earthquakes 11, 18, 20(2), 22, 24, 27(4), 29(2), 30 and 31(2)

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

87374

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month December, 1939

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 76 | 82 | .151 | 0 | 80.8 | Pt.cldy |
| 2 | 90 | 76 | 82 | .197 | 0 | 81.5 | Pt.cldy |
| 3 | 90 | 76 | 81 | .162 | 0 | 82.7 | Pt.cldy |
| 4 | 89 | 76 | 80 | .094 | .01 | 82.3 | Pt.cldy |
| 5 | 88 | 76 | 79 | .079 | 1.63 | 81.5 | Pt.cldy |
| 6 | 87 | 75 | 80 | .126 | T | 81.1 | Pt.cldy |
| 7 | 84 | 76 | 80 | .110 | 0 | 80.1 | Cloudy |
| 8 | 88 | 74 | 80 | .077 | 0 | 80.2 | Pt.cldy |
| 9 | 89 | 74 | 80 | .094 | 0 | 80.8 | Pt.cldy |
| 10 | 87 | 74 | 79 | .134 | T | 80.8 | Pt.cldy |
| 11 | 86 | 73 | 78 | .162 | T | 81.2 | Pt.cldy |
| 12 | 86 | 73 | 78 | .145 | .06 | 81.5 | Cloudy |
| 13 | 86 | 73 | 79 | .103 | .05 | 80.9 | Pt.cldy |
| 14 | 89 | 73 | 77 | .157 | .67 | 80.6 | Cloudy |
| 15 | 82 | 73 | 77 | .103 | .32 | 80.2 | Cloudy |
| 16 | 85 | 73 | 78 | .063 | 0 | 81.0 | Pt.cldy |
| 17 | 87 | 73 | 78 | .090 | 0 | 81.5 | Pt.cldy |
| 18 | 87 | 73 | 79 | .098 | 0 | 81.4 | Pt.cldy |
| 19 | 87 | 73 | 79 | .138 | T | 81.9 | Pt.cldy |
| 20 | 86 | 74 | 79 | .099 | T | 80.9 | Pt.cldy |
| 21 | 85 | 74 | 79 | .157 | .01 | 80.3 | Cloudy |
| 22 | 86 | 74 | 80 | .095 | .22 | 80.7 | Cloudy |
| 23 | 86 | 75 | 79 | .087 | .44 | 81.1 | Cloudy |
| 24 | 88 | 75 | 80 | .110 | 0 | 81.3 | Pt.cldy |
| 25 | 86 | 75 | 79 | .153 | 0 | 81.7 | Pt.cldy |
| 26 | 86 | 73 | 79 | .193 | 0 | 81.8 | Pt.cldy |
| 27 | 85 | 74 | 78 | .142 | .03 | 81.1 | Pt.cldy |
| 28 | 87 | 73 | 78 | .114 | 1.94 | 80.9 | Cloudy |
| 29 | 89 | 75 | 80 | .067 | 0 | 81.0 | Cloudy |
| 30 | 87 | 75 | 78 | .137 | .67 | 81.0 | Pt.cldy |
| 31 | 86 | 73 | 77 | .091 | .18 | 80.8 | Cloudy |
| Sum | 2693 | 2300 | *— | 3.728 | 6.23 | *---- | |
| Mean | 86.9 | 74.2 | 79.1 | .120 | ---- | 81.1 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

### ATMOSPHERIC PRESSURE (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.834; highest 29.950 date 31

Lowest 29.680 date 1

### TEMPERATURE

Highest 90 date 2; lowest 73 date 12

Greatest daily range 16 date 14

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1905 77.4 | 1915 78.5 | 1924 77.7 | 1933 76.9 |
| 1907 79.1 | 1916 77.6 | 1925 79.5 | 1934 78.7 |
| 1908 77.6 | 1917 76.7 | 1926 77.7 | 1935 78.3 |
| 1909 76.6 | 1918 79.6 | 1927 78.6 | 1936 78.1 |
| 1910 77.3 | 1919 78.4 | 1928 78.1 | 1937 77.8 |
| 1911 79.3 | 1920 78.5 | 1929 78.3 | 1938 77.3 |
| 1912 78.7 | 1921 78.3 | 1930 79.6 | 1939 79.1 |
| 1913 78.3 | 1922 77.4 | 1931 78.5 | 1940 -- |
| 1914 79.3 | 1923 78.2 | 1932 77.9 | 1941 -- |

Mean of this month for 34 years 78.2

Absolute maximum for this month for 34 years 94

Absolute minimum for this month for 34 years 66

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 34 years +0.9

### EVAPORATION

Total this month 3.728 Average daily .120 inches

### PRECIPITATION

Greatest precipitation in 24 hours 1.94 date 28

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 -- | 1899 4.35 | 1913 4.84 | 1927 2.95 |
| 1886 -- | 1900 1.85 | 1914 8.28 | 1928 6.95 |
| 1887 -- | 1901 2.32 | 1915 3.60 | 1929 4.17 |
| 1888 -- | 1902 -- | 1916 5.86 | 1930 2.44 |
| 1889 7.98 | 1903 -- | 1917 4.09 | 1931 4.96 |
| 1890 8.51 | 1904 -- | 1918 .55 | 1932 2.66 |
| 1891 8.48 | 1905 4.04 | 1919 1.81 | 1933 7.35 |
| 1892 8.01 | 1906 5.52 | 1920 1.94 | 1934 2.71 |
| 1893 -- | 1907 3.46 | 1921 5.19 | 1935 4.31 |
| 1894 -- | 1908 4.16 | 1922 3.82 | 1936 1.84 |
| 1895 -- | 1909 12.39 | 1923 3.94 | 1937 16.81 |
| 1896 -- | 1910 10.63 | 1924 8.31 | 1938 7.91 |
| 1897 -- | 1911 1.99 | 1925 1.88 | 1939 6.23 |
| 1898 1.89 | 1912 3.27 | 1926 8.38 | 1940 -- |

Average of this month for 43 years 4.67

Total from January 1, 1939 to date 62.64

Average from January 1, to date 70.06

Excess (+) or deficiency (−) from January 1, 1939 to date as compared with average of corresponding period -7.42

### WIND

Prevailing direction NW Total movement 4616 miles

Average hourly velocity 6.2 miles per hour

Maximum velocity (for five minutes) 21 miles per hour

from N on 24

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 21 Cloudy 10

Days on which .01 inch, or more, of rain occurred 13

### MISCELLANEOUS PHENOMENA (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 4-5-26-28

Earthquakes 2(3),5,6,8,17,19,21(3),22(4), 23(2), 26(5), 27, 29(2), 31(2)

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month January, 1940

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 83 | 72 | 77 | .067 | .37 | 80.8 | Cloudy |
| 2 | 86 | 74 | 78 | .114 | .90 | 80.6 | " |
| 3 | 86 | 73 | 77 | .040 | 1.49 | 80.6 | " |
| 4 | 88 | 70 | 78 | .039 | 0 | 80.9 | Pt Cldy |
| 5 | 88 | 73 | 79 | .134 | 0 | 81.2 | " |
| 6 | 87 | 73 | 79 | .126 | 0 | 81.3 | Cloudy |
| 7 | 87 | 74 | 79 | .165 | .02 | 81.2 | Pt Cldy |
| 8 | 87 | 74 | 79 | .122 | 0 | 80.6 | " |
| 9 | 90 | 74 | 80 | .134 | 0 | 80.7 | " |
| 10 | 89 | 74 | 80 | .197 | 0 | 81.0 | " |
| 11 | 88 | 73 | 79 | .224 | 0 | 81.2 | " |
| 12 | 89 | 71 | 79 | .260 | 0 | 80.9 | " |
| 13 | 90 | 72 | 80 | .205 | 0 | 80.6 | " |
| 14 | 89 | 72 | 79 | .224 | 0 | 80.3 | Clear |
| 15 | 88 | 72 | 78 | .209 | 0 | 79.2 | " |
| 16 | 88 | 73 | 79 | .252 | T | 79.5 | Pt Cldy |
| 17 | 89 | 71 | 78 | .259 | 0 | 78.6 | " |
| 18 | 88 | 70 | 78 | .197 | 0 | 78.3 | " |
| 19 | 88 | 70 | 78 | .162 | .19 | 77.8 | " |
| 20 | 89 | 72 | 79 | .110 | 0 | 77.0 | " |
| 21 | 88 | 72 | 79 | .232 | 0 | 75.9 | " |
| 22 | 89 | 73 | 81 | .339 | 0 | 74.4 | " |
| 23 | 89 | 74 | 80 | .259 | 0 | 73.9 | " |
| 24 | 86 | 74 | 79 | .221 | T | 73.7 | " |
| 25 | 89 | 73 | 80 | .209 | 0 | 73.6 | " |
| 26 | 88 | 71 | 78 | .236 | 0 | 72.7 | Clear |
| 27 | 87 | 68 | 78 | .271 | 0 | 73.1 | Pt Cldy |
| 28 | 84 | 72 | 77 | .225 | .06 | 72.7 | " |
| 29 | 84 | 72 | 77 | .220 | .11 | 73.0 | " |
| 30 | 88 | 71 | 79 | .213 | 0 | 73.2 | Clear |
| 31 | 86 | 70 | 78 | .252 | 0 | 73.2 | Pt Cldy |
| Sum | 2715 | 2237 | * -- | 5.917 | 3.14 | * -- | |
| Mean | 87.6 | 72.2 | 78.7 | .191 | - | 77.8 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

*cwk

### ATMOSPHERIC PRESSURE (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.865; highest 30.020 date 28th

Lowest 29.680 date 13th

### TEMPERATURE

Highest 90 date 9; lowest 68 date 27

Greatest daily range 19 date 27

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.0 | 1915 79.6 | 1924 78.8 | 1933 77.9 |
| 1907 78.1 | 1916 78.4 | 1925 76.9 | 1934 77.2 |
| 1908 79.4 | 1917 76.7 | 1926 79.3 | 1935 78.1 |
| 1909 77.4 | 1918 76.9 | 1927 78.5 | 1936 79.1 |
| 1910 77.1 | 1919 78.2 | 1928 78.6 | 1937 78.6 |
| 1911 78.2 | 1920 78.9 | 1929 77.8 | 1938 78.7 |
| 1912 78.9 | 1921 78.2 | 1930 78.2 | 1939 78.0 |
| 1913 78.8 | 1922 78.3 | 1931 79.5 | 1940 78.7 |
| 1914 78.5 | 1923 77.1 | 1932 78.4 | 1941 -- |

Mean of this month for 35 years 78.3

Absolute maximum for this month for 35 years 93

Absolute minimum for this month for 35 years 63

Average daily excess. (+) or deficiency (−) of his month as compared with mean of 35 years +0.4

### EVAPORATION

Total this month 5.917 Average daily .191 inches

### PRECIPITATION

Greatest precipitation in 24 hours 1.88 date 2-3

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 | 1899 5.61 | 1913 .63 | 1927 .18 |
| 1886 | 1900 .76 | 1914 .32 | 1928 .02 |
| 1887 | 1901 0 | 1915 2.12 | 1929 .17 |
| 1888 | 1902 -- | 1916 1.41 | 1930 .05 |
| 1889 .04 | 1903 -- | 1917 .13 | 1931 T |
| 1890 1.89 | 1904 -- | 1918 1.78 | 1932 .38 |
| 1891 .16 | 1905 -- | 1919 .28 | 1933 1.63 |
| 1892 0 | 1906 .43 | 1920 T | 1934 4.04 |
| 1893 -- | 1907 .29 | 1921 .88 | 1935 .88 |
| 1894 -- | 1908 .12 | 1922 1.73 | 1936 .83 |
| 1895 -- | 1909 2.90 | 1923 .80 | 1937 5.07 |
| 1896 -- | 1910 1.22 | 1924 T | 1938 2.20 |
| 1897 -- | 1911 .83 | 1925 1.44 | 1939 .43 |
| 1898 -- | 1912 T | 1926 .01 | 1940 3.14 |

Average of this month for 42 years 1.07

Total from January 1, 1940 to date 3.14

Average from January 1, to date 1.07

Excess (+) or deficiency (−) from January 1, 1940 to date as compared with average of corresponding period +2.07

### WIND

Prevailing direction NW Total movement 6056 miles

Average hourly velocity 8.1 miles per hour

Maximum velocity (for five minutes) 24 miles per hour from N on 29th

### (WEATHER No. of days)

Clear 4 Pt. Cloudy 23 Cloudy 4

Days on which .01 inch, or more, of rain occurred 7

### MISCELLANEOUS PHENOMENA (DATES OF)

Halos: Lunar None

Fogs: Light 4th

Fogs: Dense None

Thunderstorms None

Earthquakes Total: 24

066-6

# THE PANAMA CANAL

MR 43091—Panama Canal—2-25-35—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month FEBRUARY, 1940, 193x

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 71 | 79 | .181 | 0 | 73.0 | Pt.Cldy. |
| 2 | 90 | 70 | 78 | .244 | T | 73.3 | Clear |
| 3 | 87 | 70 | 77 | .130 | .03 | 72.8 | Pt.Cldy. |
| 4 | 89 | 71 | 78 | .118 | .03 | 72.6 | Clear |
| 5 | 88 | 73 | 80 | .154 | 0 | 72.7 | Pt.Cldy. |
| 6 | 88 | 75 | 80 | .177 | 0 | 74.1 | Pt.Cldy. |
| 7 | 89 | 75 | 80 | .149 | .04 | 74.5 | Pt.Cldy. |
| 8 | 90 | 74 | 81 | .201 | 0 | 72.8 | Pt.Cldy. |
| 9 | 90 | 75 | 81 | .189 | 0 | 73.6 | Pt.Cldy. |
| 10 | 90 | 74 | 81 | .205 | 0 | 74.2 | Clear |
| 11 | 89 | 74 | 80 | .200 | 0 | 73.0 | Clear |
| 12 | 90 | 73 | 80 | .210 | 0 | 73.2 | Pt.Cldy. |
| 13 | 90 | 75 | 81 | .221 | 0 | 73.8 | Pt.Cldy. |
| 14 | 90 | 74 | 81 | .200 | 0 | 74.4 | Clear |
| 15 | 92 | 76 | 82 | .197 | 0 | 73.5 | Clear |
| 16 | 90 | 74 | 81 | .260 | 0 | 73.5 | Clear |
| 17 | 90 | 74 | 80 | .275 | 0 | 75.3 | Pt.Cldy. |
| 18 | 90 | 75 | 82 | .209 | 0 | 76.0 | Pt.Cldy. |
| 19 | 92 | 76 | 83 | .189 | 0 | 75.9 | Clear |
| 20 | 89 | 74 | 82 | .327 | 0 | 75.3 | Pt.Cldy. |
| 21 | 88 | 75 | 80 | .264 | 0 | 74.6 | Pt.Cldy. |
| 22 | 88 | 77 | 80 | .173 | T | 74.3 | Pt.Cldy. |
| 23 | 89 | 74 | 81 | .197 | 0 | 74.2 | Pt.Cldy. |
| 24 | 90 | 74 | 81 | .248 | 0 | 75.3 | Pt.Cldy. |
| 25 | 90 | 74 | 81 | .225 | 0 | 76.2 | Clear |
| 26 | 90 | 75 | 80 | .236 | 0 | 75.5 | Pt.Cldy. |
| 27 | 88 | 72 | 79 | .279 | .01 | 74.1 | Pt.Cldy. |
| 28 | 93 | 73 | 82 | .209 | 0 | 73.9 | Pt.Cldy |
| 29 | 90 | 73 | 80 | .228 | 0 | 74.9 | Clear |
| 30 | - | - | - | - | - | | |
| 31 | - | - | - | - | - | | |
| Σ | 2598 | 2140 | * - | 6.095 | 0.11 | * - | |
| * | 89.6 | 73.8 | 80.4 | 0.210 | - | 74.2 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

### ATMOSPHERIC PRESSURE (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.839; highest 29.990 date 22

Lowest 29.690 date 10

### TEMPERATURE

Highest 93 date 28; lowest 70 date 2

Greatest daily range 20 date 28

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.4 | 1915 79.4 | 1924 78.5 | 1933 78.3 |
| 1907 76.7 | 1916 77.6 | 1925 77.1 | 1934 77.1 |
| 1908 79.9 | 1917 76.4 | 1926 80.0 | 1935 78.1 |
| 1909 78.4 | 1918 78.1 | 1927 77.9 | 1936 78.9 |
| 1910 77.5 | 1919 77.9 | 1928 80.0 | 1937 78.9 |
| 1911 77.9 | 1920 78.8 | 1929 78.8 | 1938 79.2 |
| 1912 79.3 | 1921 78.1 | 1930 78.3 | 1939 77.2 |
| 1913 78.5 | 1922 79.7 | 1931 79.8 | 1940 80.4 |
| 1914 80.0 | 1923 77.9 | 1932 78.3 | 1941 — |

Mean of this month for 35 years 78.5

Absolute maximum for this month for 35 years 95

Absolute minimum for this month for 35 years 64

Average daily excess, (+) ~~or deficiency (—)~~ of his month as compared with mean of 35 years +1.9

### EVAPORATION

Total this month 6.095 Average daily 0.210 inches

### PRECIPITATION

Greatest precipitation in 24 hours .04 date 7

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 - | 1899 1.17 | 1913 0.22 | 1927 1.99 |
| 1886 - | 1900 0 | 1914 0.02 | 1928 0.32 |
| 1887 - | 1901 1.11 | 1915 2.96 | 1929 0.02 |
| 1888 - | 1902 - | 1916 1.48 | 1930 0.85 |
| 1889 2.52 | 1903 - | 1917 0.19 | 1931 T |
| 1890 0.12 | 1904 - | 1918 T | 1932 0.46 |
| 1891 0.16 | 1905 - | 1919 T | 1933 0.30 |
| 1892 0.12 | 1906 0.33 | 1920 T | 1934 0.07 |
| 1893 - | 1907 0.04 | 1921 2.37 | 1935 0.36 |
| 1894 - | 1908 0.24 | 1922 2.03 | 1936 T |
| 1895 - | 1909 2.90 | 1923 T | 1937 0.56 |
| 1896 - | 1910 0.43 | 1924 0.05 | 1938 0.01 |
| 1897 - | 1911 2.75 | 1925 0.07 | 1939 T |
| 1898 - | 1912 0.08 | 1926 0.07 | 1940 0.11 |

Average of this month for 42 years 0.63

Total from January 1, 1940 to date 3.25

Average from January 1, to date 1.70

Excess (+) ~~or deficiency (—)~~ from January 1, 1940 to date as compared with average of corresponding period +1.55

### WIND

Prevailing direction North Total movement 6962 miles

Average hourly velocity 10.0 miles per hour

Maximum velocity (for five minutes) 29 miles per hour

from N on 21

### (WEATHER No. of days)

Clear 10 Pt. Cloudy 19 Cloudy 0

Days on which .01 inch, or more, of rain occurred 4

### MISCELLANEOUS PHENOMENA (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms None

Earthquakes (Total Number of) 9

# THE PANAMA CANAL

MR 55420—Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month MARCH 1940, ~~193-~~

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 72 | 80 | .214 | T | 73.8 | PtCldy |
| 2 | 90 | 72 | 80 | .239 | 0 | 74.1 | PtCldy |
| 3 | 90 | 72 | 79 | .165 | .01 | 74.2 | PtCldy |
| 4 | 90 | 73 | 79 | .134 | .02 | 74.2 | PtCldy |
| 5 | 91 | 71 | 79 | .178 | 0 | 74.8 | PtCldy |
| 6 | 92 | 71 | 80 | .181 | 0 | 75.3 | Clear |
| 7 | 91 | 71 | 80 | .185 | 0 | 75.4 | Clear |
| 8 | 90 | 68 | 78 | .232 | 0 | 75.7 | Clear |
| 9 | 89 | 68 | 78 | .193 | 0 | 74.8 | PtCldy |
| 10 | 90 | 71 | 80 | .169 | 0 | 72.9 | PtCldy |
| 11 | 89 | 74 | 81 | .284 | 0 | 73.8 | PtCldy |
| 12 | 93 | 76 | 83 | .244 | 0 | 74.9 | PtCldy |
| 13 | 90 | 75 | 82 | .250 | 0 | 75.6 | PtCldy |
| 14 | 92 | 75 | 82 | .258 | 0 | 75.1 | PtCldy |
| 15 | 92 | 76 | 82 | .260 | 0 | 75.3 | PtCldy |
| 16 | 91 | 77 | 82 | .299 | 0 | 75.6 | PtCldy |
| 17 | 91 | 77 | 82 | .326 | 0 | 74.8 | PtCldy |
| 18 | 92 | 75 | 81 | .280 | 0 | 75.2 | PtCldy |
| 19 | 90 | 75 | 81 | .228 | .03 | 74.8 | Pt.Cldy |
| 20 | 90 | 75 | 80 | .158 | .69 | 75.4 | PtCldy |
| 21 | 89 | 74 | 81 | .145 | 0 | 77.0 | Pt.Cldy |
| 22 | 93 | 75 | 83 | .126 | 0 | 77.6 | PtCldy |
| 23 | 89 | 75 | 80 | .201 | 0 | 77.8 | PtCldy |
| 24 | 91 | 75 | 81 | .138 | 0 | 78.8 | PtCldy |
| 25 | 93 | 75 | 82 | .130 | 0 | 79.2 | Clear |
| 26 | 91 | 74 | 81 | .260 | T | 79.6 | PtCldy |
| 27 | 90 | 73 | 81 | .200 | 0 | 79.7 | PtCldy |
| 28 | 93 | 75 | 82 | .248 | 0 | 80.5 | PtCldy |
| 29 | 94 | 75 | 82 | .256 | 0 | 79.8 | PtCldy |
| 30 | 92 | 74 | 81 | .267 | 0 | 79.7 | PtCldy |
| 31 | 93 | 74 | 81 | .221 | 0 | 78.9 | PtCldy |
| Sum | 2821 | 2285 | * ---- | 6.669 | 0.75 | * ---- | |
| Mean | 91.0 | 73.7 | 80.8 | 0.215 | ---- | 76.3 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.815; highest 29.970 date 1

Lowest 29.680 date 22

**TEMPERATURE**

Highest 94 date 29 lowest 68 date 8

Greatest daily range 22 date 8

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 80.2 | 1915 81.4 | 1924 79.9 | 1933 79.3 |
| 1907 79.3 | 1916 79.0 | 1925 78.1 | 1934 78.8 |
| 1908 80.5 | 1917 78.8 | 1926 80.6 | 1935 80.3 |
| 1909 79.8 | 1918 78.0 | 1927 80.3 | 1936 80.1 |
| 1910 77.5 | 1919 79.6 | 1928 80.4 | 1937 80.3 |
| 1911 78.3 | 1920 80.0 | 1929 79.4 | 1938 79.1 |
| 1912 81.1 | 1921 79.3 | 1930 80.5 | 1939 79.0 |
| 1913 80.1 | 1922 79.7 | 1931 81.3 | 1940 80.8 |
| 1914 80.8 | 1923 79.3 | 1932 79.7 | 1941 ---- |

Mean of this month for 35 years 79.7

Absolute maximum for this month for 35 years 96

Absolute minimum for this month for 35 years 65

Average daily excess, (+) ~~or deficiency (−)~~ of his month as compared with mean of 35 years +1.1

**EVAPORATION**

Total this month 6.669 Average daily 0.215 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 0.69 date 20

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 – | 1899 2.41 | 1913 0.43 | 1927 0.01 |
| 1886 – | 1900 0 | 1914 T | 1928 4.07 |
| 1887 – | 1901 0 | 1915 T | 1929 2.19 |
| 1888 – | 1902 – | 1916 0.89 | 1930 0.01 |
| 1889 5.71 | 1903 – | 1917 0.02 | 1931 0.70 |
| 1890 0.16 | 1904 – | 1918 1.25 | 1932 0.13 |
| 1891 0.35 | 1905 – | 1919 T | 1933 0.46 |
| 1892 0 | 1906 0.05 | 1920 0.09 | 1934 0.20 |
| 1893 – | 1907 T | 1921 2.98 | 1935 T |
| 1894 – | 1908 0.03 | 1922 1.02 | 1936 0.36 |
| 1895 – | 1909 0.18 | 1923 T | 1937 2.44 |
| 1896 – | 1910 1.83 | 1924 0.07 | 1938 0.25 |
| 1897 – | 1911 0.26 | 1925 0.07 | 1939 T |
| 1898 – | 1912 0.01 | 1926 0 | 1940 0.75 |

Average of this month for 42 years 0.70

Total from January 1, 1940 to date 4.00

Average from January 1, to date 2.40

Excess (+) ~~or deficiency (−)~~ from January 1, 1940 to date as compared with average of corresponding period +1.60

**WIND**

Prevailing direction N W Total movement 6170 miles

Average hourly velocity 8.3 miles per hour

Maximum velocity (for five minutes) 27 miles per hour from N on 17

**(WEATHER No. of days)**

Clear 4 Pt. Cloudy 27 Cloudy 0

Days on which .01 inch, or more, of rain occurred 4

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar 0

Fogs: Light 0

Fogs: Dense 0

Thunderstorms 0

Earthquakes 13

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 55420—Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month April, 19~~3~~40

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 76 | 82 | .248 | 0 | 78.8 | Pt.Cldy |
| 2 | 90 | 75 | 81 | .295 | 0 | 77.3 | Pt.Cldy |
| 3 | 92 | 76 | 82 | .216 | 0 | 76.5 | Pt.Cldy |
| 4 | 92 | 77 | 82 | .244 | 0 | 76.8 | Pt.Cldy |
| 5 | 94 | 76 | 83 | .284 | 0 | 76.1 | Pt.Cldy |
| 6 | 91 | 77 | 82 | .264 | 0 | 76.0 | Pt.Cldy |
| 7 | 89 | 77 | 82 | .153 | .15 | 76.9 | Pt.Cldy |
| 8 | 93 | 75 | 82 | .142 | 0 | 76.1 | Pt.Cldy |
| 9 | 92 | 75 | 81 | .165 | .26 | 76.2 | Pt.Cldy |
| 10 | 90 | 75 | 82 | .224 | T | 76.9 | Pt.Cldy |
| 11 | 93 | 73 | 81 | .205 | 0 | 76.9 | Pt.Cldy |
| 12 | 92 | 75 | 81 | .311 | 0 | 77.1 | Clear |
| 13 | 92 | 73 | 81 | .322 | 0 | 78.2 | Pt.Cldy |
| 14 | 92 | 73 | 80 | .245 | 0 | 79.0 | Pt.Cldy |
| 15 | 93 | 72 | 80 | .307 | 0 | 78.7 | Pt.Cldy |
| 16 | 91 | 73 | 81 | .259 | 0 | 77.8 | Pt.Cldy |
| 17 | 93 | 74 | 82 | .252 | 0 | 78.2 | Pt.Cldy |
| 18 | 92 | 73 | 81 | .237 | 0 | 78.3 | Pt.Cldy |
| 19 | 88 | 76 | 81 | .157 | .01 | 78.8 | Pt.Cldy |
| 20 | 89 | 74 | 81 | .150 | .23 | 79.5 | Pt.Cldy |
| 21 | 92 | 72 | 81 | .177 | 0 | 79.2 | Pt.Cldy |
| 22 | 93 | 70 | 81 | .295 | 0 | 78.5 | Pt.Cldy |
| 23 | 92 | 75 | 82 | .232 | 0 | 78.8 | Pt.Cldy |
| 24 | 91 | 77 | 82 | .197 | 0 | 80.3 | Cloudy |
| 25 | 94 | 77 | 83 | .165 | T | 80.2 | Pt.Cldy |
| 26 | 94 | 78 | 84 | .158 | .40 | 80.2 | Pt.Cldy |
| 27 | 89 | 76 | 81 | .204 | 0 | 79.2 | Cloudy |
| 28 | 93 | 75 | 82 | .071 | 0 | 79.6 | Pt.Cldy |
| 29 | 93 | 77 | 84 | .169 | 0 | 78.3 | Pt.Cldy |
| 30 | 94 | 76 | 84 | .292 | 0 | 78.6 | Pt.Cldy |
| 31 | - | - | - | - | - | - | - |
| | 2755 | 2248 | * | 6.640 | 1.05 | * | |
| Av. | 91.8 | 74.9 | 81.8 | 0.221 | - | 78.1 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.830; highest 29.960 date 14th

Lowest 29.710 date 17th

**TEMPERATURE**

Highest 94 date 26th lowest 70 date 22nd

Greatest daily range 23 date 22nd

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 80.8 | 1915 | 79.4 | 1924 | 80.5 | 1933 | 80.5 |
| 1907 | 79.6 | 1916 | 79.7 | 1925 | 79.9 | 1934 | 80.5 |
| 1908 | 80.8 | 1917 | 78.9 | 1926 | 81.8 | 1935 | 80.4 |
| 1909 | 79.6 | 1918 | 79.0 | 1927 | 79.8 | 1936 | 81.0 |
| 1910 | 78.5 | 1919 | 80.1 | 1928 | 80.7 | 1937 | 80.9 |
| 1911 | 79.5 | 1920 | 81.1 | 1929 | 80.1 | 1938 | 79.7 |
| 1912 | 80.6 | 1921 | 79.8 | 1930 | 79.9 | 1939 | 81.1 |
| 1913 | 80.3 | 1922 | 81.6 | 1931 | 82.1 | 1940 | 81.8 |
| 1914 | 81.1 | 1923 | 79.8 | 1932 | 81.0 | 1941 | |

Mean of this month for 35 years 80.3

Absolute maximum for this month for 35 years 97

Absolute minimum for this month for 35 years 64

Average daily excess. (+) ~~XXXXXXXXX~~ of his month as compared with mean of 35 years +1.5

**EVAPORATION**

Total this month 6.640 Average daily 0.221 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 0.40 date 26th

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1885 | - | 1899 | 0 | 1913 | 0.03 | 1927 | 4.67 |
| 1886 | - | 1900 | 2.25 | 1914 | 4.80 | 1928 | 3.38 |
| 1887 | - | 1901 | 0.25 | 1915 | 5.37 | 1929 | 0.43 |
| 1888 | - | 1902 | - | 1916 | 2.84 | 1930 | 6.78 |
| 1889 | 5.51 | 1903 | - | 1917 | 2.24 | 1931 | 1.45 |
| 1890 | 1.61 | 1904 | - | 1918 | 4.52 | 1932 | 7.56 |
| 1891 | 3.23 | 1905 | - | 1919 | 6.43 | 1933 | 3.46 |
| 1892 | 0.98 | 1906 | 7.76 | 1920 | 3.02 | 1934 | 5.09 |
| 1893 | - | 1907 | T | 1921 | 1.19 | 1935 | 2.40 |
| 1894 | - | 1908 | 1.37 | 1922 | 0.16 | 1936 | 1.64 |
| 1895 | - | 1909 | 2.92 | 1923 | 0.83 | 1937 | 1.32 |
| 1896 | - | 1910 | 3.71 | 1924 | 3.72 | 1938 | 1.93 |
| 1897 | - | 1911 | 6.34 | 1925 | 2.63 | 1939 | 0.94 |
| 1898 | - | 1912 | 2.68 | 1926 | 0.08 | 1940 | 1.05 |

Average of this month for 42 years 2.82

Total from January 1, 1940 to date 5.05

Average from January 1, to date 5.22

~~XXXXXXX~~ deficiency (−) from January 1, 1940 to date as compared with average of corresponding period −0.17

**WIND**

Prevailing direction NW Total movement 6023 miles

Average hourly velocity 8.4 miles per hour

Maximum velocity (for five minutes) 22 miles per hour from NW on 1st

**(WEATHER No. of days)**

Clear 1 Pt. Cloudy 27 Cloudy 2

Days on which .01 inch, or more, of rain occurred 5

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar 0

Fogs: Light 28th

Fogs: Dense 0

Thunderstorms 25th

Earthquakes (Number of) 16

066-6

# THE PANAMA CANAL

MR 55420—Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

tation, BALBOA HEIGHTS; Month MAY, 19~~3~~ 40

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 95 | 77 | 83 | .241 | .06 | 79.1 | PtCldy |
| 2 | 92 | 78 | 83 | .204 | 0 | 79.8 | PtCldy |
| 3 | 91 | 75 | 80 | .183 | .50 | 80.1 | Cloudy |
| 4 | 87 | 74 | 77 | .126 | .78 | 80.0 | Cloudy |
| 5 | 88 | 74 | 78 | .079 | T | 80.3 | PtCldy |
| 6 | 92 | 74 | 82 | .091 | 0 | 80.2 | PtCldy |
| 7 | 92 | 75 | 83 | .208 | T | 81.2 | PtCldy |
| 8 | 92 | 76 | 83 | .213 | .07 | 81.2 | PtCldy |
| 9 | 90 | 76 | 83 | .126 | .73 | 81.9 | PtCldy |
| 10 | 90 | 75 | 82 | .208 | .55 | 82.8 | PtCldy |
| 11 | 92 | 75 | 80 | .154 | 1.23 | 83.2 | PtCldy |
| 12 | 86 | 77 | 81 | .134 | .01 | 82.7 | PtCldy |
| 13 | 93 | 76 | 84 | .138 | 0 | 82.6 | PtCldy |
| 14 | 94 | 78 | 85 | .263 | T | 82.8 | PtCldy |
| 15 | 92 | 78 | 84 | .260 | 0 | 82.5 | PtCldy |
| 16 | 92 | 78 | 83 | .244 | 0 | 82.8 | PtCldy |
| 17 | 88 | 76 | 80 | .236 | .07 | 82.4 | PtCldy |
| 18 | 90 | 75 | 81 | .169 | 0 | 81.7 | PtCldy |
| 19 | 86 | 73 | 79 | .158 | .58 | 81.8 | PtCldy |
| 20 | 86 | 75 | 80 | .153 | 0 | 82.1 | PtCldy |
| 21 | 89 | 75 | 81 | .118 | .49 | 83.0 | PtCldy |
| 22 | 91 | 74 | 82 | .146 | 0 | 83.5 | PtCldy |
| 23 | 88 | 74 | 78 | .150 | .41 | 83.8 | Cloudy |
| 24 | 88 | 74 | 80 | .106 | .11 | 84.4 | PtCldy |
| 25 | 90 | 76 | 82 | .071 | 0 | 85.0 | Cloudy |
| 26 | 90 | 76 | 80 | .059 | .20 | 84.7 | Cloudy |
| 27 | 89 | 76 | 82 | .146 | 0 | 84.1 | PtCldy |
| 28 | 89 | 77 | 80 | .106 | 1.08 | 83.8 | Cloudy |
| 29 | 87 | 75 | 79 | .043 | .12 | 83.5 | PtCldy |
| 30 | 87 | 75 | 81 | .063 | .04 | 84.7 | PtCldy |
| 31 | 89 | 76 | 79 | .097 | .23 | 83.9 | Cloudy |
| Sum | 2785 | 2343 | * - | 4.693 | 7.26 | * — | |
| Mean | 89.8 | 75.6 | 81.1 | 0.151 | — | 82.4 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.807; highest 29.960 date 5th

Lowest 29.660 date 14th

**TEMPERATURE**

Highest 95 date 1st; lowest 73 date 19th

Greatest daily range 18 date 1st

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 79.9 | 1915 79.9 | 1924 79.0 | 1933 79.3 |
| 1907 80.1 | 1916 79.2 | 1925 80.4 | 1934 78.9 |
| 1908 78.5 | 1917 78.2 | 1926 80.9 | 1935 79.0 |
| 1909 78.3 | 1918 78.8 | 1927 78.6 | 1936 79.6 |
| 1910 77.7 | 1919 80.2 | 1928 79.6 | 1937 79.2 |
| 1911 78.0 | 1920 80.3 | 1929 79.7 | 1938 78.4 |
| 1912 80.3 | 1921 79.8 | 1930 79.5 | 1939 81.0 |
| 1913 78.4 | 1922 79.3 | 1931 79.7 | 1940 81.1 |
| 1914 80.1 | 1923 79.3 | 1932 78.9 | 1941 - |

Mean of this month for 35 years 79.4

Absolute maximum for this month for 35 years 96

Absolute minimum for this month for 35 years 69

Average daily excess, (+) XXXXXXXX of his month as compared with mean of 35 years +1.7

**EVAPORATION**

Total this month 4.693 Average daily 0.151 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.24 date 11-12th

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 — | 1899 9.58 | 1913 8.27 | 1927 9.06 |
| 1886 — | 1900 11.22 | 1914 6.98 | 1928 4.20 |
| 1887 — | 1901 11.08 | 1915 6.42 | 1929 4.04 |
| 1888 — | 1902 — | 1916 12.59 | 1930 9.70 |
| 1889 10.28 | 1903 — | 1917 5.75 | 1931 13.15 |
| 1890 4.45 | 1904 — | 1918 6.75 | 1932 9.39 |
| 1891 10.35 | 1905 — | 1919 5.21 | 1933 7.86 |
| 1892 5.24 | 1906 10.68 | 1920 3.31 | 1934 4.96 |
| 1893 — | 1907 4.44 | 1921 8.60 | 1935 8.10 |
| 1894 — | 1908 7.64 | 1922 9.88 | 1936 6.36 |
| 1895 — | 1909 9.10 | 1923 5.84 | 1937 10.98 |
| 1896 — | 1910 9.89 | 1924 5.51 | 1938 12.03 |
| 1897 — | 1911 11.04 | 1925 6.73 | 1939 4.61 |
| 1898 — | 1912 10.71 | 1926 4.16 | 1940 7.26 |

Average of this month for 42 years 7.94

Total from January 1, 1940 to date 12.31

Average from January 1, to date 13.16

XXXXXXXX deficiency (−) from January 1, 1940 to date as compared with average of corresponding period -.85

**WIND**

Prevailing direction NW Total movement 4574 miles

Average hourly velocity 6.1 miles per hour

Maximum velocity (for five minutes) 20 miles per hour from NW on 31st

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 24 Cloudy 7

Days on which .01 inch, or more, of rain occurred 18

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar 0

Fogs: Light 0

Fogs: Dense 0

Thunderstorms 2-3-4-11-23-25-26-28-31

Earthquakes (No. of) 23

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

066-6

# THE PANAMA CANAL

MR 55420—Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month June 1940, 193

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 75 | 79 | .082 | T | 82.1 | Cloudy |
| 2 | 87 | 76 | 81 | .079 | 0 | 83.8 | Pt.Cldy |
| 3 | 88 | 77 | 81 | .122 | .25 | 84.8 | Pt.Cldy |
| 4 | 90 | 76 | 80 | .083 | .32 | 84.4 | Cloudy |
| 5 | 85 | 75 | 79 | .090 | .61 | 83.9 | Cloudy |
| 6 | 86 | 75 | 79 | .060 | 0 | 85.0 | Pt.Cldy |
| 7 | 88 | 74 | 80 | .082 | 0 | 84.8 | Pt.Cldy |
| 8 | 90 | 75 | 81 | .106 | .17 | 84.8 | Pt.Cldy |
| 9 | 92 | 75 | 81 | .099 | .25 | 84.8 | Cloudy |
| 10 | 89 | 77 | 81 | .102 | T | 84.1 | Cloudy |
| 11 | 89 | 74 | 80 | .075 | .75 | 84.0 | Cloudy |
| 12 | 83 | 77 | 80 | .106 | T | 82.8 | Cloudy |
| 13 | 85 | 76 | 80 | .059 | .18 | 82.5 | Cloudy |
| 14 | 90 | 74 | 81 | .059 | 0 | 83.4 | Pt.Cldy |
| 15 | 90 | 77 | 81 | .126 | .81 | 83.3 | Cloudy |
| 16 | 87 | 73 | 77 | .083 | .98 | 82.0 | Cloudy |
| 17 | 87 | 72 | 78 | .102 | 0 | 81.9 | Pt.Cldy |
| 18 | 89 | 73 | 80 | .087 | 0 | 83.5 | Pt.Cldy |
| 19 | 84 | 75 | 79 | .087 | T | 83.0 | Pt.Cldy |
| 20 | 89 | 76 | 80 | .098 | .09 | 82.9 | Pt.Cldy |
| 21 | 88 | 74 | 80 | .134 | .71 | 82.8 | Cloudy |
| 22 | 87 | 74 | 80 | .079 | 0 | 82.9 | Cloudy |
| 23 | 90 | 75 | 81 | .094 | .30 | 84.3 | Cloudy |
| 24 | 91 | 77 | 82 | .102 | 0 | 84.6 | Pt.Cldy |
| 25 | 92 | 77 | 83 | .123 | T | 83.7 | Cloudy |
| 26 | 89 | 75 | 80 | .090 | .32 | 83.1 | Cloudy |
| 27 | 88 | 75 | 81 | .106 | .28 | 83.3 | Cloudy |
| 28 | 91 | 78 | 84 | .067 | 0 | 83.7 | Pt.Cldy |
| 29 | 89 | 78 | 82 | .134 | .01 | 83.6 | Cloudy |
| 30 | 92 | 77 | 84 | .098 | 0 | 83.9 | Pt.Cldy |
| 31 | | | | | | | |
| | 2649 | 2262 | * - | 2.814 | 6.03 | * - | |
| Mean | 88.3 | 75.4 | 80.5 | 0.094 | - | 83.6 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

### ATMOSPHERIC PRESSURE (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)
Mean 29.822; highest 29.940 date 17th
Lowest 29.690 date 9th

### TEMPERATURE

Highest 92 date 9; lowest 72 date 17
Greatest daily range 17 date 9
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.7 | 1915 | 79.6 | 1924 | 77.8 | 1933 | 78.4 |
| 1907 | 78.2 | 1916 | 77.9 | 1925 | 78.8 | 1934 | 78.9 |
| 1908 | 78.5 | 1917 | 77.6 | 1926 | 79.5 | 1935 | 78.5 |
| 1909 | 77.4 | 1918 | 78.5 | 1927 | 78.3 | 1936 | 79.3 |
| 1910 | 77.8 | 1919 | 79.3 | 1928 | 78.4 | 1937 | 79.2 |
| 1911 | 78.8 | 1920 | 79.2 | 1929 | 78.5 | 1938 | 77.5 |
| 1912 | 79.1 | 1921 | 78.5 | 1930 | 79.4 | 1939 | 79.3 |
| 1913 | 79.0 | 1922 | 78.4 | 1931 | 79.5 | 1940 | 80.5 |
| 1914 | 79.2 | 1923 | 78.7 | 1932 | 78.7 | 1941 | - |

Mean of this month for 35 years 78.7
Absolute maximum for this month for 35 years 95
Absolute minimum for this month for 35 years 70
Average daily excess, (+) ~~XXXXXXXXX~~ of his month as compared with mean of 35 years +1.8

### EVAPORATION

Total this month 2.814 Average daily 0.094 inches

### PRECIPITATION

Greatest precipitation in 24 hours 1.68 date 15 & 16
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1885 | - | 1899 | 8.48 | 1913 | 8.15 | 1927 | 10.83 |
| 1886 | - | 1900 | 8.93 | 1914 | 7.28 | 1928 | 8.78 |
| 1887 | - | 1901 | 12.65 | 1915 | 2.85 | 1929 | 9.34 |
| 1888 | - | 1902 | - | 1916 | 4.39 | 1930 | 2.50 |
| 1889 | 6.46 | 1903 | - | 1917 | 7.35 | 1931 | 7.81 |
| 1890 | 5.00 | 1904 | - | 1918 | 5.20 | 1932 | 9.23 |
| 1891 | 13.78 | 1905 | 7.33 | 1919 | 8.93 | 1933 | 14.36 |
| 1892 | 6.18 | 1906 | 6.77 | 1920 | 4.83 | 1934 | 10.85 |
| 1893 | - | 1907 | 12.64 | 1921 | 7.86 | 1935 | 7.34 |
| 1894 | - | 1908 | 4.28 | 1922 | 7.92 | 1936 | 9.12 |
| 1895 | - | 1909 | 9.90 | 1923 | 5.59 | 1937 | 7.44 |
| 1896 | - | 1910 | 8.82 | 1924 | 8.41 | 1938 | 9.79 |
| 1897 | - | 1911 | 3.40 | 1925 | 18.34 | 1939 | 12.65 |
| 1898 | - | 1912 | 5.80 | 1926 | 12.33 | 1940 | 6.03 |

Average of this month for ~~34~~ 43 years 8.27
Total from January 1, 19 40 to date 18.34
Average from January 1, to date 21.43
~~XXXXXXXX~~ deficiency (−) from January 1, 19 40 to date as compared with average of corresponding period -3.09

### WIND

Prevailing direction Northwest Total movement 3536 miles
Average hourly velocity 4.9 miles per hour
Maximum velocity (for five minutes) 27 miles per hour
from N.W. on 16th

### (WEATHER No. of days)

Clear 0 Pt. Cloudy 13 Cloudy 17
Days on which .01 inch, or more, of rain occurred 15

### MISCELLANEOUS PHENOMENA (DATES OF)

Halos: Lunar 0
Fogs: Light 0
Fogs: Dense 0
Thunderstorms 5-8-9-11-12-15-16-20-21-23-25-2
Earthquakes (No. of) 11

066-6

# THE PANAMA CANAL

MR 55420—Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month JULY, 1940

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 77 | 84 | .197 | .01 | 83.8 | Pt.Cldy |
| 2 | 91 | 78 | 82 | .201 | T | 84.8 | Cldy |
| 3 | 92 | 77 | 83 | .182 | 0 | 84.9 | Pt.Cldy |
| 4 | 92 | 78 | 84 | .181 | 0 | 85.0 | Pt.Cldy |
| 5 | 90 | 78 | 82 | .193 | .86 | 84.7 | Cldy |
| 6 | 91 | 78 | 83 | .190 | T | 84.7 | Pt.Cldy |
| 7 | 89 | 76 | 81 | .098 | 0 | 84.3 | Pt.Cldy |
| 8 | 88 | 78 | 82 | .079 | .16 | 84.2 | Cldy |
| 9 | 91 | 78 | 84 | .118 | 0 | 84.5 | Pt.Cldy |
| 10 | 92 | 78 | 84 | .197 | 0 | 84.8 | Pt.Cldy |
| 11 | 92 | 78 | 84 | .197 | 0 | 84.3 | Pt.Cldy |
| 12 | 93 | 76 | 83 | .236 | 0 | 83.8 | Pt.Cldy |
| 13 | 92 | 75 | 82 | .236 | 0 | 84.2 | Pt.Cldy |
| 14 | 89 | 78 | 82 | .138 | .25 | 84.3 | Pt.Cldy |
| 15 | 78 | 73 | 76 | .178 | .73 | 82.0 | Cldy |
| 16 | 84 | 73 | 78 | .077 | 0 | 81.6 | Cldy |
| 17 | 89 | 75 | 79 | .100 | 2.22 | 82.9 | Cldy |
| 18 | 84 | 76 | 79 | .099 | .01 | 83.0 | Cldy |
| 19 | 88 | 72 | 76 | .078 | .15 | 81.6 | Cldy |
| 20 | 86 | 72 | 78 | .079 | 0 | 81.4 | Cldy |
| 21 | 89 | 74 | 81 | .059 | 0 | 81.6 | Pt.Cldy |
| 22 | 87 | 75 | 80 | .099 | T | 82.2 | Pt.Cldy |
| 23 | 86 | 76 | 81 | .157 | 0 | 82.6 | Cldy |
| 24 | 83 | 75 | 79 | .118 | .19 | 82.7 | Cldy |
| 25 | 80 | 75 | 77 | .079 | .05 | 82.2 | Cldy |
| 26 | 89 | 73 | 81 | .079 | 0 | 83.6 | Pt.Cldy |
| 27 | 90 | 72 | 78 | .078 | 1.43 | 83.1 | Pt.Cldy |
| 28 | 87 | 74 | 80 | .138 | .06 | 82.9 | Pt.Cldy |
| 29 | 87 | 76 | 79 | .079 | .09 | 83.0 | Cldy |
| 30 | 87 | 75 | 78 | .098 | 0 | 82.4 | Cldy |
| 31 | 89 | 75 | 80 | .060 | .02 | 83.2 | Cldy |
| Sum | 2738 | 2344 | * | 3.978 | 6.23 | * | — |
| Mean | 88.3 | 75.6 | 80.7 | .128 | — | 83.4 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.825 ; highest 29.960 date 25

Lowest 29.660 date 3

**TEMPERATURE**

Highest 93 date 1 ; lowest 72 date 20

Greatest daily range 18 date 27

Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 78.0 | 1915 | 78.4 | 1924 | 78.2 | 1933 | 78.5 |
| 1907 | 78.6 | 1916 | 77.4 | 1925 | 78.3 | 1934 | 79.5 |
| 1908 | 78.3 | 1917 | 77.8 | 1926 | 78.9 | 1935 | 78.4 |
| 1909 | 77.2 | 1918 | 79.4 | 1927 | 78.7 | 1936 | 78.9 |
| 1910 | 79.0 | 1919 | 79.1 | 1928 | 79.9 | 1937 | 79.3 |
| 1911 | 79.9 | 1920 | 78.9 | 1929 | 79.0 | 1938 | 78.2 |
| 1912 | 78.9 | 1921 | 78.9 | 1930 | 80.0 | 1939 | 80.0 |
| 1913 | 79.1 | 1922 | 79.8 | 1931 | 78.4 | 1940 | 80.7 |
| 1914 | 80.7 | 1923 | 79.3 | 1932 | 78.8 | 1941 | |

Mean of this month for 35 years 78.9

Absolute maximum for this month for 35 years 85

Absolute minimum for this month for 35 years 67

Average daily excess. (+) ~~or deficiency (−)~~ of his month as compared with mean of 35 years +1.8

**EVAPORATION**

Total this month 3.978 Average daily .128 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.23 date 17 & 18

Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1887 | 7.91 | 1899 | 8.21 | 1913 | 4.85 | 1927 | 8.22 |
| 1888 | 9.88 | 1900 | 15.82 | 1914 | 4.32 | 1928 | 7.91 |
| 1889 | 7.20 | 1901 | 14.11 | 1915 | 6.93 | 1929 | 5.22 |
| 1890 | 5.35 | 1902 | | 1916 | 10.13 | 1930 | 4.04 |
| 1889 | | 1903 | | 1917 | 10.17 | 1931 | 10.48 |
| 1890 | | 1904 | | 1918 | 5.13 | 1932 | 6.29 |
| 1891 | | 1905 | 4.31 | 1919 | 4.73 | 1933 | 6.01 |
| 1892 | | 1906 | 8.77 | 1920 | 6.18 | 1934 | 5.39 |
| 1893 | | 1907 | 4.28 | 1921 | 8.07 | 1935 | 13.16 |
| 1894 | | 1908 | 9.83 | 1922 | 5.08 | 1936 | 5.96 |
| 1895 | | 1909 | 9.01 | 1923 | 5.15 | 1937 | 6.37 |
| 1896 | | 1910 | 9.26 | 1924 | 5.27 | 1938 | 7.52 |
| 1897 | | 1911 | 5.78 | 1925 | 5.85 | 1939 | 5.66 |
| 1898 | 5.35 | 1912 | 10.25 | 1926 | 9.93 | 1940 | 6.23 |

Average of this month for 44 years 7.21

Total from January 1, 1940 to date 24.57

Average from January 1, to date 28.64

Excess (+) or deficiency (−) from January 1, 1940 to date as compared with average of corresponding period −4.07

**WIND**

Prevailing direction NW Total movement 4905 miles

Average hourly velocity 6.6 miles per hour

Maximum velocity (for five minutes) 21 miles per hour

from NW on 4

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 16 Cloudy 15

Days on which .01 inch, or more, of rain occurred 14

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar 0

Fogs: Light 0

Fogs: Dense 0

Thunderstorms 5, 14, 15, 17, 27

Earthquakes (No. of) 65

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

066-6

# THE PANAMA CANAL

MR 55420—Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month AUGUST, 19~~3~~40

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 76 | 82 | .099 | T | 84.0 | Pt.Cldy |
| 2 | 91 | 76 | 82 | .157 | 0 | 84.1 | Pt.Cldy |
| 3 | 89 | 75 | 80 | .138 | 1.16 | 84.0 | Pt.Cldy |
| 4 | 89 | 76 | 79 | .118 | .15 | 83.9 | Pt.Cldy |
| 5 | 85 | 75 | 79 | .098 | .10 | 83.3 | Cldy |
| 6 | 85 | 75 | 78 | .119 | .70 | 83.4 | Cloudy |
| 7 | 89 | 75 | 80 | .059 | 0 | 83.3 | Cloudy |
| 8 | 91 | 74 | 80 | .059 | 0 | 83.2 | Pt.Cldy |
| 9 | 88 | 72 | 77 | .173 | .33 | 82.9 | Cloudy |
| 10 | 90 | 71 | 78 | .083 | .60 | 82.6 | Cloudy |
| 11 | 88 | 74 | 79 | .059 | .01 | 83.8 | Pt.Cldy |
| 12 | 83 | 75 | 77 | .078 | .09 | 82.2 | Cloudy |
| 13 | 90 | 74 | 80 | .079 | 0 | 83.0 | Pt.Cldy |
| 14 | 88 | 76 | 79 | .078 | .03 | 83.2 | Cloudy |
| 15 | 91 | 76 | 81 | .079 | .62 | 83.2 | Pt.Cldy |
| 16 | 89 | 76 | 79 | .079 | 0 | 83.8 | Cloudy |
| 17 | 85 | 75 | 79 | .078 | .22 | 83.3 | Pt.Cldy |
| 18 | 89 | 76 | 82 | .118 | 0 | 83.3 | Pt.Cldy |
| 19 | 90 | 77 | 82 | .118 | 0 | 83.6 | Cloudy |
| 20 | 87 | 76 | 80 | .118 | T | 83.8 | Cloudy |
| 21 | 79 | 73 | 76 | .098 | .15 | 82.3 | Cloudy |
| 22 | 90 | 75 | 79 | .059 | .27 | 82.2 | Cloudy |
| 23 | 83 | 75 | 77 | .079 | .09 | 82.0 | Cloudy |
| 24 | 86 | 75 | 79 | .079 | .05 | 82.9 | Cloudy |
| 25 | 90 | 74 | 81 | .118 | 0 | 83.6 | Pt.Cldy |
| 26 | 88 | 77 | 80 | .079 | T | 83.4 | Cloudy |
| 27 | 86 | 76 | 79 | .078 | .02 | 83.1 | Cloudy |
| 28 | 82 | 76 | 78 | .060 | T | 82.6 | Cloudy |
| 29 | 87 | 75 | 80 | .078 | 0 | 82.9 | Cloudy |
| 30 | 89 | 74 | 80 | .114 | 0 | 83.2 | Pt.Cldy |
| 31 | 91 | 76 | 81 | .115 | 0 | 83.3 | Cloudy |
| Sum | 2720 | 2326 | * - | 2.944 | 4.59 | * - | |
| Mean | 87.7 | 75.0 | 79.5 | 0.095 | - | 83.2 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.821 ; highest 29.940 date 13

Lowest 29.720 date 28

**TEMPERATURE**

Highest 92 date 1 ; lowest 71 date 10

Greatest daily range 19 date 10

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 78.1 | 1915 79.0 | 1924 77.7 | 1933 78.8 |
| 1907 78.6 | 1916 77.1 | 1925 79.1 | 1934 79.4 |
| 1908 78.6 | 1917 77.6 | 1926 79.2 | 1935 77.7 |
| 1909 77.8 | 1918 79.1 | 1927 78.8 | 1936 78.8 |
| 1910 77.4 | 1919 79.5 | 1928 78.2 | 1937 79.6 |
| 1911 78.5 | 1920 78.7 | 1929 77.7 | 1938 78.0 |
| 1912 78.8 | 1921 78.8 | 1930 79.3 | 1939 80.1 |
| 1913 78.8 | 1922 79.1 | 1931 79.8 | 1940 79.5 |
| 1914 79.4 | 1923 78.7 | 1932 78.4 | 1941 |

Mean of this month for 35 years 78.7

Absolute maximum for this month for 35 years 94

Absolute minimum for this month for 35 years 68

Average daily excess, (+) or deficiency (−) of his month as compared with mean of 35 years +0.8

**EVAPORATION**

Total this month 2.944 Average daily .095 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.27 date 3 & 4

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1879 7.24 | 1899 8.60 | 1913 8.20 | 1927 7.76 |
| 1880 11.46 | 1900 6.00 | 1914 6.09 | 1928 6.87 |
| 1881 4.49 | 1901 8.67 | 1915 15.24 | 1929 11.96 |
| 1882 4.05 | 1902 - | 1916 10.53 | 1930 4.34 |
| 1889 - | 1903 - | 1917 7.12 | 1931 1.28 |
| 1890 - | 1904 - | 1918 3.86 | 1932 7.61 |
| 1891 - | 1905 5.31 | 1919 5.82 | 1933 6.55 |
| 1892 - | 1906 6.43 | 1920 12.22 | 1934 4.52 |
| 1893 - | 1907 7.46 | 1921 9.51 | 1935 11.41 |
| 1894 - | 1908 11.48 | 1922 1.46 | 1936 6.14 |
| 1895 - | 1909 6.84 | 1923 5.37 | 1937 3.80 |
| 1896 - | 1910 12.00 | 1924 14.46 | 1938 11.82 |
| 1897 - | 1911 7.21 | 1925 10.83 | 1939 5.12 |
| 1898 6.89 | 1912 6.33 | 1926 10.45 | 1940 4.59 |

Average of this month for 44 years 7.70

Total from January 1, 19 40 to date 29.16

Average from January 1, to date 36.34

~~Excess (+) or~~ deficiency (−) from January 1, 19 40 to date as compared with average of corresponding period -7.18

**WIND**

Prevailing direction NW Total movement 4517 miles

Average hourly velocity 6.1 miles per hour

Maximum velocity (for five minutes) 26 miles per hour

from SE on 9

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 12 Cloudy 19

Days on which .01 inch, or more, of rain occurred 16

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 3,6,9,10,15,21,22,27,31

Earthquakes (no. of) 22

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

066-6

# THE PANAMA CANAL

MR 55420—Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month September, 1940

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 76 | 80 | .086 | .23 | 82.4 | Cldy. |
| 2 | 87 | 75 | 79 | .089 | .24 | 83.1 | Pt.Cldy. |
| 3 | 88 | 74 | 80 | .098 | .51 | 82.9 | Pt.Cldy. |
| 4 | 85 | 74 | 77 | .079 | 2.25 | 82.8 | Cldy. |
| 5 | 87 | 73 | 79 | .059 | 0 | 83.4 | Pt.Cldy. |
| 6 | 89 | 74 | 81 | .059 | .10 | 84.2 | Pt.Cldy. |
| 7 | 86 | 75 | 80 | .118 | .45 | 87.9 | Pt.Cldy. |
| 8 | 88 | 75 | 79 | .099 | .56 | 83.8 | Pt.Cldy. |
| 9 | 87 | 76 | 81 | .098 | 0 | 83.7 | Pt.Cldy. |
| 10 | 87 | 75 | 81 | .098 | 0 | 84.8 | Pt.Cldy. |
| 11 | 89 | 77 | 82 | .138 | .12 | 85.3 | Pt.Cldy. |
| 12 | 90 | 75 | 82 | .099 | .57 | 85.1 | Pt.Cldy. |
| 13 | 86 | 76 | 79 | .098 | .31 | 84.3 | Cldy. |
| 14 | 80 | 75 | 77 | .098 | .55 | 83.2 | Cldy. |
| 15 | 87 | 74 | 80 | .036 | .03 | 83.3 | Pt.Cldy. |
| 16 | 87 | 76 | 80 | .043 | 0 | 83.8 | Pt.Cldy. |
| 17 | 82 | 75 | 79 | .099 | .01 | 83.6 | Cldy. |
| 18 | 81 | 76 | 79 | .090 | 1.36 | 83.3 | Cldy. |
| 19 | 84 | 76 | 80 | .067 | .04 | 82.6 | Cldy. |
| 20 | 84 | 75 | 80 | .087 | 1.65 | 82.5 | Pt.Cldy. |
| 21 | 83 | 75 | 78 | .118 | 2.18 | 81.5 | Cldy. |
| 22 | 86 | 75 | 80 | .051 | .13 | 81.9 | Pt.Cldy. |
| 23 | 87 | 76 | 79 | .035 | .02 | 83.2 | Cldy. |
| 24 | 86 | 74 | 80 | .091 | T | 83.4 | Pt.Cldy. |
| 25 | 89 | 76 | 80 | .051 | 0 | 83.2 | Pt.Cldy. |
| 26 | 80 | 74 | 77 | .079 | 1.11 | 82.2 | Cloudy |
| 27 | 85 | 76 | 80 | .059 | T | 81.4 | Cloudy |
| 28 | 85 | 76 | 80 | .074 | .02 | 82.8 | Pt.Cloudy |
| 29 | 88 | 74 | 79 | .063 | 1.54 | 82.2 | Cloudy |
| 30 | 84 | 73 | 79 | .099 | .01 | 82.4 | Pt.Cloudy |
| 31 | | | | | | | |
| Sum | 2575 | 2251 | * - | 2.458 | 13.99 | * - | |
| Mean | 85.8 | 75.0 | 79.5 | .082 | - | 83.2 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)
Mean 29.813; highest 29.910 date 21st
Lowest 29.700 date 29th

**TEMPERATURE**

Highest 90 date 12; lowest 73 date 5
Greatest daily range 15 date 6
Bihourly Mean for this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 79.3 | 1915 | 79.1 | 1924 | 78.0 | 1933 | 78.6 |
| 1907 | 78.5 | 1916 | 77.6 | 1925 | 78.0 | 1934 | 79.0 |
| 1908 | 78.7 | 1917 | 77.6 | 1926 | 79.0 | 1935 | 78.9 |
| 1909 | 78.2 | 1918 | 78.9 | 1927 | 77.7 | 1936 | 78.1 |
| 1910 | 77.8 | 1919 | 78.2 | 1928 | 78.9 | 1937 | 79.0 |
| 1911 | 79.0 | 1920 | 78.5 | 1929 | 77.9 | 1938 | 78.2 |
| 1912 | 78.0 | 1921 | 78.3 | 1930 | 78.7 | 1939 | 78.4 |
| 1913 | 78.5 | 1922 | 78.1 | 1931 | 78.7 | 1940 | 79.5 |
| 1914 | 78.5 | 1923 | 78.8 | 1932 | 78.7 | 1941 | |

Mean of this month for 35 years 78.5
Absolute maximum for this month for 35 years 94
Absolute minimum for this month for 35 years 68
Average daily excess, (+) [redacted] of his month as compared with mean of 35 years +1.0

**EVAPORATION**

Total this month 2.458 Average daily .082 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 2.75 date 3-4
Total precipitation this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1889 | 9.02 | 1899 | 6.15 | 1913 | 11.43 | 1927 | 6.53 |
| 1890 | 7.91 | 1900 | 7.76 | 1914 | 9.60 | 1928 | 10.44 |
| 1891 | 8.94 | 1901 | 15.06 | 1915 | 3.69 | 1929 | 9.26 |
| 1892 | 4.05 | 1902 | | 1916 | 8.02 | 1930 | 7.61 |
| 1889 | | 1903 | | 1917 | 11.53 | 1931 | 11.09 |
| 1890 | | 1904 | | 1918 | 7.03 | 1932 | 7.23 |
| 1891 | | 1905 | 7.46 | 1919 | 10.84 | 1933 | 5.18 |
| 1892 | | 1906 | 4.83 | 1920 | 9.14 | 1934 | 16.38 |
| 1893 | | 1907 | 11.14 | 1921 | 3.27 | 1935 | 4.70 |
| 1894 | | 1908 | 5.93 | 1922 | 8.18 | 1936 | 8.62 |
| 1895 | | 1909 | 3.86 | 1923 | 4.60 | 1937 | 10.89 |
| 1896 | | 1910 | 4.84 | 1924 | 12.55 | 1938 | 8.23 |
| 1897 | | 1911 | 6.03 | 1925 | 9.01 | 1939 | 8.12 |
| 1898 | 7.94 | 1912 | 8.38 | 1926 | 8.41 | 1940 | 13.99 |

Average of this month for 44 years 8.29
Total from January 1, 1940 to date 37.49
Average from January 1, to date 44.26
[redacted] deficiency (−) from January 1, 1940 to date as compared with average of corresponding period -1.48

**WIND**

Prevailing direction NW Total movement 3180 miles
Average hourly velocity 4.4 miles per hour
Maximum velocity (for five minutes) 18 miles per hour
from SE on 9

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 18 Cloudy 12
Days on which .01 inch, or more, of rain occurred 23

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None
Fogs: Light None
Fogs: Dense None
Thunderstorms 1,3,4,11,13,14,18,23,24,26,27
Earthquakes 14 (Total)

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

066-6

# THE PANAMA CANAL

MR 55420--Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month OCTOBER, 1940

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 75 | 78 | .079 | .07 | 83.5 | Pt.Cldy. |
| 2 | 86 | 73 | 78 | .078 | T | 83.7 | Cldy. |
| 3 | 88 | 75 | 77 | .059 | .56 | 81.9 | Cldy. |
| 4 | 84 | 74 | 78 | .067 | .22 | 81.3 | Cldy. |
| 5 | 84 | 76 | 80 | .067 | .12 | 82.7 | Pt. Cldy |
| 6 | 81 | 75 | 78 | .083 | .85 | 81.8 | Cldy. |
| 7 | 84 | 75 | 80 | .098 | T | 80.8 | Cldy. |
| 8 | 86 | 77 | 81 | .071 | .01 | 81.6 | Pt.Cldy. |
| 9 | 85 | 76 | 79 | .095 | .05 | 82.2 | Cldy. |
| 10 | 87 | 74 | 79 | .078 | .36 | 82.7 | Pt.Cldy. |
| 11 | 88 | 75 | 77 | .091 | .29 | 82.2 | Pt.Cldy. |
| 12 | 85 | 71 | 75 | .106 | .38 | 81.8 | Cldy. |
| 13 | 88 | 73 | 79 | .051 | T | 81.9 | Pt.Cldy. |
| 14 | 86 | 74 | 77 | .091 | 1.79 | 81.6 | Pt.Cldy. |
| 15 | 88 | 73 | 80 | .050 | 0 | 81.8 | Cldy. |
| 16 | 90 | 73 | 79 | .067 | .32 | 82.0 | Pt.Cldy. |
| 17 | 88 | 74 | 78 | .079 | .03 | 81.7 | Pt.Cldy. |
| 18 | 86 | 74 | 78 | .059 | .07 | 81.7 | Cldy. |
| 19 | 85 | 74 | 78 | .157 | .01 | 81.3 | Pt.Cldy. |
| 20 | 86 | 73 | 78 | .110 | .04 | 81.2 | Pt.Cldy. |
| 21 | 87 | 74 | 79 | .055 | .07 | 81.5 | Cldy. |
| 22 | 86 | 73 | 78 | .115 | .04 | 81.6 | Pt.Cldy. |
| 23 | 82 | 75 | 79 | .086 | .08 | 80.9 | Cldy. |
| 24 | 87 | 74 | 81 | .099 | T | 81.8 | Pt.Cldy. |
| 25 | 85 | 77 | 79 | .098 | .37 | 82.7 | Pt.Cldy. |
| 26 | 85 | 73 | 78 | .126 | .22 | 83.1 | Cldy. |
| 27 | 85 | 74 | 78 | .051 | .21 | 83.1 | Pt.Cldy. |
| 28 | 88 | 73 | 80 | .118 | 0 | 83.1 | Pt.Cldy. |
| 29 | 88 | 74 | 78 | .079 | .04 | 83.8 | Pt.Cldy. |
| 30 | 89 | 76 | 80 | .059 | .04 | 83.2 | Cldy. |
| 31 | 88 | 75 | 79 | .118 | .19 | 82.8 | Cldy. |
| | 2672 | 2302 | * -- | 2.640 | 6.43 | * - | |
| Mean | 86.2 | 74.2 | 78.6 | .085 | -- | 82.2 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.831; highest 29.930 date 27

Lowest 29.690 date 31

**TEMPERATURE**

Highest 90 date 16; lowest 71 date 12

Greatest daily range 17 date 16

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 78.0 | 1915 77.8 | 1924 77.6 | 1933 77.8 |
| 1907 77.5 | 1916 76.8 | 1925 78.4 | 1934 77.2 |
| 1908 77.8 | 1917 77.1 | 1926 78.8 | 1935 78.4 |
| 1909 77.5 | 1918 77.7 | 1927 78.1 | 1936 78.0 |
| 1910 77.2 | 1919 78.1 | 1928 78.2 | 1937 78.7 |
| 1911 77.9 | 1920 77.8 | 1929 77.8 | 1938 77.4 |
| 1912 77.2 | 1921 77.5 | 1930 78.2 | 1939 78.4 |
| 1913 78.3 | 1922 77.8 | 1931 78.8 | 1940 78.6 |
| 1914 78.0 | 1923 77.7 | 1932 78.1 | 1941 |

Mean of this month for 35 years 77.9

Absolute maximum for this month for 35 years 95

Absolute minimum for this month for 35 years 68

Average daily [redacted] deficiency (−) of his month as compared with mean of 35 years -1.3

**EVAPORATION**

Total this month 2.640 Average daily .085 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.79 date 14

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 - | 1899 11.99 | 1913 8.30 | 1927 8.36 |
| 1886 - | 1900 20.27 | 1914 6.44 | 1928 10.70 |
| 1887 - | 1901 13.77 | 1915 10.49 | 1929 7.89 |
| 1888 - | 1902 - | 1916 10.17 | 1930 8.24 |
| 1889 9.80 | 1903 - | 1917 6.14 | 1931 9.26 |
| 1890 11.81 | 1904 - | 1918 9.16 | 1932 11.60 |
| 1891 9.68 | 1905 8.49 | 1919 12.11 | 1933 5.88 |
| 1892 6.69 | 1906 4.35 | 1920 6.48 | 1934 11.44 |
| 1893 - | 1907 9.26 | 1921 13.86 | 1935 10.73 |
| 1894 - | 1908 8.79 | 1922 9.03 | 1936 9.68 |
| 1895 - | 1909 8.77 | 1923 15.02 | 1937 9.13 |
| 1896 - | 1910 8.86 | 1924 10.38 | 1938 12.72 |
| 1897 - | 1911 10.90 | 1925 7.37 | 1939 12.93 |
| 1898 13.48 | 1912 17.89 | 1926 9.93 | 1940 6.43 |

Average of this month for 44 years 10.10

Total from January 1, 1940 to date 49.58

Average from January 1, to date 54.73

[redacted] deficiency (−) from January 1, 1940 to date as compared with average of corresponding period -5.15

**WIND**

Prevailing direction NW Total movement 4562 miles

Average hourly velocity 6.1 miles per hour

Maximum velocity (for five minutes) 23 miles per hour

from S on 7

**(WEATHER No. of days)**

Clear 0 Pt. Cloudy 17 Cloudy 14

Days on which .01 inch, or more, of rain occurred 25

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar None

Fogs: Light None

Fogs: Dense None

Thunderstorms 3, 4, 11, 14, 15, 16, 17, 29

Earthquakes (No of) 20

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 55420—Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month NOVEMBER, 1940

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 75 | 80 | .099 | .04 | 82.8 | Pt.Cldy. |
| 2 | 90 | 76 | 81 | .079 | .16 | 82.5 | Pt.Cldy. |
| 3 | 90 | 76 | 82 | .078 | .19 | 82.8 | Pt.Cldy. |
| 4 | 89 | 74 | 80 | .158 | 0 | 82.8 | Pt.Cldy. |
| 5 | 88 | 73 | 78 | .177 | .36 | 82.6 | Pt.Cldy. |
| 6 | 86 | 72 | 78 | .087 | .25 | 82.3 | Pt.Cldy. |
| 7 | 86 | 72 | 78 | .114 | .01 | 82.6 | Pt.Cldy. |
| 8 | 88 | 73 | 78 | .126 | T | 82.2 | Pt.Cldy |
| 9 | 88 | 73 | 78 | .126 | T | 82.8 | Pt.Cldy. |
| 10 | 86 | 72 | 77 | .110 | .71 | 81.9 | Cloudy |
| 11 | 86 | 74 | 78 | .063 | 1.10 | 82.1 | Cloudy |
| 12 | 85 | 74 | 77 | .024 | .24 | 81.3 | Cloudy |
| 13 | 83 | 73 | 77 | .079 | 1.15 | 80.2 | Cloudy |
| 14 | 82 | 73 | 76 | .055 | 0 | 80.6 | Cloudy |
| 15 | 84 | 72 | 76 | .087 | .12 | 81.1 | Cloudy |
| 16 | 85 | 72 | 78 | .062 | .10 | 81.7 | Pt.Cldy. |
| 17 | 81 | 73 | 76 | .126 | .06 | 81.5 | Cloudy |
| 18 | 86 | 73 | 77 | .079 | 0 | 82.2 | Pt.Cldy. |
| 19 | 89 | 73 | 79 | .079 | 0 | 82.0 | Pt.Cldy. |
| 20 | 82 | 75 | 78 | .098 | .18 | 81.4 | Cloudy |
| 21 | 84 | 73 | 78 | .087 | .02 | 81.5 | Pt.Cldy. |
| 22 | 86 | 73 | 78 | .051 | .05 | 81.3 | Cloudy |
| 23 | 91 | 75 | 79 | .050 | .38 | 82.0 | Cloudy |
| 24 | 84 | 73 | 78 | .079 | .11 | 82.1 | Cloudy |
| 25 | 83 | 73 | 77 | .078 | .08 | 81.5 | Cloudy |
| 26 | 87 | 71 | 78 | .099 | 0 | 82.4 | Clear |
| 27 | 90 | 72 | 79 | .083 | T | 82.5 | Pt.Cldy. |
| 28 | 87 | 74 | 80 | .173 | 0 | 81.8 | Pt.Cldy. |
| 29 | 91 | 74 | 81 | .079 | .04 | 81.9 | Pt.Cldy. |
| 30 | 91 | 75 | 82 | .138 | 0 | 82.1 | Pt.Cldy. |
| 31 | | | | | | | |
| Sum | 2577 | 2203 | * | 2.763 | 5.35 | * | |
| Mean | 86.6 | 73.4 | 79.9 | .092 | - | 82.0 | |

**ATMOSPHERIC PRESSURE** (REDUCED TO SEA LEVEL; INCHES)
(Bihourly)

Mean 29.807; highest 29.92 date 9
Lowest 29.68 date 20

**TEMPERATURE**

Highest 91 date 23; lowest 71 date 26
Greatest daily range 18 date 27
Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1906 77.7 | 1915 76.9 | 1924 76.7 | 1933 76.5 |
| 1907 77.4 | 1916 76.5 | 1925 78.6 | 1934 76.9 |
| 1908 76.9 | 1917 76.1 | 1926 77.7 | 1935 77.0 |
| 1909 75.7 | 1918 78.2 | 1927 78.3 | 1936 78.8 |
| 1910 77.3 | 1919 77.4 | 1928 76.9 | 1937 77.6 |
| 1911 77.6 | 1920 78.2 | 1929 78.3 | 1938 77.4 |
| 1912 77.1 | 1921 78.5 | 1930 79.2 | 1939 78.3 |
| 1913 77.4 | 1922 77.0 | 1931 76.4 | 1940 78.4 |
| 1914 78.0 | 1923 78.6 | 1932 77.3 | 1941 |

Mean of this month for 35 years 77.5
Absolute maximum for this month for 35 years 83
Absolute minimum for this month for 35 years 67
Average daily excess, (+) or deficiency (−) of his month as compared with mean of 35 years +0.9

**EVAPORATION**

Total this month 2.763 Average daily .092 inches

**PRECIPITATION**

Greatest precipitation in 24 hours 1.34 date 11-12
Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 - | 1899 8.93 | 1913 10.63 | 1927 5.82 |
| 1886 - | 1900 13.01 | 1914 10.35 | 1928 20.51 |
| 1887 - | 1901 12.40 | 1915 7.05 | 1929 12.62 |
| 1888 - | 1902 - | 1916 8.77 | 1930 5.12 |
| 1889 6.46 | 1903 - | 1917 13.77 | 1931 12.60 |
| 1890 6.46 | 1904 - | 1918 9.41 | 1932 10.18 |
| 1891 9.72 | 1905 8.81 | 1919 4.97 | 1933 13.28 |
| 1892 10.91 | 1906 13.37 | 1920 19.22 | 1934 12.89 |
| 1893 - | 1907 10.51 | 1921 7.11 | 1935 19.70 |
| 1894 - | 1908 9.12 | 1922 8.44 | 1936 8.29 |
| 1895 - | 1909 15.14 | 1923 8.81 | 1937 10.18 |
| 1896 - | 1910 4.29 | 1924 12.69 | 1938 11.23 |
| 1897 - | 1911 7.97 | 1925 9.52 | 1939 6.55 |
| 1898 11.13 | 1912 6.38 | 1926 9.63 | 1940 5.35 |

Average of this month for 44 years 10.56
Total from January 1, 1940 to date 54.93
Average from January 1, to date 65.09
Excess (+) or deficiency (−) from January 1, 1940 to date as compared with average of corresponding period -10.16

**WIND**

Prevailing direction N-W Total movement 3854 miles
Average hourly velocity 5.4 miles per hour
Maximum velocity (for five minutes) 24 miles per hour
from N-W on 17th

**(WEATHER No. of days)**

Clear 1 Pt. Cloudy 17 Cloudy 12
Days on which .01 inch, or more, of rain occurred 20

**MISCELLANEOUS PHENOMENA** (DATES OF)

Halos: Lunar 0
Fogs: Light 0
Fogs: Dense 0
Thunderstorms 9-13
Earthquakes (No. of) 41

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

# THE PANAMA CANAL

MR 55420—Panama Canal—8-5-37—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SUBSECTION OF HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month December, 1940

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bihourly | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 75 | 82 | .173 | 0 | 83.2 | Pt.Cldy |
| 2 | 89 | 75 | 81 | .146 | 0 | 83.1 | Pt.Cldy |
| 3 | 89 | 76 | 79 | .145 | T | 83.3 | Pt.Cldy |
| 4 | 90 | 72 | 80 | .083 | 0 | 83.0 | Pt.Cldy |
| 5 | 89 | 73 | 80 | .193 | 0 | 82.3 | Pt.Cldy |
| 6 | 90 | 74 | 80 | .248 | 0 | 82.9 | Pt.Cldy |
| 7 | 88 | 73 | 79 | .201 | .01 | 82.1 | Pt.Cldy |
| 8 | 87 | 74 | 78 | .102 | .01 | 82.4 | Pt.Cldy |
| 9 | 86 | 74 | 78 | .205 | .02 | 82.2 | Cloudy |
| 10 | 88 | 74 | 80 | .090 | T | 82.3 | Pt.Cldy |
| 11 | 90 | 75 | 82 | .126 | T | 82.1 | Pt.Cldy |
| 12 | 91 | 75 | 82 | .122 | T | 82.1 | Pt.Cldy |
| 13 | 89 | 76 | 81 | .169 | 0 | 82.2 | Pt.Cldy |
| 14 | 90 | 74 | 81 | .217 | 0 | 82.7 | Pt.Cldy |
| 15 | 90 | 75 | 82 | .208 | 0 | 82.4 | Pt.Cldy |
| 16 | 89 | 75 | 80 | .225 | .01 | 82.3 | Pt.Cldy |
| 17 | 89 | 75 | 80 | .122 | .08 | 81.6 | Pt.Cldy |
| 18 | 87 | 74 | 80 | .114 | T | 81.7 | Pt.Cldy |
| 19 | 88 | 74 | 80 | .098 | 0 | 81.8 | Pt.Cldy |
| 20 | 90 | 74 | 80 | .071 | 0 | 82.0 | Pt.Cldy |
| 21 | 92 | 72 | 80 | .157 | 0 | 83.2 | Clear |
| 22 | 91 | 73 | 80 | .114 | 0 | 83.2 | Clear |
| 23 | 90 | 73 | 80 | .197 | 0 | 83.8 | Pt.Cldy |
| 24 | 89 | 72 | 78 | .185 | .01 | 83.8 | Clear |
| 25 | 88 | 72 | 79 | .111 | 0 | 83.2 | Pt.Cldy |
| 26 | 87 | 72 | 80 | .137 | 0 | 83.6 | Pt.Cldy |
| 27 | 88 | 75 | 80 | .181 | .05 | 83.8 | Pt.Cldy |
| 28 | 91 | 74 | 80 | .119 | T | 84.0 | Pt.Cldy |
| 29 | 87 | 73 | 79 | .157 | .01 | 83.0 | Pt.Cldy |
| 30 | 89 | 73 | 80 | .150 | 0 | 82.7 | Pt.Cldy |
| 31 | 90 | 73 | 80 | .196 | 0 | 82.8 | Pt.Cldy |
| | 2763 | 2289 | * — | 4.762 | 0.20 | * — | |
| Mean | 89.1 | 73.8 | 80.1 | 0.154 | — | 82.7 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time. * Sum and Mean of Bihourly values.

### ATMOSPHERIC PRESSURE (REDUCED TO SEA LEVEL; INCHES)

(Bihourly)

Mean 29.798 ; highest 29.940 date 23d

Lowest 29.650 date 12th

### TEMPERATURE

Highest 92 date 1st ; lowest 72 date 26th

Greatest daily range 20 date 21st

Bihourly Mean for this month in:

| | | | |
|---|---|---|---|
| 1905 77.4 | 1915 78.5 | 1924 77.7 | 1933 76.9 |
| 1907 79.1 | 1916 77.6 | 1925 79.5 | 1934 78.7 |
| 1908 77.6 | 1917 76.7 | 1926 77.7 | 1935 78.3 |
| 1909 76.6 | 1918 79.6 | 1927 78.6 | 1936 78.1 |
| 1910 77.3 | 1919 78.4 | 1928 78.1 | 1937 77.8 |
| 1911 79.3 | 1920 78.5 | 1929 78.3 | 1938 77.3 |
| 1912 78.7 | 1921 78.3 | 1930 79.6 | 1939 79.1 |
| 1913 78.3 | 1922 77.4 | 1931 78.5 | 1940 80.1 |
| 1914 79.3 | 1923 78.2 | 1932 77.9 | 1941 — |

Mean of this month for 35 years 78.3

Absolute maximum for this month for 35 years 94

Absolute minimum for this month for 35 years 66

Average daily excess, (+) [redacted] of this month as compared with mean of 35 years +1.8

### EVAPORATION

Total this month 4.762 Average daily 0.154 inches

### PRECIPITATION

Greatest precipitation in 24 hours .09 date 16th & 17th

Total precipitation this month in:

| | | | |
|---|---|---|---|
| 1885 — | 1899 4.35 | 1913 4.84 | 1927 2.95 |
| 1886 — | 1900 1.85 | 1914 8.28 | 1928 6.95 |
| 1887 — | 1901 2.32 | 1915 3.60 | 1929 4.17 |
| 1888 — | 1902 — | 1916 5.86 | 1930 2.44 |
| 1889 0.98 | 1903 — | 1917 4.09 | 1931 4.96 |
| 1890 5.51 | 1904 — | 1918 0.55 | 1932 2.66 |
| 1891 2.48 | 1905 4.04 | 1919 1.81 | 1933 7.35 |
| 1892 2.01 | 1906 5.52 | 1920 1.94 | 1934 2.71 |
| 1893 — | 1907 3.46 | 1921 5.19 | 1935 4.31 |
| 1894 — | 1908 4.16 | 1922 3.82 | 1936 1.84 |
| 1895 — | 1909 12.39 | 1923 3.94 | 1937 16.81 |
| 1896 — | 1910 10.63 | 1924 8.31 | 1938 7.91 |
| 1897 — | 1911 1.99 | 1925 1.88 | 1939 6.23 |
| 1898 1.89 | 1912 3.27 | 1926 8.38 | 1940 0.20 |

Average of this month for 44 years 4.56

Total from January 1, 1940 to date 55.13

Average from January 1, to date 69.65

[redacted] deficiency (−) from January 1, 1940 to date as compared with average of corresponding period −14.52

### WIND

Prevailing direction NW Total movement 4416 miles

Average hourly velocity 5.9 miles per hour

Maximum velocity (for five minutes) 20 miles per hour

from N on 5th

### (WEATHER No. of days)

Clear 3 Pt. Cloudy 27 Cloudy 1

Days on which .01 inch, or more, of rain occurred 8

### MISCELLANEOUS PHENOMENA (DATES OF)

Halos: Lunar None

Fogs: Light 26th

Fogs: Dense None

Thunderstorms None

Earthquakes (Number of) 30

066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month JANUARY, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 73 | 81 | .193 | 0 | 82.5 | Pt.Cldy |
| 2 | 90 | 73 | 82 | .221 | 0 | 82.5 | Pt.Cldy |
| 3 | 90 | 72 | 81 | .271 | 0 | 82.1 | Clear |
| 4 | 90 | 73 | 82 | .193 | T | 80.9 | Pt.Cldy |
| 5 | 86 | 70 | 78 | .181 | T | 80.8 | Pt.Cldy |
| 6 | 88 | 69 | 78 | .162 | .02 | 80.7 | Pt.Cldy |
| 7 | 86 | 71 | 78 | .102 | .58 | 80.2 | Pt.Cldy |
| 8 | 89 | 72 | 80 | .303 | 0 | 80.3 | Pt.Cldy |
| 9 | 90 | 72 | 81 | .205 | 0 | 81.0 | Pt.Cldy |
| 10 | 82 | 71 | 76 | .264 | .27 | 80.6 | Pt.Cldy |
| 11 | 82 | 70 | 76 | .165 | T | 80.8 | Pt.Cldy |
| 12 | 86 | 71 | 78 | .185 | 0 | 80.4 | Pt.Cldy |
| 13 | 87 | 69 | 78 | .359 | 0 | 80.2 | Clear |
| 14 | 85 | 72 | 78 | .248 | 0 | 79.8 | Pt.Cldy |
| 15 | 90 | 72 | 81 | .150 | 0 | 79.0 | Pt.Cldy |
| 16 | 90 | 74 | 82 | .181 | 0 | 79.0 | Pt.Cldy |
| 17 | 91 | 74 | 82 | .248 | 0 | 78.3 | Clear |
| 18 | 92 | 74 | 83 | .209 | 0 | 78.4 | Pt.Cldy |
| 19 | 91 | 74 | 82 | .220 | 0 | 78.2 | Pt.Cldy |
| 20 | 90 | 74 | 82 | .315 | 0 | 77.8 | Pt.Cldy |
| 21 | 90 | 72 | 81 | .307 | 0 | 78.4 | Clear |
| 22 | 91 | 70 | 80 | .273 | 0 | 79.2 | Clear |
| 23 | 91 | 73 | 82 | .270 | 0 | 79.8 | Clear |
| 24 | 91 | 74 | 82 | .256 | 0 | 79.8 | Pt.Cldy |
| 25 | 91 | 74 | 82 | .221 | 0 | 78.4 | Pt.Cldy |
| 26 | 91 | 72 | 82 | .161 | 0 | 77.2 | Pt.Cldy |
| 27 | 88 | 72 | 80 | .357 | T | 76.8 | Pt.Cldy |
| 28 | 89 | 70 | 80 | .213 | 0 | 76.4 | Clear |
| 29 | 89 | 71 | 80 | .291 | 0 | 77.2 | Pt.Cldy |
| 30 | 88 | 71 | 80 | .284 | 0 | 77.9 | Pt.Cldy |
| 31 | 87 | 72 | 80 | .295 | 0 | 78.2 | Pt.Cldy |
| | 2750 | 2231 | 2488 | 7.303 | .87 | - | |
| Mean | 88.7 | 72.0 | 80.3 | .236 | - | 79.4 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.857

Highest 30.010 Date 12th

Lowest 29.790 Date 26th

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-Hourly) 79.2

Highest 92 Date 18th

Lowest 69 Date 13th

Greatest daily range 21 Date 22d

Mean for this month for 36 years 78.3

Maximum for this month for 36 years 93

Minimum for this month for 36 years 63

Average excess of this month compared with a mean of 36 years +0.9

### PRECIPITATION
(Inches)

Total for this month 0.87

Greatest amount in 24 hours 0.60 Date 6 & 7th

Average for this month for 43 years 1.06

Total from January 1, 1941 to date 0.87

Average from January 1 to date 1.06

Accumulated deficiency from January 1 to date compared with average -0.19

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 0.43 | 1917 0.13 | 1928 0.02 | 1939 0.43 |
| 1907 0.29 | 1918 1.78 | 1929 0.17 | 1940 3.14 |
| 1908 0.12 | 1919 0.28 | 1930 0.05 | 1941 0.87 |
| 1909 2.90 | 1920 T | 1931 T | 1942 |
| 1910 1.22 | 1921 0.88 | 1932 0.38 | 1943 |
| 1911 0.83 | 1922 1.73 | 1933 1.63 | 1944 |
| 1912 T | 1923 0.80 | 1934 4.04 | 1945 |
| 1913 0.63 | 1924 T | 1935 0.88 | 1946 |
| 1914 0.32 | 1925 1.44 | 1936 0.83 | 1947 |
| 1915 2.12 | 1926 0.01 | 1937 5.07 | 1948 |
| 1916 1.41 | 1927 0.18 | 1938 2.20 | 1949 |

### WIND

Prevailing direction Northwest

Total movement 6951 miles

Average hourly velocity 9.3 miles per hour

Maximum velocity for five minutes 34 miles per hour from Northwest on 31st

### MISCELLANEOUS

Total evaporation for this month 7.303 inches

Average daily evaporation 0.236 inches

Relative humidity, bihourly mean, percent 80.7

Sunshine, percentage of possible 59

Number of days clear 7 Partly cloudy 24 Cloudy 0

Number of days with .01 inch rain or more 3

### DATES

Fogs, light 0

Fogs, dense 0

Halos, lunar 0

Thunderstorms 6th

Earthquakes (No. of) 17

Balboa Harbor Water Temp. Max. 84; Min. 76

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month February, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 80 | .205 | .11 | 78.7 | Pt.Cldy. |
| 2 | 91 | 73 | 82 | .175 | T | 78.5 | Pt.Cldy. |
| 3 | 92 | 73 | 82 | .126 | 0 | 77.6 | Pt.Cldy. |
| 4 | 92 | 73 | 82 | .209 | 0 | 76.2 | Pt.Cldy. |
| 5 | 93 | 74 | 84 | .283 | 0 | 76.2 | Pt.Cldy. |
| 6 | 93 | 74 | 84 | .241 | 0 | 76.3 | Clear |
| 7 | 91 | 74 | 82 | .234 | 0 | 76.7 | Clear |
| 8 | 90 | 73 | 82 | .197 | 0 | 78.4 | Pt.Cldy. |
| 9 | 87 | 73 | 80 | .157 | 0 | 78.8 | Pt.Cldy. |
| 10 | 89 | 74 | 82 | .154 | .25 | 78.3 | Pt.Cldy. |
| 11 | 92 | 74 | 83 | .130 | .06 | 77.0 | Pt.Cldy. |
| 12 | 93 | 74 | 84 | .153 | .01 | 77.4 | Pt.Cldy. |
| 13 | 88 | 74 | 81 | .236 | T | 77.8 | Cloudy |
| 14 | 90 | 74 | 82 | .158 | 0 | 78.3 | Pt.Cldy. |
| 15 | 87 | 74 | 80 | .220 | .01 | 78.5 | Pt.Cldy. |
| 16 | 91 | 75 | 83 | .149 | .09 | 78.9 | Pt.Cldy. |
| 17 | 91 | 71 | 81 | .264 | 0 | 78.9 | Pt.Cldy. |
| 18 | 91 | 74 | 82 | .252 | 0 | 79.5 | Pt.Cldy. |
| 19 | 92 | 76 | 84 | .280 | 0 | 78.9 | Pt.Cldy. |
| 20 | 94 | 77 | 86 | .228 | 0 | 78.6 | Clear |
| 21 | 95 | 76 | 85 | .347 | 0 | 78.1 | Pt.Cldy. |
| 22 | 91 | 76 | 84 | .264 | 0 | 77.5 | Pt. Cldy |
| 23 | 91 | 74 | 82 | .342 | T | 77.4 | Pt.Cldy. |
| 24 | 93 | 75 | 84 | .229 | 0 | 78.3 | Pt.Cldy. |
| 25 | 90 | 75 | 82 | .236 | 0 | 78.5 | Pt.Cldy. |
| 26 | 94 | 74 | 84 | .189 | 0 | 78.9 | Pt.Cldy. |
| 27 | 93 | 75 | 84 | .217 | 0 | 79.5 | Pt.Cldy. |
| 28 | 92 | 74 | 83 | .272 | 0 | 78.3 | Pt.Cldy. |
| 29 | - | - | - | - | - | - | - |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Total | 2252 | 2078 | | 6.147 | 0.53 | - | |
| Mean | 91.1 | 74.2 | 82.6 | 0.220 | - | 78.1 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.831
Highest 29.940 Date 10th
Lowest 29.720 Date 2nd

### TEMPERATURE
(Degrees Fahrenheit)

Bi-Hourly. Monthly mean 81.1
Highest 95 Date 21
Lowest 71 Date 17
Greatest daily range 20 Date 17
Mean for this month for 36 years 78.6
Maximum for this month for 36 years 95
Minimum for this month for 36 years 64
Average excess or deficiency of this month compared with a mean of 36 years + 2.5

### PRECIPITATION
(Inches)

Total for this month 0.53
Greatest amount in 24 hours 0.25 Date 10th
Average for this month for 43 years 0.63
Total from January 1, 1941 to date 1.40
Average from January 1 to date 1.69
Accumulated excess or deficiency from January 1 to date compared with average -0.29

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .33 | 1917 .19 | 1928 .38 | 1939 T |
| 1907 .04 | 1918 T | 1929 .08 | 1940 .11 |
| 1908 .24 | 1919 T | 1930 .85 | 1941 .53 |
| 1909 2.90 | 1920 T | 1931 T | 1942 |
| 1910 .43 | 1921 2.37 | 1932 .46 | 1943 |
| 1911 2.75 | 1922 2.03 | 1933 .30 | 1944 |
| 1912 .08 | 1923 T | 1934 .07 | 1945 |
| 1913 .22 | 1924 .06 | 1935 .36 | 1946 |
| 1914 .02 | 1925 .07 | 1936 T | 1947 |
| 1915 2.95 | 1926 .07 | 1937 .56 | 1948 |
| 1916 1.48 | 1927 1.99 | 1938 .01 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 5795 miles
Average hourly velocity 8.5 miles per hour
Maximum velocity for five minutes (True) 25 miles per hour from North on 15th

### MISCELLANEOUS

Total evaporation for this month 6.147 inches
Average daily evaporation 0.220 inches
Relative humidity, bihourly mean, percent 81.8
Sunshine, percentage of possible 51
Number of days clear 3 Partly cloudy 24 Cloudy 1
Number of days with .01 inch rain or more 6

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms (No. of) 13
Earthquakes 0

Balboa Harbor Water Temperature: Max. 82°; Min. 74°

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights ; Month March , 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 75 | 82 | .229 | .09 | 78.2 | Pt.Cldy |
| 2 | 83 | 73 | 78 | .275 | .06 | 77.8 | Pt.Cldy |
| 3 | 86 | 72 | 79 | .276 | 0 | 78.1 | Pt.Cldy |
| 4 | 92 | 75 | 84 | .173 | 0 | 78.5 | Pt.Cldy |
| 5 | 94 | 76 | 85 | .205 | 0 | 79.0 | Clear |
| 6 | 93 | 75 | 84 | .370 | 0 | 79.1 | Clear |
| 7 | 94 | 75 | 84 | .264 | 0 | 79.2 | Pt.Cldy |
| 8 | 91 | 73 | 82 | .208 | 0 | 79.5 | Pt.Cldy |
| 9 | 92 | 72 | 82 | .201 | 0 | 79.1 | Pt.Cldy |
| 10 | 92 | 72 | 82 | .256 | 0 | 77.8 | Pt.Cldy |
| 11 | 91 | 74 | 82 | .276 | 0 | 77.2 | Pt.Cldy |
| 12 | 94 | 72 | 83 | .346 | 0 | 76.8 | Pt.Cldy |
| 13 | 94 | 73 | 84 | .304 | 0 | 77.6 | Clear |
| 14 | 93 | 70 | 82 | .393 | 0 | 77.0 | Pt.Cldy |
| 15 | 92 | 72 | 82 | .323 | 0 | 76.5 | Pt.Cldy |
| 16 | 90 | 71 | 80 | .315 | 0 | 77.3 | Clear |
| 17 | 92 | 73 | 82 | .373 | 0 | 77.3 | Pt.Cldy |
| 18 | 92 | 76 | 84 | .264 | 0 | 77.8 | Pt.Cldy |
| 19 | 93 | 76 | 84 | .307 | 0 | 77.8 | Pt.Cldy |
| 20 | 93 | 77 | 85 | .339 | 0 | 78.1 | Pt.Cldy |
| 21 | 93 | 75 | 84 | .299 | 0 | 78.1 | Pt.Cldy |
| 22 | 89 | 75 | 82 | .280 | 0 | 77.7 | Pt.Cldy |
| 23 | 92 | 73 | 82 | .263 | 0 | 77.7 | Pt.Cldy |
| 24 | 94 | 73 | 84 | .276 | 0 | 77.0 | Pt.Cldy |
| 25 | 94 | 74 | 84 | .256 | 0 | 76.2 | Pt.Cldy |
| 26 | 95 | 71 | 83 | .244 | 0 | 77.0 | Pt.Cldy |
| 27 | 92 | 73 | 82 | .216 | 0 | 76.8 | Clear |
| 28 | 92 | 75 | 84 | .260 | 0 | 76.5 | Pt.Cldy |
| 29 | 94 | 73 | 84 | .209 | 0 | 77.3 | Pt.Cldy |
| 30 | 92 | 72 | 82 | .311 | 0 | 76.9 | Pt.Cldy |
| 31 | 84 | 73 | 78 | .323 | 0 | 75.0 | Pt.Cldy |
| Total | 2842 | 2279 | - | 8.634 | 0.17 | - | |
| Mean | 91.7 | 73.5 | 82.6 | 0.279 | - | 77.6 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.835
Highest 30.020 Date 2
Lowest 29.680 Date 19

### TEMPERATURE
(Degrees Fahrenheit)

Bi-Hourly
Monthly mean 81.6
Highest 95 Date 26
Lowest 70 Date 14
Greatest daily range 24 Date 26
Mean for this month for 36 years 79.8
Maximum for this month for 36 years 96
Minimum for this month for 36 years 65
Average excess or deficiency of this month compared with a mean of 36 years +1.8

### PRECIPITATION
(Inches)

Total for this month 0.17
Greatest amount in 24 hours 0.17 Date 1-2
Average for this month for 43 years 0.69
Total from January 1, 1941 to date 1.57
Average from January 1 to date 2.38
Accumulated ~~excess or~~ deficiency from January 1 to date compared with average -0.81

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .05 | 1917 .02 | 1928 4.07 | 1939 T |
| 1907 T | 1918 1.25 | 1929 2.19 | 1940 .75 |
| 1908 .03 | 1919 T | 1930 .01 | 1941 .17 |
| 1909 .18 | 1920 .09 | 1931 .70 | 1942 |
| 1910 1.83 | 1921 2.98 | 1932 .13 | 1943 |
| 1911 .26 | 1922 1.02 | 1933 .46 | 1944 |
| 1912 .01 | 1923 T | 1934 .20 | 1945 |
| 1913 .43 | 1924 .07 | 1935 T | 1946 |
| 1914 T | 1925 .07 | 1936 .36 | 1947 |
| 1915 T | 1926 0 | 1937 2.44 | 1948 |
| 1916 .89 | 1927 .01 | 1938 .25 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 7453 miles
Average hourly velocity 10.0 miles per hour
Maximum velocity for five minutes 25 (True) miles per hour from N on 9th

### MISCELLANEOUS

Total evaporation for this month 8.634 inches
Average daily evaporation 0.279 inches
Relative humidity, bihourly mean, percent 79.1
Sunshine, percentage of possible 34
Number of days clear 6 Partly cloudy 25 Cloudy 0
Number of days with .01 inch rain or more 2

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 0
Earthquakes (Number of) 65

Balboa Harbor Temperature: Max 82; Min 74.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month April, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 74 | 84 | .145 | T | 75.6 | Pt. Cldy. |
| 2 | 94 | 74 | 84 | .154 | 0 | 76.8 | Pt. Cldy. |
| 3 | 91 | 75 | 83 | .161 | 0 | 77.5 | Pt. Cldy. |
| 4 | 91 | 74 | 82 | .233 | .01 | 78.0 | Pt. Cldy. |
| 5 | 90 | 74 | 82 | .114 | 0 | 78.2 | Pt. Cldy. |
| 6 | 92 | 74 | 83 | .150 | 0 | 78.2 | Pt. Cldy. |
| 7 | 90 | 75 | 82 | .279 | 0 | 79.0 | Pt. Cldy. |
| 8 | 89 | 76 | 82 | .166 | 0 | 79.1 | Pt. Cldy. |
| 9 | 93 | 75 | 84 | .153 | .95 | 79.7 | Pt. Cldy. |
| 10 | 92 | 76 | 84 | .177 | 0 | 80.2 | Pt. Cldy. |
| 11 | 90 | 77 | 84 | .205 | T | 80.5 | Pt. Cldy. |
| 12 | 88 | 76 | 82 | .248 | T | 81.2 | Pt. Cldy. |
| 13 | 92 | 74 | 83 | .244 | 0 | 81.4 | Pt. Cldy. |
| 14 | 91 | 71 | 81 | .248 | 0 | 81.4 | Pt. Cldy. |
| 15 | 92 | 73 | 82 | .256 | 0 | 81.5 | Pt. Cldy. |
| 16 | 93 | 75 | 84 | .232 | 0 | 81.5 | Pt. Cldy. |
| 17 | 94 | 74 | 84 | .268 | 0 | 81.8 | Pt. Cldy. |
| 18 | 96 | 75 | 86 | .303 | 0 | 82.0 | Pt. Cldy. |
| 19 | 96 | 76 | 86 | .256 | 0 | 82.7 | Pt. Cldy. |
| 20 | 95 | 77 | 86 | .295 | 0 | 83.2 | Pt. Cldy. |
| 21 | 91 | 76 | 84 | .264 | .60 | 82.3 | Pt. Cldy. |
| 22 | 92 | 76 | 84 | .196 | .02 | 81.8 | Pt. Cldy. |
| 23 | 95 | 75 | 85 | .197 | 0 | 80.8 | Pt. Cldy. |
| 24 | 94 | 78 | 86 | .296 | 0 | 80.0 | Pt. Cldy. |
| 25 | 91 | 77 | 84 | .197 | .25 | 80.3 | Pt. Cldy. |
| 26 | 91 | 77 | 84 | .138 | 0 | 80.4 | Pt. Cldy. |
| 27 | 94 | 76 | 85 | .216 | .48 | 81.2 | Pt. Cldy. |
| 28 | 94 | 75 | 84 | .158 | 2.42 | 82.3 | Cldy. |
| 29 | 86 | 78 | 82 | .118 | 0 | 83.0 | Pt. Cldy. |
| 30 | 88 | 78 | 83 | .079 | .01 | 84.2 | Pt. Cldy. |
| 31 | | | | | | | |
| Total | 2798 | 2268 | 2909 | 6.146 | 4.74 | – | |
| Mean | 91.9 | 75.4 | 83.6 | .205 | – | 80.5 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.809
Highest 29.950 Date 16
Lowest 29.690 Date 27

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean Bi-Hourly 82.5
Highest 96 Date 19
Lowest 71 Date 14
Greatest daily range 21 Date 18
Mean for this month for 36 years 80.4
Maximum for this month for 36 years 87
Minimum for this month for 36 years 64
Average excess or deficiency of this month compared with a mean of 36 years + 2.1

### PRECIPITATION
(Inches)

Total for this month 4.74
Greatest amount in 24 hours 2.42 Date 28
Average for this month for 43 years 2.87
Total from January 1, 1941 to date 6.31
Average from January 1 to date 5.21
Accumulated excess or deficiency from January 1 to date compared with average + 1.06

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 7.76 | 1917 2.24 | 1928 3.38 | 1939 0.94 |
| 1907 T | 1918 4.52 | 1929 0.43 | 1940 1.05 |
| 1908 1.37 | 1919 6.43 | 1930 6.78 | 1941 4.74 |
| 1909 [illegible] | 1920 3.02 | 1931 4.43 | 1942 |
| 1910 2.71 | 1921 1.14 | 1932 7.36 | 1943 |
| 1911 [illegible] | 1922 0.16 | 1933 3.46 | 1944 |
| 1912 2.68 | 1923 0.83 | 1934 5.09 | 1945 |
| 1913 0.03 | 1924 3.72 | 1935 2.40 | 1946 |
| 1914 4.80 | 1925 2.63 | 1936 1.64 | 1947 |
| 1915 [illegible] | 1926 0.08 | 1937 [illegible] | 1948 |
| 1916 [illegible] | 1927 4.87 | 1938 1.93 | 1949 |

### WIND

Prevailing direction NW
Total movement 5148 miles
Average hourly velocity 7.2 miles per hour
Maximum velocity for five minutes 25 (true) miles per hour from NW on 20

### MISCELLANEOUS

Total evaporation for this month 6.146 inches
Average daily evaporation .205 inches
Relative humidity, bihourly mean, percent 83.1
Sunshine, percentage of possible 35
Number of days clear 0 Partly cloudy 7 Cloudy 1
Number of days with .01 inch rain or more 8

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 4, 8, 25, 28 (Number of) 18
Earthquakes
Balboa Harbor Temperature Max. 86 Min. 74

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month May, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 77 | 82 | .118 | 0 | 84.8 | Pt. cldy. |
| 2 | 85 | 75 | 80 | .118 | 0 | 84.0 | cldy. |
| 3 | 90 | 74 | 82 | .118 | 0 | 84.3 | Pt. cldy. |
| 4 | 89 | 74 | 82 | .098 | 0 | 85.2 | Pt. cldy. |
| 5 | 87 | 76 | 82 | .110 | .14 | 84.5 | Pt. cldy. |
| 6 | 84 | 75 | 80 | .118 | .27 | 83.9 | Cldy. |
| 7 | 92 | 75 | 84 | .075 | 0 | 85.4 | Pt. cldy. |
| 8 | 92 | 77 | 84 | .138 | .05 | 85.7 | Pt. cldy. |
| 9 | 86 | 78 | 82 | .137 | .17 | 84.8 | Cldy. |
| 10 | 86 | 74 | 80 | .079 | .75 | 84.3 | Cldy. |
| 11 | 85 | 73 | 79 | .059 | 1.20 | 83.9 | Pt. Cldy. |
| 12 | 89 | 74 | 82 | .040 | .17 | 84.6 | Cldy. |
| 13 | 91 | 75 | 83 | .040 | .04 | 84.8 | Pt. cldy. |
| 14 | 89 | 76 | 82 | .177 | .27 | 84.4 | Pt. cldy. |
| 15 | 94 | 76 | 85 | .059 | 0 | 84.4 | Pt. cldy. |
| 16 | 93 | 78 | 86 | .236 | 0 | 85.0 | Pt. cldy. |
| 17 | 94 | 77 | 86 | .197 | 0 | 84.6 | Pt. cldy. |
| 18 | 93 | 78 | 86 | .275 | 1.05 | 84.9 | Pt. cldy. |
| 19 | 92 | 78 | 85 | .119 | .91 | 84.2 | Cldy. |
| 20 | 90 | 78 | 84 | .118 | 0 | 82.7 | Pt. cldy. |
| 21 | 90 | 77 | 84 | .098 | 0 | 83.0 | Cldy. |
| 22 | 91 | 76 | 84 | .138 | 0 | 82.7 | Pt. cldy. |
| 23 | 90 | 77 | 84 | .079 | 0 | 82.5 | Pt. cldy. |
| 24 | 92 | 77 | 84 | .138 | 1.15 | 82.9 | Cldy. |
| 25 | 86 | 73 | 80 | .118 | 2.31 | 83.0 | Cldy. |
| 26 | 84 | 75 | 80 | .078 | .44 | 82.0 | Cldy. |
| 27 | 89 | 77 | 83 | .040 | .08 | 82.9 | Pt. cldy. |
| 28 | 91 | 76 | 84 | .059 | .03 | 84.0 | Pt. cldy. |
| 29 | 87 | 77 | 82 | .079 | 0 | 83.2 | Cldy. |
| 30 | 89 | 77 | 83 | .078 | 0 | 83.9 | Pt. cldy. |
| 31 | 91 | 77 | 84 | .079 | 0 | 84.5 | Pt. cldy. |
| | 2769 | 2357 | | 34413 | 9.03 | | |
| Mean | 89.3 | 76.0 | 82.6 | .110 | - | 84.0 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.785
Highest 29.920 Date 6
Lowest 29.650 Date 24

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi Hourly) 81.3
Highest 94 Date 15
Lowest 73 Date 11
Greatest daily range 18 Date 15
Mean for this month for 36 years 79.4
Maximum for this month for 36 years 96
Minimum for this month for 36 years 69
Average excess [redacted] of this month compared with a mean of 36 years +1.9

### PRECIPITATION
(Inches)

Total for this month 9.03
Greatest amount in 24 hours 2.70 Date 25 + 26
Average for this month for 43 years 7.97
Total from January 1, 1941 to date 15.34
Average from January 1 to date 13.22
Accumulated excess [redacted] from January 1 to date compared with average +2.12

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 10.68 | 1917 | 5.75 | 1928 | 4.20 | 1939 | 4.61 |
| 1907 | 4.44 | 1918 | 6.75 | 1929 | 4.04 | 1940 | 7.26 |
| 1908 | 7.64 | 1919 | 5.21 | 1930 | 9.70 | 1941 | 9.03 |
| 1909 | 9.10 | 1920 | 3.31 | 1931 | 13.15 | 1942 | |
| 1910 | 9.89 | 1921 | 8.60 | 1932 | 9.39 | 1943 | |
| 1911 | 11.04 | 1922 | 9.88 | 1933 | 7.96 | 1944 | |
| 1912 | 10.71 | 1923 | 5.84 | 1934 | 4.96 | 1945 | |
| 1913 | 8.27 | 1924 | 5.51 | 1935 | 8.10 | 1946 | |
| 1914 | 6.98 | 1925 | 6.73 | 1936 | 6.36 | 1947 | |
| 1915 | 6.42 | 1926 | 4.16 | 1937 | 10.98 | 1948 | |
| 1916 | 12.59 | 1927 | 9.06 | 1938 | 12.03 | 1949 | |

### WIND

Prevailing direction NW
Total movement 3919 miles
Average hourly velocity 5.3 miles per hour
Maximum velocity for five minutes 22 (true) miles per hour from SE on 25

### MISCELLANEOUS

Total evaporation for this month 3.413 inches
Average daily evaporation .110 inches
Relative humidity, bihourly mean, percent 88.9
Sunshine, percentage of possible 42
Number of days clear 0 Partly cloudy 20 Cloudy 11
Number of days with .01 inch rain or more 16

### DATES

Fogs, light 22
Fogs, dense 0
Halos, lunar 0
Thunderstorms 9, 19, 31
Earthquakes (Number of) 7

Balboa Harbor Temperature max. 88
" " " min. 80

066-7

MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month June, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bi H | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 77 | 82 | .079 | .01 | 86.2 | Pt.Cldy. |
| 2 | 90 | 77 | 76 | .138 | 0 | 85.7 | Pt.Cldy. |
| 3 | 90 | 77 | 81 | .079 | 0 | 85.5 | Pt.Cldy. |
| 4 | 88 | 75 | 81 | .098 | 0 | 85.9 | Pt.Cldy |
| 5 | 92 | 75 | 82 | .098 | 0 | 85.9 | Pt.Cldy |
| 6 | 94 | 76 | 84 | .158 | 0 | 85.9 | Pt.Cldy |
| 7 | 91 | 79 | 84 | .138 | 0 | 85.2 | Pt.Cldy |
| 8 | 88 | 77 | 81 | .157 | .01 | 85.2 | Pt.Cldy |
| 9 | 85 | 77 | 80 | .079 | .02 | 84.7 | Cloudy |
| 10 | 81 | 74 | 76 | .098 | .20 | 84.3 | Cloudy |
| 11 | 87 | 72 | 79 | .059 | 0 | 85.0 | Pt.Cldy |
| 12 | 92 | 73 | 81 | .099 | 0 | 85.4 | Clear |
| 13 | 91 | 78 | 82 | .118 | 1.11 | 85.3 | Cloudy |
| 14 | 89 | 76 | 80 | .098 | 1.61 | 84.7 | Cloudy |
| 15 | 88 | 74 | 80 | .060 | T | 84.6 | Pt.Cldy |
| 16 | 89 | 74 | 80 | .055 | 0 | 85.7 | Pt.Cldy. |
| 17 | 88 | 75 | 80 | .119 | .01 | 85.4 | Cloudy |
| 18 | 87 | 76 | 80 | .078 | 0 | 85.0 | Pt.Cldy |
| 19 | 90 | 75 | 81 | .118 | .15 | 83.8 | Pt.Cldy |
| 20 | 85 | 74 | 79 | .099 | .33 | 83.2 | Cloudy |
| 21 | 90 | 77 | 81 | .079 | .03 | 83.5 | Cloudy |
| 22 | 92 | 77 | 80 | .098 | 1.18 | 82.9 | Cloudy |
| 23 | 86 | 76 | 79 | .098 | .02 | 82.9 | Cloudy |
| 24 | 84 | 75 | 77 | .099 | .34 | 82.5 | Cloudy |
| 25 | 84 | 74 | 78 | .079 | T | 82.2 | Cloudy |
| 26 | 88 | 74 | 80 | .099 | .42 | 82.3 | Cloudy |
| 27 | 92 | 76 | 82 | .079 | .10 | 82.9 | Pt.Cldy |
| 28 | 90 | 76 | 82 | .098 | 0 | 83.8 | Cloudy |
| 29 | 89 | 77 | 81 | .138 | .12 | 84.2 | Cloudy |
| 30 | 90 | 76 | 79 | .099 | .30 | 84.5 | Cloudy |
| 31 | | | | | | | |
| | 2661 | 2269 | — | 2.931 | 5.96 | - | |
| Jan | 88.7 | 75.6 | 80.5 | .098 | — | 84.5 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.826
Highest 29.930 Date 9
Lowest 29.730 Date 27

### TEMPERATURE
(Degrees Fahrenheit)

Bi hourly Monthly mean 80.5
Highest 94 Date 6
Lowest 72 Date 11
Greatest daily range 19 Date 12
Mean for this month for 36 years 78.8
Maximum for this month for 36 years 95
Minimum for this month for 36 years 70
Average excess ~~or deficiency~~ of this month compared with a mean of 36 years +1.7

### PRECIPITATION
(Inches)

Total for this month 5.96
Greatest amount in 24 hours 1.94 Date 13 & 14
Average for this month for 44 years 8.22
Total from January 1, 1941 to date 21.30
Average from January 1 to date 21.44
Accumulated excess or deficiency from January 1 to date compared with average -0.14

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.77 | 1917 7.35 | 1928 8.78 | 1939 12.65 |
| 1907 12.64 | 1918 5.20 | 1929 9.34 | 1940 6.03 |
| 1908 4.28 | 1919 8.93 | 1930 2.50 | 1941 5.96 |
| 1909 9.90 | 1920 4.83 | 1931 7.81 | 1942 |
| 1910 8.82 | 1921 7.86 | 1932 9.23 | 1943 |
| 1911 3.40 | 1922 7.92 | 1933 14.36 | 1944 |
| 1912 5.80 | 1923 5.39 | 1934 10.85 | 1945 |
| 1913 8.15 | 1924 8.41 | 1935 7.54 | 1946 |
| 1914 7.28 | 1925 18.34 | 1936 9.12 | 1947 |
| 1915 2.85 | 1926 12.33 | 1937 7.44 | 1948 |
| 1916 4.39 | 1927 10.83 | 1938 9.49 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 3811 miles
Average hourly velocity 5.3 miles per hour
Maximum velocity for five minutes 22 miles per hour from South on 14

### MISCELLANEOUS

Total evaporation for this month 2.931 inches
Average daily evaporation 0.098 inches
Relative humidity, bihourly mean, percent 90.1
Sunshine, percentage of possible 40
Number of days clear 1 Partly cloudy 14 Cloudy 15
Number of days with .01 inch rain or more 17

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 13, 14, 24, 26, 27, 30
Earthquakes (No. of) 14
Harbor Temp. Max. 87 Min. 80

3066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month July, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 76 | 79 | .098 | 0 | 83.4 | Cloudy |
| 2 | 90 | 75 | 79 | .098 | .12 | 83.2 | Pt. Cloudy |
| 3 | 90 | 76 | 81 | .060 | .20 | 83.3 | Pt. Cloudy |
| 4 | 91 | 77 | 82 | .059 | .24 | 84.2 | Pt. Cloudy |
| 5 | 90 | 77 | 82 | .169 | 0 | 83.8 | Pt. Cloudy |
| 6 | 90 | 76 | 80 | .122 | 0 | 83.4 | Pt. Cloudy |
| 7 | 78 | 71 | 75 | .102 | 1.60 | 81.8 | Cloudy |
| 8 | 89 | 72 | 80 | .048 | 0 | 81.9 | Pt. Cloudy |
| 9 | 86 | 75 | 78 | .074 | .06 | 82.4 | Cloudy |
| 10 | 88 | 74 | 78 | .071 | .02 | 83.0 | Cloudy |
| 11 | 81 | 73 | 76 | .071 | .35 | 82.5 | Cloudy |
| 12 | 87 | 72 | 79 | .047 | 0 | 82.2 | Pt. Cloudy |
| 13 | 85 | 75 | 78 | .040 | .39 | 82.8 | Cloudy |
| 14 | 84 | 74 | 77 | .090 | .19 | 82.6 | Cloudy |
| 15 | 87 | 74 | 79 | .071 | T | 82.7 | Pt. Cloudy |
| 16 | 89 | 74 | 81 | .071 | 0 | 83.8 | Pt. Cloudy |
| 17 | 86 | 75 | 79 | .118 | .03 | 83.7 | Cloudy |
| 18 | 85 | 75 | 78 | .071 | .16 | 83.1 | Cloudy |
| 19 | 81 | 73 | 76 | .079 | .66 | 82.4 | Cloudy |
| 20 | 87 | 73 | 79 | .039 | 0 | 82.7 | Pt. Cloudy |
| 21 | 89 | 75 | 80 | .095 | 0 | 83.5 | Pt. Cloudy |
| 22 | 91 | 75 | 80 | .094 | .47 | 83.1 | Pt. Cloudy |
| 23 | 86 | 75 | 78 | .142 | .02 | 82.7 | Cloudy |
| 24 | 87 | 75 | 80 | .075 | T | 83.6 | Pt. Cloudy |
| 25 | 90 | 75 | 79 | .082 | 1.09 | 83.4 | Cloudy |
| 26 | 86 | 75 | 80 | .067 | T | 83.4 | Cloudy |
| 27 | 89 | 75 | 79 | .067 | .30 | 83.4 | Pt. Cloudy |
| 28 | 90 | 75 | 81 | .114 | .12 | 83.3 | Pt. Cloudy |
| 29 | 87 | 75 | 79 | .047 | .02 | 83.2 | Cloudy |
| 30 | 88 | 76 | 80 | .075 | .01 | 83.5 | Pt. Cloudy |
| 31 | 90 | 76 | 81 | .095 | 0 | 83.9 | Pt. Cloudy |
| Total | 2703 | 2314 | - | 2.551 | 6.05 | - | |
| Mean | 87.2 | 74.6 | 79.1 | 0.082 | - | 83.1 | |

**ATMOSPHERIC PRESSURE**
(Inches, reduced to sea level)

Bihourly mean 29.831
Highest 29.940 Date 7
Lowest 29.690 Date 5

**TEMPERATURE**
(Degrees Fahrenheit)

Bi-Hourly
Monthly mean 82.1
Highest 91 Date 4
Lowest 71 Date 7
Greatest daily range 17 Date 8
Mean for this month for 36 years 78.9
Maximum for this month for 36 years 85
Minimum for this month for 36 years 71
Average excess or deficiency of this month compared with a mean of years +0.2

**PRECIPITATION**
(Inches)

Total for this month 1.60
Greatest amount in 24 hours .45 Date 7
Average for this month for 41 years 27.35
Total from January 1, 19.... to date 28.62
Average from January 1 to date 18.18
Accumulated excess or deficiency from January 1 to date compared with average 3.27

Total precipitation in the 10.17 in:

| | | | |
|---|---|---|---|
| 1906 4.28 | 1917 5.13 | 1928 5.22 | 1939 6.23 |
| 1907 6.83 | 1918 4.75 | 1929 4.04 | 1940 6.05 |
| 1908 9.01 | 1919 6.18 | 1930 10.18 | 1941 |
| 1909 9.26 | 1920 8.07 | 1931 6.29 | 1942 |
| 1910 5.78 | 1921 5.08 | 1932 6.01 | 1943 |
| 1911 10.23 | 1922 5.15 | 1933 5.39 | 1944 |
| 1912 4.85 | 1923 5.97 | 1934 13.16 | 1945 |
| 1913 4.32 | 1924 3.83 | 1935 5.94 | 1946 |
| 1914 6.93 | 1925 9.93 | 1936 6.27 | 1947 |
| 1915 10.13 | 1926 8.22 | 1937 7.52 | 1948 |
| 1916 | 1927 | 1938 | 1949 |

Prevailing direction Northwest
Total movement 4338 miles
Average hourly velocity 5.8 (true) miles per hour
Maximum velocity for 24 minutes 22 miles per hour from ..... on .....

**MISCELLANEOUS**

Total evaporation for this month 2.551 inches
Average daily evaporation 0.082 inches
Relative humidity, bihourly mean, percent 89.2
Sunshine, percentage of possible 39
Number of days clear 17 Partly cloudy 14 Cloudy 0
Number of days with .01 inch rain or more 19

**DATES**

Fogs, light 0
Fogs, dense 0
Halos, lunar 2-6-7-10-11-18-19-22-29
Thunderstorms (Number of) 15
Balboa Harbor Water Temp. Max. 86 Min. 80

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS ; Month AUGUST, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 76 | 81 | .098 | 1.05 | 83.9 | Pt.cldy. |
| 2 | 84 | 76 | 79 | .150 | 0 | 82.8 | Cloudy |
| 3 | 87 | 75 | 80 | .086 | 0 | 82.8 | Pt.cldy. |
| 4 | 90 | 75 | 81 | .111 | 0 | 83.1 | Pt.cldy. |
| 5 | 87 | 77 | 79 | .094 | .20 | 83.2 | Cloudy |
| 6 | 87 | 75 | 80 | .055 | 0 | 83.0 | Pt.cldy. |
| 7 | 87 | 73 | 78 | .103 | .37 | 82.8 | Cloudy |
| 8 | 91 | 75 | 80 | .102 | 2.30 | 82.6 | Pt.cldy. |
| 9 | 90 | 75 | 82 | .094 | .24 | 83.3 | Pt.cldy. |
| 10 | 90 | 77 | 81 | .111 | .03 | 83.6 | Pt.cldy. |
| 11 | 89 | 75 | 81 | .118 | .01 | 83.4 | Cloudy |
| 12 | 82 | 76 | 78 | .079 | .52 | 82.9 | Cloudy |
| 13 | 83 | 74 | 77 | .059 | .07 | 81.9 | Cloudy |
| 14 | 86 | 73 | 77 | .039 | .05 | 82.2 | Cloudy |
| 15 | 87 | 73 | 78 | .059 | 3.74 | 81.2 | Cloudy |
| 16 | 84 | 74 | 77 | .079 | .0 | 80.1 | Cloudy |
| 17 | 89 | 74 | 80 | .059 | .01 | 82.4 | Pt.cldy. |
| 18 | 89 | 75 | 80 | .098 | .0 | 82.8 | Pt.cldy. |
| 19 | 89 | 75 | 80 | .118 | .0 | 82.9 | Pt.cldy. |
| 20 | 90 | 75 | 79 | .091 | .16 | 82.2 | Pt.cldy. |
| 21 | 87 | 75 | 80 | .106 | .37 | 83.1 | Pt.cldy. |
| 22 | 87 | 75 | 80 | .079 | .40 | 82.9 | Pt.cldy. |
| 23 | 85 | 73 | 78 | .118 | .21 | 82.5 | Cloudy |
| 24 | 90 | 71 | 81 | .075 | .0 | 83.2 | Pt.cldy. |
| 25 | 91 | 74 | 81 | .106 | .31 | 83.5 | Pt.cldy. |
| 26 | 87 | 76 | 81 | .091 | .86 | 83.4 | Cloudy |
| 27 | 80 | 74 | 76 | .079 | .56 | 82.5 | Cloudy |
| 28 | 81 | 73 | 77 | .062 | .02 | 82.1 | Cloudy |
| 29 | 86 | 72 | 77 | .060 | .04 | 82.2 | Cloudy |
| 30 | 87 | 74 | 79 | .039 | .0 | 81.8 | Cloudy |
| 31 | 83 | 73 | 78 | .105 | .13 | 81.8 | Pt.cldy. |
| | 2697 | 2308 | - | 2723 | 11.65 | - | |
| Mean | 87.0 | 74.5 | 80.8 | .088 | - | 82.7 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.825
Highest 29.940 Date 23
Lowest 29.720 Date 4

### TEMPERATURE
(Degrees Fahrenheit)

Bi-hourly
Monthly mean 79.3
Highest 92 Date 1
Lowest 71 Date 24
Greatest daily range 19 Date 24
Mean for this month for 36 years 78.7
Maximum for this month for 36 years 94
Minimum for this month for 36 years 68
Average excess or deficiency of this month compared with a mean of 36 years +0.6

### PRECIPITATION
(Inches)

Total for this month 11.65
Greatest amount in 24 hours 3.75 Date 14-15
Average for this month for 45 years 7.79
Total from January 1, 1941 to date 39.00
Average from January 1 to date 36.41
Accumulated excess or deficiency from January 1 to date compared with average +2.59

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.44 | 1917 7.42 | 1928 6.87 | 1939 5.12 |
| 1907 7.46 | 1918 3.84 | 1929 11.96 | 1940 6.59 |
| 1908 11.48 | 1919 5.82 | 1930 4.34 | 1941 11.65 |
| 1909 6.84 | 1920 12.22 | 1931 4.00 | 1942 |
| 1910 12.09 | 1921 9.51 | 1932 7.61 | 1943 |
| 1911 7.21 | 1922 1.46 | 1933 6.55 | 1944 |
| 1912 6.33 | 1923 5.37 | 1934 4.22 | 1945 |
| 1913 8.20 | 1924 14.46 | 1935 11.41 | 1946 |
| 1914 6.09 | 1925 10.83 | 1936 6.14 | 1947 |
| 1915 15.24 | 1926 10.45 | 1937 3.80 | 1948 |
| 1916 10.53 | 1927 7.76 | 1938 11.82 | 1949 |

### WIND

Prevailing direction North-west
Total movement 4277 miles
Average hourly velocity 5.7 miles per hour
Maximum velocity for five minutes (True) 19 miles per hour from NW on 10

### MISCELLANEOUS

Total evaporation for this month 2.723 inches
Average daily evaporation .088 inches
Relative humidity, bihourly mean, percent 84.9
Sunshine, percentage of possible 36
Number of days clear 0 Partly cloudy 16 Cloudy 15
Number of days with .01 inch rain or more 22

### DATES

Fogs, light 1
Fogs, dense 0
Halos, lunar 0
Thunderstorms 1-5-6-10-15-20-25-26-27
Earthquakes (Number of) 11
Balboa Harbor Water Temp. Max. 86 Min. 78

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month September, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-hr. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 72 | 80 | .071 | .57 | 82.2 | Pt.Cldy. |
| 2 | 88 | 75 | 80 | .122 | 0 | 82.1 | Pt.Cldy. |
| 3 | 82 | 73 | 78 | .081 | .03 | 81.5 | Cldy. |
| 4 | 86 | 74 | 80 | .067 | 0 | 81.3 | Pt.Cldy. |
| 5 | 87 | 72 | 78 | .070 | 2.79 | 79.4 | Pt.Cldy. |
| 6 | 90 | 75 | 79 | .052 | .59 | 80.2 | Cldy. |
| 7 | 85 | 74 | 79 | .059 | .52 | 82.4 | Pt.Cldy. |
| 8 | 90 | 73 | 79 | .067 | .48 | 82.8 | Cldy. |
| 9 | 87 | 74 | 79 | .074 | T | 83.6 | Cldy. |
| 10 | 83 | 74 | 78 | .075 | T | 82.5 | Pt.Cldy. |
| 11 | 86 | 73 | 79 | .070 | .06 | 82.8 | Pt.Cldy. |
| 12 | 88 | 74 | 80 | .063 | .07 | 83.9 | Pt.Cldy. |
| 13 | 87 | 73 | 77 | .086 | .05 | 83.5 | Cldy. |
| 14 | 84 | 72 | 77 | .107 | .01 | 82.6 | Pt.Cldy. |
| 15 | 88 | 72 | 79 | .090 | 0 | 82.5 | Cldy. |
| 16 | 87 | 75 | 80 | .107 | 0 | 84.9 | Pt.Cldy. |
| 17 | 87 | 74 | 78 | .059 | T | 84.8 | Cldy. |
| 18 | 89 | 71 | 79 | .114 | 0 | 84.7 | Pt.Cldy. |
| 19 | 90 | 74 | 80 | .102 | .03 | 84.8 | Pt.Cldy. |
| 20 | 85 | 74 | 78 | .133 | .02 | 84.1 | Cldy. |
| 21 | 82 | 73 | 77 | .119 | .74 | 82.8 | Cldy. |
| 22 | 87 | 73 | 79 | .067 | .01 | 83.2 | Pt.Cldy. |
| 23 | 90 | 74 | 79 | .086 | .89 | 84.7 | Pt.Cldy. |
| 24 | 85 | 73 | 78 | .087 | .01 | 84.4 | Cldy. |
| 25 | 87 | 73 | 79 | .098 | 0 | 84.4 | Pt.Cldy. |
| 26 | 87 | 74 | 79 | .081 | .21 | 84.5 | Pt.Cldy. |
| 27 | 86 | 73 | 78 | .075 | .02 | 84.2 | Cldy. |
| 28 | 88 | 75 | 80 | .106 | 0 | 84.8 | Pt.Cldy. |
| 29 | 90 | 75 | 81 | .086 | T | 85.6 | Pt.Cldy. |
| 30 | 92 | 76 | 82 | .071 | .01 | 85.6 | Cldy. |
| 31 | | | | | | | |
| Total | 2610 | 2207 | - | 2.565 | 8.01 | - | |
| Mean | 87.0 | 73.6 | 78.9 | 0.855 | - | 83.4 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.809
Highest 29.91 Date 13
Lowest 29.70 Date 19

### TEMPERATURE
(Degrees Fahrenheit)

Bi-hourly
Monthly mean 78.9
Highest 92 Date 30
Lowest 71 Date 18
Greatest daily range 18 Date 18
Mean for this month for 36 years 78.5
Maximum for this month for 36 years 96
Minimum for this month for 36 years 68
Average excess [redacted] of this month compared with a mean of 36 years +0.4

### PRECIPITATION
(Inches)

Total for this month 8.01
Greatest amount in 24 hours 2.79 Date 5th
Average for this month for 45 years 8.29
Total from January 1, 1941 to date 47.01
Average from January 1 to date 44.70
Accumulated excess [redacted] from January 1 to date compared with average + 2.31

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.83 | 1917 11.53 | 1928 10.44 | 1939 8.12 |
| 1907 11.14 | 1918 7.03 | 1929 9.26 | 1940 13.99 |
| 1908 5.93 | 1919 10.84 | 1930 7.61 | 1941 8.01 |
| 1909 5.86 | 1920 9.14 | 1931 11.09 | 1942 |
| 1910 4.84 | 1921 3.27 | 1932 7.23 | 1943 |
| 1911 6.03 | 1922 8.18 | 1933 5.18 | 1944 |
| 1912 8.38 | 1923 4.60 | 1934 16.38 | 1945 |
| 1913 11.43 | 1924 12.55 | 1935 4.70 | 1946 |
| 1914 9.60 | 1925 9.01 | 1936 8.62 | 1947 |
| 1915 3.89 | 1926 8.41 | 1937 10.87 | 1948 |
| 1916 8.02 | 1927 6.53 | 1938 6.23 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 3676 miles
Average hourly velocity 5.1 (True) miles per hour
Maximum velocity for five minutes 23 miles per hour from S on 20th

### MISCELLANEOUS

Total evaporation for this month 2.565 inches
Average daily evaporation 0.855 inches
Relative humidity, bihourly mean, percent 88.6
Sunshine, percentage of possible 46
Number of days clear 0 Partly cloudy 18 Cloudy 12
Number of days with .01 inch rain or more 19

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 5-9-17-30
Earthquakes (No. of) 5

Balboa Harbor Water Temp. Max: 86°
Min: 78°

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month October, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 76 | 79 | .138 | .41 | 85.2 | Cloudy |
| 2 | 84 | 73 | 79 | .077 | .47 | 84.2 | Cloudy |
| 3 | 87 | 74 | 80 | .118 | .15 | 84.8 | Pt. Cldy. |
| 4 | 87 | 74 | 80 | .084 | 0 | 85.2 | Cloudy |
| 5 | 85 | 74 | 80 | .111 | .13 | 85.0 | Pt. Cldy. |
| 6 | 82 | 73 | 79 | .071 | .04 | 84.1 | Cloudy |
| 7 | 88 | 73 | 78 | .051 | .19 | 83.8 | Cloudy |
| 8 | 85 | 74 | 78 | .102 | .04 | 83.4 | Cloudy |
| 9 | 90 | 73 | 80 | .099 | .04 | 84.1 | Pt. Cldy. |
| 10 | 89 | 74 | 78 | .122 | .88 | 84.7 | Cloudy |
| 11 | 87 | 74 | 79 | .096 | .29 | 83.8 | Cloudy |
| 12 | 87 | 75 | 80 | .070 | .02 | 82.7 | Cloudy |
| 13 | 85 | 73 | 78 | .150 | 1.61 | 81.5 | Cloudy |
| 14 | 79 | 74 | 76 | .071 | 1.28 | 80.0 | Cloudy |
| 15 | 88 | 73 | 78 | .039 | .12 | 80.6 | Pt. Cldy. |
| 16 | 88 | 73 | 79 | .071 | .08 | 81.1 | Pt. Cldy. |
| 17 | 90 | 73 | 79 | .094 | .20 | 81.8 | Cloudy |
| 18 | 90 | 75 | 82 | .083 | 0 | 82.3 | Pt. Cldy. |
| 19 | 90 | 76 | 80 | .142 | .15 | 83.5 | Cloudy |
| 20 | 87 | 76 | 80 | .098 | .01 | 83.2 | Cloudy |
| 21 | 90 | 75 | 81 | .075 | T | 83.4 | Pt. Cldy. |
| 22 | 93 | 76 | 80 | .098 | .19 | 84.1 | Pt. Cldy. |
| 23 | 87 | 77 | 80 | .064 | 0 | 83.4 | Cloudy |
| 24 | 88 | 76 | 80 | .098 | .45 | 83.8 | Pt. Cldy. |
| 25 | 90 | 74 | 80 | .118 | 0 | 83.8 | Cloudy |
| 26 | 85 | 73 | 76 | .118 | 2.35 | 82.7 | Cloudy |
| 27 | 86 | 72 | 77 | .130 | .02 | 82.2 | Cloudy |
| 28 | 88 | 74 | 79 | .051 | .02 | 82.5 | Cloudy |
| 29 | 85 | 73 | 78 | .075 | .80 | 82.8 | Cloudy |
| 30 | 86 | 72 | 78 | .087 | 1.46 | 82.1 | Cloudy |
| 31 | 85 | 73 | 77 | .086 | .52 | 82.5 | Pt. Cldy. |
| Total | 2700 | 2388 | | 2.877 | 12.74 | - | |
| Mean | 87.1 | 76.8 | | 0.093 | - | 83.1 | |

**ATMOSPHERIC PRESSURE**
(Inches, reduced to sea level)

Bihourly mean 29.820
Highest 29.960 Date 30
Lowest 29.700 Date 15

**TEMPERATURE**
(Degrees Fahrenheit)

Monthly mean 79.0
Highest 93 Date 22
Lowest 72 Date 27 & 30
Greatest daily range 17 Date 7
Mean for this month for 36 years 77.9
Maximum for this month for 36 years 83
Minimum for this month for 36 years 72
Average excess [redacted] of this month compared with a mean of 36 years +1.1

**PRECIPITATION**
(Inches)

Total for this month 12.74
Greatest amount in 24 hours 2.39 Date 13-14
Average for this month for 45 years 16.16
Total from January 1, 1941 to date 59.75
Average from January 1 to date [illegible]
Accumulated excess [redacted] from January 1 to date compared with average +4.89

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 [illegible] | 1917 [illegible] | 1928 10.78 | 1939 12.93 |
| 1907 [illegible] | 1918 [illegible] | 1929 7.89 | 1940 [illegible] |
| 1908 [illegible] | 1919 12.11 | 1930 [illegible] | 1941 12.74 |
| 1909 [illegible] | 1920 [illegible] | 1931 [illegible] | 1942 |
| 1910 [illegible] | 1921 13.86 | 1932 11.60 | 1943 |
| 1911 [illegible] | 1922 [illegible] | 1933 [illegible] | 1944 |
| 1912 [illegible] | 1923 [illegible] | 1934 [illegible] | 1945 |
| 1913 [illegible] | 1924 10.50 | 1935 [illegible] | 1946 |
| 1914 [illegible] | 1925 7.37 | 1936 [illegible] | 1947 |
| 1915 [illegible] | 1926 [illegible] | 1937 [illegible] | 1948 |
| 1916 10.17 | 1927 [illegible] | 1938 12.72 | 1949 |

**WIND**

Prevailing direction Northwest
Total movement 39.86 miles
Average hourly velocity [illegible] miles per hour
Maximum velocity for five minutes (True) 21 miles per hour from [illegible] on 7

**MISCELLANEOUS**

Total evaporation for this month 2.877 inches
Average daily evaporation 0.093 inches
Relative humidity, bihourly mean, percent [illegible]
Sunshine, percentage of possible [illegible]
Number of days clear 0 Partly cloudy 10 Cloudy [illegible]
Number of days with .01 inch rain or more [illegible]

**DATES**

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms (Dates, 1941) 4
Earthquakes (Dates, 1941) 3
Water Temp. [illegible] 77°

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

4066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month November, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 82 | 73 | 76 | .044 | .15 | 81.7 | Cloudy |
| 2 | 86 | 72 | 79 | .098 | 0 | 82.8 | Pt.cldy. |
| 3 | 86 | 72 | 78 | .059 | 0 | 84.5 | Pt.cldy. |
| 4 | 89 | 71 | 79 | .150 | 0 | 84.3 | Pt.cldy. |
| 5 | 89 | 72 | 79 | .106 | 0 | 84.0 | Pt.cldy. |
| 6 | 87 | 73 | 79 | .153 | 0 | 83.6 | Pt.cldy. |
| 7 | 86 | 72 | 78 | .122 | .08 | 82.6 | Cloudy |
| 8 | 88 | 75 | 79 | .115 | .44 | 82.0 | Cloudy |
| 9 | 87 | 74 | 78 | .078 | 0 | 82.6 | Pt.cldy. |
| 10 | 88 | 74 | 79 | .091 | 0 | 82.5 | Pt.cldy. |
| 11 | 86 | 73 | 77 | .098 | .02 | 82.8 | Pt.cldy. |
| 12 | 87 | 71 | 78 | .111 | 0 | 83.5 | Pt.cldy. |
| 13 | 87 | 72 | 78 | .102 | .24 | 83.0 | Pt.cldy. |
| 14 | 87 | 74 | 78 | .090 | .40 | 82.4 | Pt.cldy. |
| 15 | 85 | 74 | 78 | .091 | 0 | 82.1 | Cloudy |
| 16 | 87 | 73 | 79 | .094 | .39 | 82.2 | Pt.cldy. |
| 17 | 88 | 74 | 79 | .079 | .19 | 82.6 | Cloudy |
| 18 | 88 | 74 | 80 | .071 | .57 | 82.0 | Cloudy |
| 19 | 90 | 75 | 81 | .055 | 0 | 82.5 | Pt.cldy. |
| 20 | 86 | 74 | 78 | .095 | .26 | 82.4 | Pt.cldy. |
| 21 | 87 | 73 | 78 | .106 | .73 | 82.2 | Cloudy |
| 22 | 86 | 73 | 79 | .091 | .37 | 82.3 | Cloudy |
| 23 | 90 | 73 | 81 | .055 | 0 | 82.9 | Pt.cldy. |
| 24 | 89 | 75 | 81 | .138 | .26 | 82.7 | Pt.cldy. |
| 25 | 89 | 75 | 78 | .118 | 1.03 | 82.0 | Cloudy |
| 26 | 86 | 75 | 79 | .075 | .35 | 81.6 | Cloudy |
| 27 | 84 | 74 | 77 | .071 | 1.61 | 80.8 | Cloudy |
| 28 | 84 | 74 | 78 | .070 | T | 80.4 | Cloudy |
| 29 | 86 | 74 | 78 | .095 | .44 | 80.7 | Cloudy |
| 30 | 87 | 74 | 79 | .063 | 0 | 81.1 | Pt.cldy. |
| 31 | - | - | - | - | - | - | - |
| Total | 2607 | 2202 | - | 2.784 | 7.53 | - | |
| Mean | 86.9 | 73.4 | 78.7 | 0.093 | - | 82.4 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.808
Highest 29.970 Date 3
Lowest 29.670 Date 22

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 78.7
Highest 90 Date 19-23
Lowest 71 Date 4
Greatest daily range 18 Date 4
Mean for this month for 36 years 77.6
Maximum for this month for 36 years 84
Minimum for this month for 36 years 67
Average excess ~~or deficiency~~ of this month compared with a mean of 36 years +1.1

### PRECIPITATION
(Inches)

Total for this month 7.53
Greatest amount in 24 hours 1.61 Date 27
Average for this month for 45 years 10.30
Total from January 1, 19 41 to date 67.28
Average from January 1 to date 65.16
Accumulated excess ~~or deficiency~~ from January 1 to date compared with average +2.12

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 13.57 | 1917 13.77 | 1928 20.51 | 1939 6.55 |
| 1907 10.51 | 1918 9.61 | 1929 12.62 | 1940 5.35 |
| 1908 9.12 | 1919 4.97 | 1930 5.12 | 1941 7.53 |
| 1909 15.14 | 1920 19.22 | 1931 12.60 | 1942 |
| 1910 4.29 | 1921 7.11 | 1932 10.18 | 1943 |
| 1911 7.57 | 1922 8.44 | 1933 13.28 | 1944 |
| 1912 6.38 | 1923 8.81 | 1934 12.89 | 1945 |
| 1913 10.63 | 1924 12.03 | 1935 19.70 | 1946 |
| 1914 10.35 | 1925 3.52 | 1936 8.29 | 1947 |
| 1915 7.05 | 1926 9.63 | 1937 10.18 | 1948 |
| 1916 8.77 | 1927 5.82 | 1938 11.23 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 3957 miles
Average hourly velocity 5.5 miles per hour
Maximum velocity for five minutes (True) 23 miles per hour from W on 25

### MISCELLANEOUS

Total evaporation for this month 2.784 inches
Average daily evaporation 0.093 inches
Relative humidity, bihourly mean, percent 88.2
Sunshine, percentage of possible 36
Number of days clear 0 Partly cloudy 17 Cloudy 3
Number of days with .01 inch rain or more 17

### DATES

Fogs, light 12th
Fogs, dense None
Halos, lunar None
Thunderstorms 8-10-14-16-24-25-27-30
Earthquakes (Number of) 22
Balboa Harbor Water Temp. Max: 87 Min: 79

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month December, 1941

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 74 | 76 | .079 | 1.43 | 81.2 | Cloudy |
| 2 | 87 | 72 | 78 | .090 | .17 | 81.7 | Pt.Cldy. |
| 3 | 86 | 75 | 79 | .110 | 0 | 81.8 | Pt.Cldy. |
| 4 | 89 | 72 | 79 | .103 | 0 | 82.2 | Pt.Cldy. |
| 5 | 88 | 73 | 79 | .122 | .04 | 82.2 | Pt.Cldy. |
| 6 | 91 | 74 | 80 | .098 | .13 | 82.2 | Pt.Cldy. |
| 7 | 88 | 74 | 80 | .099 | .27 | 82.3 | Pt.Cldy. |
| 8 | 91 | 73 | 81 | .098 | 0 | 82.3 | Pt.Cldy. |
| 9 | 91 | 74 | 82 | .169 | T | 82.9 | Pt.Cldy. |
| 10 | 87 | 75 | 81 | .118 | 0 | 82.9 | Cloudy |
| 11 | 90 | 75 | 81 | .091 | .01 | 83.1 | Pt.Cldy. |
| 12 | 88 | 74 | 80 | .114 | 0 | 82.7 | Pt.Cldy. |
| 13 | 82 | 74 | 77 | .146 | .76 | 81.8 | Cloudy |
| 14 | 81 | 74 | 77 | .043 | .18 | 82.0 | Cloudy |
| 15 | 84 | 72 | 75 | .083 | 2.09 | 80.5 | Cloudy |
| 16 | 88 | 72 | 78 | .043 | 0 | 81.2 | Pt.Cldy. |
| 17 | 88 | 73 | 79 | .087 | .05 | 82.0 | Pt.Cldy. |
| 18 | 90 | 74 | 79 | .102 | .22 | 82.2 | Pt.Cldy. |
| 19 | 89 | 73 | 80 | .098 | .03 | 82.1 | Pt.Cldy. |
| 20 | 88 | 73 | 79 | .123 | 0 | 82.4 | Pt.Cldy. |
| 21 | 87 | 74 | 80 | .185 | .02 | 82.4 | Pt.Cldy. |
| 22 | 90 | 74 | 81 | .102 | 0 | 82.2 | Pt.Cldy. |
| 23 | 90 | 73 | 80 | .173 | 0 | 82.7 | Pt.Cldy. |
| 24 | 88 | 72 | 80 | .185 | 0 | 82.9 | Pt.Cldy. |
| 25 | 88 | 72 | 79 | .158 | 0 | 82.6 | Pt.Cldy. |
| 26 | 90 | 73 | 80 | .208 | T | 82.2 | Pt.Cldy. |
| 27 | 88 | 72 | 80 | .189 | 0 | 82.3 | Clear |
| 28 | 88 | 72 | 79 | .233 | 0 | 82.1 | Clear |
| 29 | 90 | 72 | 80 | .220 | 0 | 82.3 | Clear |
| 30 | 90 | 72 | 80 | .197 | 0 | 82.6 | Pt.Cldy. |
| 31 | 90 | 72 | 80 | .197 | 0 | 82.2 | Pt.Cldy. |
| Sum | 2729 | 2268 | — | 4.063 | 5.40 | — | |
| Mean | 88.0 | 73.2 | 79.3 | 0.131 | — | 82.2 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.809
Highest 29.940 Date 3
Lowest 29.690 Date 24

### TEMPERATURE
(Degrees Fahrenheit)

Bi-hourly Monthly mean 79.3
Highest 91 Date 6
Lowest 72 Date 16-31
Greatest daily range 18 Date 31
Mean for this month for 36 years 78.3
Maximum for this month for 36 years 94
Minimum for this month for 36 years 66
Average excess or deficiency of this month compared with a mean of 36 years +1.0

### PRECIPITATION
(Inches)

Total for this month 5.40
Greatest amount in 24 hours 2.21 Date 14-15
Average for this month for 45 years 4.58
Total from January 1, 1941 to date 72.68
Average from January 1 to date 69.74
Accumulated excess deficiency from January 1 to date compared with average +2.94

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 5.52 | 1917 4.09 | 1928 6.95 | 1939 6.23 |
| 1907 3.46 | 1918 0.55 | 1929 4.17 | 1940 0.20 |
| 1908 4.16 | 1919 1.81 | 1930 2.46 | 1941 5.40 |
| 1909 12.39 | 1920 1.94 | 1931 4.96 | 1942 |
| 1910 10.63 | 1921 5.19 | 1932 2.66 | 1943 |
| 1911 1.99 | 1922 2.82 | 1933 7.32 | 1944 |
| 1912 3.27 | 1923 5.94 | 1934 2.71 | 1945 |
| 1913 4.84 | 1924 8.31 | 1935 4.31 | 1946 |
| 1914 8.28 | 1925 1.88 | 1936 1.86 | 1947 |
| 1915 3.60 | 1926 8.38 | 1937 16.81 | 1948 |
| 1916 5.86 | 1927 2.95 | 1938 7.91 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 4648 miles
Average hourly velocity 6.2 miles per hour
Maximum velocity for five minutes 22 (true) miles per hour from North on 20th

### MISCELLANEOUS

Total evaporation for this month 4.063 inches
Average daily evaporation 0.131 inches
Relative humidity, bihourly mean, percent 83.6
Sunshine, percentage of possible 57
Number of days clear 3 Partly cloudy 23 Cloudy 5
Number of days with .01 inch rain or more 13

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 15th
Earthquakes (No. of) 119
Balboa Harbor Water Temp: Max 84 Min 78

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month January, 1942

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| | | | 81.5 | | | | |
| 1 | 89 | 73 | 80 | .173 | 0 | 82.1 | Pt.Cldy. |
| 2 | 92 | 72 | 80 | .158 | T | 81.2 | Pt.Cldy. |
| 3 | 90 | 73 | 80 | .205 | .22 | 81.5 | Clear |
| 4 | 90 | 73 | 80 | .161 | 0 | 81.5 | Clear |
| 5 | 90 | 73 | 80 | .177 | T | 81.8 | Pt.Cldy. |
| 6 | 89 | 72 | 79 | .201 | 0 | 81.6 | Clear |
| 7 | 90 | 70 | 79 | .220 | 0 | 81.2 | Clear |
| 8 | 90 | 71 | 79 | .213 | 0 | 81.0 | Clear |
| 9 | 91 | 71 | 80 | .209 | 0 | 81.4 | Clear |
| 10 | 90 | 72 | 80 | .216 | 0 | 81.8 | Clear |
| 11 | 91 | 73 | 80 | .228 | 0 | 81.6 | Clear |
| 12 | 89 | 72 | 80 | .245 | T | 81.3 | Clear |
| 13 | 90 | 72 | 80 | .311 | 0 | 80.6 | Clear |
| 14 | 91 | 73 | 81 | .240 | 0 | 80.5 | Clear |
| 15 | 90 | 74 | 81 | .256 | 0 | 79.7 | Clear |
| 16 | 92 | 73 | 81 | .248 | 0 | 78.9 | Clear |
| 17 | 93 | 73 | 81 | .240 | T | 78.2 | Clear |
| 18 | 91 | 73 | 81 | .193 | 0 | 77.2 | Pt.Cldy. |
| 19 | 91 | 74 | 81 | .248 | 0 | 76.8 | Pt.Cldy. |
| 20 | 91 | 73 | 81 | .229 | 0 | 76.8 | Pt.Cldy. |
| 21 | 91 | 74 | 82 | .230 | 0 | 76.2 | Clear |
| 22 | 92 | 74 | 82 | .282 | 0 | 76.0 | Clear |
| 23 | 89 | 74 | 79 | .330 | T | 76.0 | Pt.Cldy. |
| 24 | 87 | 73 | 79 | .256 | T | 76.2 | Pt.Cldy. |
| 25 | 91 | 72 | 80 | .198 | 0 | 76.2 | Pt.Cldy. |
| 26 | 92 | 73 | 81 | .248 | 0 | 76.2 | Clear |
| 27 | 89 | 74 | 81 | .228 | 0 | 76.2 | Clear |
| 28 | 91 | 75 | 82 | .233 | 0 | 75.8 | Pt.Cldy. |
| 29 | 85 | 75 | 78 | .189 | .01 | 74.8 | Cloudy |
| 30 | 89 | 72 | 80 | .153 | .07 | 74.7 | Pt.Cldy. |
| 31 | 93 | 74 | 82 | .154 | 0 | 73.9 | Clear |
| Total | 2799 | 2260 | - | 6.812 | .30 | - | |
| Mean | 90.3 | 72.9 | 80.3 | 0.220 | - | 78.7 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.855
Highest 30.010 Date 23
Lowest 29.690 Date 31

### TEMPERATURE
(Degrees Fahrenheit)

Bi-Hourly

Monthly mean 80.3
Highest 93 Date 17 & 31
Lowest 70 Date 7
Greatest daily range 20 Date 2
Mean for this month for 37 years 78.4
Maximum for this month for 37 years 93
Minimum for this month for 37 years 63
Average excess or deficiency of this month compared with a mean of 37 years +1.9

### PRECIPITATION
(Inches)

Total for this month .30
Greatest amount in 24 hours .22 Date 3
Average for this month for 44 years 1.04
Total from January 1, 1942 to date .30
Average from January 1 to date 1.04
Accumulated excess or deficiency from January 1 to date compared with average -.74

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .43 | 1917 .13 | 1928 .02 | 1939 .43 |
| 1907 .25 | 1918 1.78 | 1929 .17 | 1940 3.14 |
| 1908 .12 | 1919 .28 | 1930 .05 | 1941 .87 |
| 1909 2.90 | 1920 T | 1931 T | 1942 .30 |
| 1910 1.22 | 1921 .88 | 1932 .98 | 1943 |
| 1911 .83 | 1922 1.73 | 1933 1.63 | 1944 |
| 1912 T | 1923 .80 | 1934 4.[illegible] | 1945 |
| 1913 .63 | 1924 T | 1935 .88 | 1946 |
| 1914 .32 | 1925 1.44 | 1936 .83 | 1947 |
| 1915 2.12 | 1926 .01 | 1937 5.07 | 1948 |
| 1916 1.41 | 1927 .18 | 1938 2.20 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 6597 miles
Average hourly velocity 8.8 miles per hour
Maximum velocity for five minutes 26 miles per hour from N on 22

### MISCELLANEOUS

Total evaporation for this month 6.812 inches
Average daily evaporation 0.220 inches
Relative humidity, bihourly mean, percent 74.8
Sunshine, percentage of possible 72
Number of days clear 19 Partly cloudy 11 Cloudy 1
Number of days with .01 inch rain or more 3

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms Number of, 15
Earthquakes

Balboa Harbor Water Temp: Max. 83 Min. 73

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month February, 1942

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 94 | 75 | 84 | .193 | 0 | 74.5 | Clear |
| 2 | 92 | 75 | 83 | .240 | T | 76.0 | Clear |
| 3 | 93 | 74 | 83 | .325 | 0 | 76.6 | Clear |
| 4 | 90 | 73 | 82 | .319 | .01 | 76.7 | Pt.Cldy |
| 5 | 91 | 73 | 82 | .255 | 0 | 77.2 | Pt.Cldy |
| 6 | 92 | 72 | 82 | .246 | 0 | 77.6 | Pt.Cldy |
| 7 | 90 | 72 | 80 | .202 | 0 | 77.9 | Pt.Cldy |
| 8 | 88 | 73 | 78 | .177 | .26 | 77.8 | Pt.Cldy |
| 9 | 92 | 72 | 82 | .245 | T | 77.8 | Pt.Cldy |
| 10 | 91 | 72 | 80 | .149 | 0 | 78.2 | Pt.Cldy |
| 11 | 92 | 72 | 80 | .170 | T | 77.9 | Pt.Cldy |
| 12 | 93 | 73 | 80 | .197 | .17 | 78.0 | Pt.Cldy |
| 13 | 94 | 72 | 80 | .228 | T | 77.6 | Pt.Cldy |
| 14 | 91 | 72 | 80 | .216 | 0 | 77.5 | Clear |
| 15 | 93 | 74 | 82 | .229 | 0 | 78.2 | Pt.Cldy |
| 16 | 92 | 75 | 82 | .280 | 0 | 79.0 | Pt.Cldy |
| 17 | 92 | 75 | 82 | .197 | 0 | 79.6 | Pt.Cldy |
| 18 | 92 | 76 | 82 | .232 | [illegible] | 79.7 | Pt.Cldy |
| 19 | 92 | 75 | 82 | .255 | 0 | 78.4 | Clear |
| 20 | 91 | 73 | 80 | .274 | 0 | 77.9 | Pt.Cldy |
| 21 | 92 | 74 | 82 | .236 | 0 | 77.8 | Pt.Cldy |
| 22 | 92 | 74 | 81 | .197 | 0 | 75.9 | Clear |
| 23 | 92 | 72 | 80 | .260 | 0 | 77.4 | Clear |
| 24 | 91 | 70 | 81 | .236 | 0 | 78.1 | Clear |
| 25 | 92 | 71 | 80 | .165 | 0 | 76.7 | Pt.Cldy |
| 26 | 95 | 73 | 82 | .260 | 0 | 75.0 | Pt.Cldy |
| 27 | 90 | 72 | 80 | .224 | T | 75.9 | Pt.Cldy |
| 28 | 91 | 72 | 81 | .197 | 0 | 75.8 | Pt.Cldy |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Total | 2564 | 2044 | - | 6.374 | 0.44 | - | |
| Mean | 91.6 | 73.0 | 80.9 | 0.228 | - | 77.4 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.752
Highest [illegible] Date 28
Lowest 29.770 Date 17

### TEMPERATURE
(Degrees Fahrenheit)

Bihourly Monthly mean 82.9
Highest 96 Date 26
Lowest 70 Date 24
Greatest daily range 22 Date 26
Mean for this month for 37 years 78.7
Maximum for this month for 37 years 95
Minimum for this month for 37 years 64
Average excess ~~or deficiency~~ of this month compared with a mean of 37 years +2.2

### PRECIPITATION
(Inches)

Total for this month 0.44
Greatest amount in 24 hours 0.26 Date 8
Average for this month for 41 years 0.62
Total from January 1, 1942 to date 0.74
Average from January 1 to date [illegible]
Accumulated ~~excess or~~ deficiency from January 1 to date compared with average -0.32

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 0.03 | 1917 0.96 | 1928 0.32 | 1939 T |
| 1907 0.04 | 1918 T | 1929 0.62 | 1940 0.11 |
| 1908 [illegible] | 1919 T | 1930 0.85 | 1941 0.53 |
| 1909 [illegible] | 1920 T | 1931 T | 1942 0.44 |
| 1910 [illegible] | 1921 0.77 | 1932 0.46 | 1943 |
| 1911 [illegible] | 1922 2.03 | 1933 0.30 | 1944 |
| 1912 0.08 | 1923 T | 1934 0.07 | 1945 |
| 1913 [illegible] | 1924 0.06 | 1935 0.36 | 1946 |
| 1914 [illegible] | 1925 0.07 | 1936 T | 1947 |
| 1915 [illegible] | 1926 0.07 | 1937 0.26 | 1948 |
| 1916 [illegible] | 1927 1.90 | 1938 0.01 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 2744 miles
Average hourly velocity 8.0 miles per hour
Maximum velocity for five minutes 29 miles per hour from North on 24

### MISCELLANEOUS

Total evaporation for this month 6.374 inches
Average daily evaporation 0.228 inches
Relative humidity, bihourly mean, percent 75.3
Sunshine, percentage of possible 63
Number of days clear 8 Partly cloudy 20 Cloudy 0
Number of days with .01 inch rain or more 3

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes (Felt) None

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month March, 1942

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-H. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 74 | 82 | .260 | 0 | 75.6 | clear |
| 2 | 94 | 75 | 82 | .205 | 0 | 76.6 | clear |
| 3 | 92 | 74 | 81 | .319 | 0 | 76.2 | clear |
| 4 | 92 | 71 | 80 | .311 | 0 | 75.7 | pt.cldy. |
| 5 | 90 | 74 | 81 | .244 | T | 76.5 | pt.cldy. |
| 6 | 92 | 75 | 81 | .173 | .01 | 75.1 | cloudy |
| 7 | 92 | 74 | 81 | .209 | 0 | 74.7 | pt.cldy. |
| 8 | 89 | 74 | 80 | .141 | 0 | 76.0 | pt.cldy. |
| 9 | 91 | 76 | 81 | .174 | .25 | 75.2 | cloudy |
| 10 | 92 | 73 | 81 | .157 | T | 74.6 | pt.cldy. |
| 11 | 90 | 72 | 79 | .221 | 0 | 74.3 | pt.cldy. |
| 12 | 88 | 72 | 79 | .169 | 0 | 73.2 | pt.cldy. |
| 13 | 89 | 74 | 80 | .142 | .01 | 73.2 | pt.cldy. |
| 14 | 90 | 74 | 80 | .157 | 0 | 73.4 | pt.clyd. |
| 15 | 91 | 73 | 81 | .114 | .25 | 73.5 | pt. cldy. |
| 16 | 90 | 75 | 81 | .170 | .11 | 74.7 | pt.cldy. |
| 17 | 95 | 75 | 83 | .114 | T | 75.7 | cloudy |
| 18 | 93 | 76 | 82 | .134 | .24 | 77.3 | pt.cldy. |
| 19 | 94 | 75 | 83 | .114 | 0 | 78.9 | pt.cldy. |
| 20 | 94 | 76 | 83 | .189 | 0 | 79.7 | pt.cldy. |
| 21 | 94 | 77 | 84 | .221 | 0 | 80.3 | pt.cldy. |
| 22 | 91 | 76 | 82 | .232 | 0 | 80.4 | pt.cldy. |
| 23 | 89 | 75 | 80 | .173 | .67 | 80.8 | pt.cldy. |
| 24 | 90 | 73 | 80 | .106 | .30 | 81.2 | cloudy |
| 25 | 89 | 74 | 80 | .134 | .01 | 81.5 | pt.cldy. |
| 26 | 91 | 74 | 80 | .138 | .07 | 81.8 | pt.cldy. |
| 27 | 94 | 73 | 82 | .098 | 0 | 81.5 | pt.cldy. |
| 28 | 92 | 74 | 82 | .185 | 0 | 81.2 | pt.cldy. |
| 29 | 89 | 75 | 81 | .248 | 0 | 81.2 | pt.cldy. |
| 30 | 91 | 76 | 82 | .229 | 0 | 81.5 | pt.cldy. |
| 31 | 90 | 77 | 82 | .170 | T | 81.7 | cloudy |
| Total | 2832 | 2306 | - | 5.651 | 1.92 | - | |
| Mean | 91.4 | 74.4 | 81.3 | 0.182 | - | 77.5 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.803
Highest 29.940 Date 4
Lowest 29.670 Date 20

### TEMPERATURE
(Degrees Fahrenheit)

Bi-hourly Monthly mean 81.3
Highest 95 Date 17
Lowest 71 Date 4
Greatest daily range 21 Date 4
Mean for this month for 37 years 79.8
Maximum for this month for 37 years 96
Minimum for this month for 37 years 65
Average excess of this month compared with a mean of 37 years +1.5

### PRECIPITATION
(Inches)

Total for this month 1.92
Greatest amount in 24 hours 0.67 Date 23
Average for this month for 0.44 years 0.72
Total from January 1, 1942 to date 2.66
Average from January 1 to date 2.38
Accumulated excess or deficiency from January 1 to date compared with average +0.28

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .05 | 1917 .02 | 1928 4.07 | 1939 T |
| 1907 T | 1918 1.25 | 1929 2.19 | 1940 .75 |
| 1908 .03 | 1919 T | 1930 .01 | 1941 .17 |
| 1909 .18 | 1920 .09 | 1931 .70 | 1942 1.92 |
| 1910 1.83 | 1921 2.98 | 1932 .13 | 1943 |
| 1911 .26 | 1922 1.02 | 1933 .46 | 1944 |
| 1912 .01 | 1923 T | 1934 .20 | 1945 |
| 1913 .43 | 1924 .07 | 1935 T | 1946 |
| 1914 T | 1925 .07 | 1936 .36 | 1947 |
| 1915 T | 1926 0 | 1937 2.44 | 1948 |
| 1916 .89 | 1927 .01 | 1938 .25 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 5950 miles
Average hourly velocity 8.0 miles per hour
Maximum velocity for five minutes 26 (true) miles per hour from North on 6

### MISCELLANEOUS

Total evaporation for this month 5.651 inches
Average daily evaporation 0.182 inches
Relative humidity, bihourly mean, percent 78.9
Sunshine, percentage of possible 32
Number of days clear 3 Partly cloudy 23 Cloudy 5
Number of days with .01 inch rain or more 10

### DATES

Fogs, light none
Fogs, dense none
Halos, lunar none
Thunderstorms none
Earthquakes 2 felt; on Mar. 2, intensity II on Mar. 12, Intensity I

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

Balboa Harbor water temp.
Max. 83 Min. 72

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# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month April, 1942

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 76 | 82 | .086 | 0 | 81.0 | Pt.Cldy. |
| 2 | 90 | 76 | 81 | .185 | .05 | 81.3 | Cloudy |
| 3 | 90 | 76 | 81 | .126 | .05 | 80.8 | Pt.Cldy. |
| 4 | 90 | 74 | 81 | .095 | 0 | 80.9 | Pt.Cldy. |
| 5 | 93 | 73 | 82 | .185 | 0 | 81.1 | Pt.Cldy. |
| 6 | 93 | 75 | 82 | .268 | 0 | 80.9 | Pt.Cldy. |
| 7 | 93 | 76 | 83 | .287 | 0 | 80.8 | Pt.Cldy. |
| 8 | 94 | 75 | 83 | .221 | 0 | 79.7 | Pt.Cldy. |
| 9 | 95 | 76 | 82 | .259 | 0 | 78.6 | Cloudy |
| 10 | 94 | 75 | 83 | .225 | 0 | 78.2 | Pt.Cldy. |
| 11 | 93 | 74 | 82 | .252 | 0 | 77.2 | Pt.Cldy. |
| 12 | 90 | 75 | 81 | .232 | 0 | 76.8 | Pt.Cldy. |
| 13 | 92 | 75 | 81 | .189 | 0 | 75.9 | Pt.Cldy. |
| 14 | 89 | 76 | 81 | .181 | .02 | 76.4 | Pt.Cldy. |
| 15 | 91 | 75 | 80 | .142 | 0 | 77.0 | Pt.Cldy. |
| 16 | 90 | 74 | 80 | .149 | 0 | 78.3 | Pt. Cldy. |
| 17 | 84 | 75 | 78 | .122 | 1.32 | 79.0 | Cloudy |
| 18 | 92 | 73 | 81 | .071 | 0 | 80.4 | Pt.Cldy. |
| 19 | 91 | 75 | 82 | .165 | 0 | 80.7 | Pt.Cldy. |
| 20 | 90 | 74 | 81 | .213 | 0 | 81.0 | Pt.Cldy. |
| 21 | 90 | 76 | 82 | .193 | .04 | 82.2 | Pt.Cldy. |
| 22 | 90 | 77 | 81 | .161 | 0 | 82.8 | Pt.Cldy. |
| 23 | 90 | 76 | 80 | .158 | .76 | 82.6 | Cloudy |
| 24 | 90 | 75 | 80 | .118 | 0 | 81.5 | Pt.Cldy. |
| 25 | 90 | 76 | 81 | .138 | 0 | 80.8 | Cloudy |
| 26 | 86 | 76 | 80 | .138 | 0 | 80.1 | Pt.Cldy. |
| 27 | 91 | 73 | 80 | .157 | T | 79.8 | Cloudy |
| 28 | 93 | 72 | 82 | .197 | 0 | 80.6 | Pt.Cldy. |
| 29 | 92 | 72 | 81 | .236 | 0 | 80.9 | Clear |
| 30 | 89 | 74 | 81 | .256 | .01 | 81.7 | Pt.Cldy. |
| 31 | - | - | - | - | - | - | - |
| Total | 2725 | 2245 | - | 5.405 | 2.25 | - | |
| Mean | 90.8 | 74.8 | 81.2 | 0.180 | - | 80.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.837
Highest 29.950 Date 12
Lowest 29.700 Date 18

### TEMPERATURE
(Degrees Fahrenheit)

Bihourly
Monthly mean 81.2
Highest 95 Date 9
Lowest 72 Date 28
Greatest daily range 21 Date 28
Mean for this month for 37 years 80.4
Maximum for this month for 37 years 97
Minimum for this month for 37 years 64
Average excess or deficiency of this month compared with a mean of 37 years +0.8

### PRECIPITATION
(Inches)

Total for this month 2.25
Greatest amount in 24 hours 1.32 Date 17
Average for this month for 42 years 2.85
Total from January 1, 1944 to date 4.91
Average from January 1 to date 5.23
Accumulated excess or deficiency from January 1 to date compared with average -0.32

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 7.76 | 1917 | 2.24 | 1928 | 3.38 | 1939 | .94 |
| 1907 | T | 1918 | 4.52 | 1929 | .43 | 1940 | 1.05 |
| 1908 | 1.37 | 1919 | 6.43 | 1930 | 6.78 | 1941 | 4.74 |
| 1909 | 2.92 | 1920 | 3.02 | 1931 | 1.45 | 1942 | 2.25 |
| 1910 | 3.71 | 1921 | 1.19 | 1932 | 7.56 | 1943 | |
| 1911 | 6.34 | 1922 | .16 | 1933 | 3.46 | 1944 | |
| 1912 | 2.68 | 1923 | .83 | 1934 | 5.09 | 1945 | |
| 1913 | .03 | 1924 | 3.72 | 1935 | 2.40 | 1946 | |
| 1914 | 4.80 | 1925 | 2.63 | 1936 | 1.64 | 1947 | |
| 1915 | 5.37 | 1926 | .08 | 1937 | 1.32 | 1948 | |
| 1916 | 2.84 | 1927 | 4.67 | 1938 | 1.93 | 1949 | |

### WIND

Prevailing direction Northwest
Total movement 5793 miles
Average hourly velocity 8.0 miles per hour
Maximum velocity for five minutes 22 miles per hour from NW on 22

### MISCELLANEOUS

Total evaporation for this month 5.405 inches
Average daily evaporation 0.180 inches
Relative humidity, bihourly mean, percent 80.4
Sunshine, percentage of possible 35
Number of days clear 1 Partly cloudy 23 Cloudy 6
Number of days with .01 inch rain or more 7

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 14 - 15 - 17
Earthquakes No Felt Quakes
Bal.Harbor Water Temp. Max. 85°
Min. 75°

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

4066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month May, 1942

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 74 | 81 | .118 | T | 82.5 | Pt.Cldy |
| 2 | 88 | 76 | 80 | .138 | .08 | 83.5 | Cloudy |
| 3 | 89 | 75 | 79 | .099 | .52 | 83.6 | Cloudy |
| 4 | 87 | 74 | 80 | .086 | 0 | 83.9 | Pt.Cldy |
| 5 | 90 | 74 | 81 | .107 | .59 | 84.1 | Pt.Cldy |
| 6 | 92 | 75 | 82 | .114 | T | 84.2 | Pt.Cldy |
| 7 | 90 | 77 | 82 | .134 | .40 | 84.2 | Pt.Cldy |
| 8 | 89 | 73 | 79 | .145 | .64 | 83.1 | Cloudy |
| 9 | 80 | 73 | 76 | .083 | 1.22 | 82.1 | Cloudy |
| 10 | 86 | 73 | 79 | .040 | .55 | 83.0 | Pt.Cldy |
| 11 | 85 | 74 | 79 | .095 | 0 | 83.6 | Pt.Cldy |
| 12 | 85 | 75 | 79 | .086 | .27 | 83.1 | Cloudy |
| 13 | 85 | 75 | 80 | .055 | .05 | 82.8 | Pt.Cldy |
| 14 | 84 | 76 | 80 | .087 | .15 | 82.8 | Cloudy |
| 15 | 85 | 76 | 80 | .063 | .01 | 83.2 | Cloudy |
| 16 | 85 | 75 | 79 | .094 | 1.42 | 83.9 | Pt.Cldy |
| 17 | 88 | 75 | 80 | .063 | 0 | 85.1 | Pt.Cldy |
| 18 | 88 | 74 | 79 | .115 | 2.66 | 84.0 | Cloudy |
| 19 | 87 | 74 | 80 | .122 | 0 | 83.8 | Cloudy |
| 20 | 91 | 75 | 81 | .063 | T | 84.4 | Cloudy |
| 21 | 88 | 77 | 80 | .086 | .04 | 84.8 | Cloudy |
| 22 | 89 | 75 | 81 | .071 | 0 | 84.5 | Pt.Cldy |
| 23 | 89 | 76 | 81 | .095 | T | 83.9 | Cloudy |
| 24 | 83 | 75 | 79 | .086 | .01 | 83.8 | Pt.Cldy |
| 25 | 89 | 76 | 81 | .087 | T | 83.9 | Pt.Cldy |
| 26 | 87 | 76 | 81 | .067 | 0 | 84.1 | Cloudy |
| 27 | 90 | 75 | 81 | .094 | T | 84.0 | Pt.Cldy |
| 28 | 91 | 77 | 81 | .079 | T | 84.1 | Cloudy |
| 29 | 89 | 74 | 79 | .067 | 2.95 | 82.8 | Cloudy |
| 30 | 85 | 73 | 79 | .083 | .45 | 82.6 | Pt.Cldy |
| 31 | 87 | 75 | 79 | .035 | .15 | 83.8 | Pt.Cldy |
| | 2710 | 2322 | — | 2.757 | 12.16 | — | |
| Mean | 87.4 | 74.9 | 79.8 | 0.089 | — | 83.6 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.819
Highest 29.910 Date 10
Lowest 29.680 Date 28

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 79.8
Highest 92 Date 6
Lowest 73 Date 10
Greatest daily range 17 Date 6
Mean for this month for 37 years 79.4
Maximum for this month for 37 years 96
Minimum for this month for 37 years 69
Average excess or deficiency of this month compared with a mean of 37 years + 0.4

### PRECIPITATION
(Inches)

Total for this month 12.16
Greatest amount in 24 hours 2.95 Date 29
Average for this month for 44 years 8.06
Total from January 1, 1942 to date 17.07
Average from January 1 to date 13.29
Accumulated excess ~~or deficiency~~ from January 1 to date compared with average + 3.78

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 10.68 | 1917 | 2.75 | 1928 | 4.20 | 1939 | 4.61 |
| 1907 | 4.44 | 1918 | 6.75 | 1929 | 4.04 | 1940 | 7.26 |
| 1908 | 7.64 | 1919 | 5.21 | 1930 | 9.70 | 1941 | 9.03 |
| 1909 | 9.10 | 1920 | 3.31 | 1931 | 13.15 | 1942 | 12.16 |
| 1910 | 9.89 | 1921 | 8.60 | 1932 | 9.39 | 1943 | |
| 1911 | 11.04 | 1922 | 9.88 | 1933 | 7.96 | 1944 | |
| 1912 | 10.71 | 1923 | 5.84 | 1934 | 4.96 | 1945 | |
| 1913 | 8.27 | 1924 | 5.51 | 1935 | 8.10 | 1946 | |
| 1914 | 6.98 | 1925 | 6.73 | 1936 | 6.36 | 1947 | |
| 1915 | 6.42 | 1926 | 4.16 | 1937 | 10.98 | 1948 | |
| 1916 | 12.59 | 1927 | 9.06 | 1938 | 12.03 | 1949 | |

### WIND

Prevailing direction Northwest
Total movement 3471 miles
Average hourly velocity 4.7 miles per hour
Maximum velocity for five minutes 23 (true) miles per hour from NW on 7

### MISCELLANEOUS

Total evaporation for this month 2.757 inches
Average daily evaporation 0.089 inches
Relative humidity, bihourly mean, percent 88.4
Sunshine, percentage of possible 36
Number of days clear 0 Partly cloudy 16 Cloudy 15
Number of days with .01 inch rain or more 18

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 3-7-8-9-14-17-21-29
Earthquakes None felt
Balboa Harbor Water Temp. Max 87 Min 81

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month June, 1942.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-H Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 76 | 81 | .079 | .52 | 84.6 | Pt. Cldy. |
| 2 | 83 | 77 | 81 | .138 | .01 | 84.6 | Cloudy |
| 3 | 89 | 76 | 79 | .067 | T | 84.8 | Cloudy |
| 4 | 86 | 75 | 78 | .082 | 1.66 | 84.0 | Cloudy |
| 5 | 86 | 74 | 79 | .055 | .27 | 84.0 | Cloudy |
| 6 | 85 | 77 | 81 | .071 | .05 | 84.9 | Pt. Cldy. |
| 7 | 85 | 76 | 80 | .094 | .10 | 85.5 | Pt. Cldy. |
| 8 | 84 | 76 | 79 | .075 | .07 | 84.8 | Cloudy |
| 9 | 86 | 76 | 81 | .059 | 0 | 84.9 | Pt. Cldy. |
| 10 | 87 | 74 | 80 | .083 | .04 | 84.8 | Cloudy |
| 11 | 87 | 74 | 80 | .094 | .01 | 83.9 | Pt. Cldy. |
| 12 | 80 | 75 | 77 | .067 | .23 | 82.9 | Cloudy |
| 13 | 88 | 74 | 80 | .087 | .31 | 82.9 | Pt. Cldy. |
| 14 | 86 | 73 | 79 | .039 | .20 | 83.2 | Pt. Cldy. |
| 15 | 84 | 75 | 79 | .154 | .01 | 82.0 | Cloudy |
| 16 | 86 | 75 | 79 | .102 | .03 | 82.3 | Pt. Cldy. |
| 17 | 86 | 74 | 80 | .083 | .08 | 82.8 | Pt. Cldy. |
| 18 | 89 | 75 | 81 | .079 | 0 | 83.2 | Pt. Cldy. |
| 19 | 84 | 74 | 79 | .098 | 1.61 | 82.7 | Cloudy |
| 20 | 87 | 74 | 80 | .063 | 0 | 82.5 | Cloudy |
| 21 | 85 | 76 | 79 | .040 | .01 | 83.1 | Cloudy |
| 22 | 88 | 74 | 79 | .082 | 0 | 83.3 | Cloudy |
| 23 | 90 | 75 | 80 | .040 | T | 83.4 | Cloudy |
| 24 | 84 | 76 | 78 | .102 | .01 | 82.7 | Cloudy |
| 25 | 89 | 75 | 81 | .071 | .01 | 82.7 | Pt. Cldy. |
| 26 | 89 | 76 | 81 | .102 | 0 | 83.3 | Pt. Cldy. |
| 27 | 88 | 77 | 80 | .091 | T | 83.3 | Cloudy |
| 28 | 88 | 75 | 79 | .086 | .35 | 82.3 | Cloudy |
| 29 | 88 | 75 | 80 | .095 | 0 | 83.0 | Cloudy |
| 30 | 86 | 76 | 80 | .071 | .01 | 83.4 | Cloudy |
| 31 | - | - | - | - | - | - | - |
| Total | 2597 | 2255 | - | 2.449 | 5.59 | - | |
| Mean | 86.6 | 75.2 | 79.7 | 0.082 | - | 83.5 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.834
Highest 29.940 Date 16
Lowest 29.700 Date 27

### TEMPERATURE
(Degrees Fahrenheit)

Bi-Hourly
Monthly mean 82.7
Highest 90 Date 23
Lowest 73 Date 14
Greatest daily range 15 Date 23
Mean for this month for 37 years 78.8
Maximum for this month for 34 years 95
Minimum for this month for 37 years 70
Average excess or deficiency of this month compared with a mean of 37 years +6.9

### PRECIPITATION
(Inches)

Total for this month 5.29
Greatest amount in 24 hours 1.71 Date 4-5
Average for this month for 42 years 8.16
Total from January 1, 1942 to date 22.66
Average from January 1 to date 21.45
Accumulated excess or deficiency from January 1 to date compared with average 1.21

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 8.79 | 1917 | 7.35 | 1928 | 8.78 | 1939 | 12.65 |
| 1907 | 4.28 | 1918 | 7.20 | 1929 | 9.54 | 1940 | 6.03 |
| 1908 | 2.90 | 1919 | 8.93 | 1930 | 2.50 | 1941 | 5.96 |
| 1909 | 8.62 | 1920 | 4.83 | 1931 | 7.51 | 1942 | 5.59 |
| 1910 | 3.40 | 1921 | 7.86 | 1932 | 9.27 | 1943 | |
| 1911 | 2.80 | 1922 | 7.92 | 1933 | 11.36 | 1944 | |
| 1912 | 8.15 | 1923 | 5.59 | 1934 | 10.85 | 1945 | |
| 1913 | 7.28 | 1924 | 8.41 | 1935 | 7.54 | 1946 | |
| 1914 | 2.35 | 1925 | 18.34 | 1936 | 9.12 | 1947 | |
| 1915 | 4.39 | 1926 | 12.33 | 1937 | 7.44 | 1948 | |
| 1916 | | 1927 | 10.83 | 1938 | 9.49 | 1949 | |

### WIND

Prevailing direction Northwest
Total movement 3650 miles
Average hourly velocity 5.1 miles per hour
Maximum velocity for five minutes 22 miles per hour from NW on 28

### MISCELLANEOUS

Total evaporation for this month 2.449 inches
Average daily evaporation 0.082 inches
Relative humidity, bihourly mean, percent 88.4
Sunshine, percentage of possible 69
Number of days clear 0 Partly cloudy 12 Cloudy 18
Number of days with .01 inch rain or more 21

### DATES

Fogs, light None
Fogs, dense 11-23
Halos, lunar None
Thunderstorms 3-4-7-8-9-11-19-20-21-25-27-29
Earthquakes None Felt.

Balboa Harbor Water Temp.: Max. 87
Min. 81

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month July, 1942.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 74 | 80 | .063 | 0 | 83.4 | Cloudy |
| 2 | 86 | 76 | 80 | .130 | T | 83.8 | Cloudy |
| 3 | 88 | 75 | 79 | .067 | .03 | 83.4 | Cloudy |
| 4 | 87 | 74 | 80 | .090 | 0 | 83.8 | Pt.cldy. |
| 5 | 90 | 74 | 81 | .048 | .29 | 83.4 | Cloudy |
| 6 | 88 | 75 | 80 | .110 | 0 | 83.6 | Pt.cldy. |
| 7 | 87 | 76 | 80 | .083 | T | 83.6 | Cloudy |
| 8 | 86 | 75 | 79 | .078 | T | 83.5 | Cloudy |
| 9 | 87 | 76 | 80 | .079 | .03 | 83.9 | Cloudy |
| 10 | 88 | 75 | 80 | .055 | .75 | 85.0 | Pt.Cldy. |
| 11 | 84 | 74 | 76 | .091 | .10 | 84.3 | Cloudy |
| 12 | 83 | 73 | 77 | .004 | T | 83.4 | Cloudy |
| 13 | 87 | 72 | 79 | .047 | 0 | 83.6 | Pt.Cldy. |
| 14 | 89 | 74 | 80 | .043 | .03 | 84.1 | Pt.Cldy. |
| 15 | 88 | 75 | 79 | .118 | .08 | 83.2 | Pt.Cldy. |
| 16 | 90 | 74 | 79 | .063 | .21 | 83.3 | Cloudy |
| 17 | 91 | 75 | 81 | .071 | .52 | 83.5 | Pt.Cldy. |
| 18 | 89 | 76 | 81 | .083 | T | 83.5 | Cloudy |
| 19 | 88 | 75 | 79 | .059 | 1.76 | 82.9 | Cloudy |
| 20 | 86 | 73 | 77 | .118 | .08 | 81.5 | Cloudy |
| 21 | 84 | 74 | 78 | .134 | .01 | 81.3 | Cloudy |
| 22 | 89 | 75 | 80 | .051 | .92 | 81.7 | Cloudy |
| 23 | 86 | 74 | 80 | .071 | .22 | 82.2 | Cloudy |
| 24 | 87 | 75 | 79 | .075 | 0 | 83.2 | Cloudy |
| 25 | 84 | 74 | 78 | .082 | 0 | 82.3 | Cloudy |
| 26 | 88 | 74 | 80 | .079 | .09 | 82.0 | Cloudy |
| 27 | 90 | 75 | 80 | .095 | .30 | 83.0 | Cloudy |
| 28 | 90 | 75 | 80 | .086 | .02 | 82.8 | Pt.Cldy. |
| 29 | 86 | 76 | 80 | .099 | .16 | 82.2 | Cloudy |
| 30 | 90 | 73 | 80 | .074 | .09 | 82.2 | Cloudy |
| 31 | 90 | 74 | 80 | .075 | .53 | 82.7 | Cloudy |
| Total | 2713 | 2310 | --- | 2.354 | 6.22 | --- | |
| Mean | 87.5 | 74.5 | 79.3 | 0.076 | --- | 83.1 | |

**ATMOSPHERIC PRESSURE**
(Inches, reduced to sea level)

Bihourly mean 29.849
Highest 29.950 Date 12
Lowest 29.740 Date 29

**TEMPERATURE**
(Degrees Fahrenheit)

Monthly mean 79.3
Highest 91 Date 17
Lowest 72 Date 13
Greatest daily range 17 Date 30
Mean for this month for 37 years 78.9
Maximum for this month for 37 years 95
Minimum for this month for 37 years 67
Average excess or deficiency of this month compared with a mean of 37 years + 0.4

**PRECIPITATION**
(Inches)

Total for this month 6.22
Greatest amount in 24 hours 1.83 Date 19-20
Average for this month for 46 years 7.16
Total from January 1, 1942 to date 28.88
Average from January 1 to date 28.61
Accumulated excess from January 1 to date compared with average + 0.27

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 8.98 | 1917 | 10.17 | 1928 | 7.91 | 1939 | 5.06 |
| 1907 | 4.28 | 1918 | 5.13 | 1929 | 5.22 | 1940 | 6.23 |
| 1908 | 6.83 | 1919 | 4.75 | 1930 | 4.04 | 1941 | 6.05 |
| 1909 | 9.01 | 1920 | 6.18 | 1931 | 10.48 | 1942 | 6.22 |
| 1910 | 9.26 | 1921 | 8.07 | 1932 | 6.29 | 1943 | |
| 1911 | 5.78 | 1922 | 5.08 | 1933 | 6.01 | 1944 | |
| 1912 | 10.25 | 1923 | 3.15 | 1934 | 5.39 | 1945 | |
| 1913 | 4.85 | 1924 | 5.97 | 1935 | 13.16 | 1946 | |
| 1914 | 4.32 | 1925 | 3.83 | 1936 | 5.94 | 1947 | |
| 1915 | 6.93 | 1926 | 9.93 | 1937 | 6.57 | 1948 | |
| 1916 | 10.13 | 1927 | 8.22 | 1938 | 7.52 | 1949 | |

**WIND**

Prevailing direction Northwest
Total movement 3663 miles
Average hourly velocity 4.9 miles per hour
Maximum velocity for five minutes (TRUE) 19 miles per hour from NW on 26

**MISCELLANEOUS**

Total evaporation for this month 2.354 inches
Average daily evaporation 0.076 inches
Relative humidity, bihourly mean, percent 88.4
Sunshine, percentage of possible 21
Number of days clear 0 Partly cloudy 8 Cloudy 23
Number of days with .01 inch rain or more 20

**DATES**

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 7-8-9-11-14-15-16-19-27-30
Earthquakes None Felt.

Balboa Harbor Water Temp: Max. 87° Min. 81°

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month August, 1942

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 79 | .060 | .14 | 83.2 | cloudy |
| 2 | 86 | 73 | 78 | .099 | .02 | 83.0 | cloudy |
| 3 | 86 | 74 | 78 | .149 | .47 | 82.8 | pt.cldy. |
| 4 | 80 | 72 | 76 | .099 | .13 | 82.0 | cloudy |
| 5 | 90 | 73 | 80 | .059 | 0 | 83.0 | pt.cldy. |
| 6 | 91 | 76 | 82 | .094 | .09 | 83.7 | pt.cldy. |
| 7 | 85 | 74 | 78 | .126 | .64 | 83.6 | cloudy |
| 8 | 88 | 72 | 77 | .087 | .93 | 81.5 | cloudy |
| 9 | 85 | 71 | 77 | .067 | T | 80.3 | pt.cldy. |
| 10 | 89 | 74 | 80 | .044 | T | 82.3 | pt.cldy. |
| 11 | 82 | 75 | 78 | .102 | .04 | 82.1 | cloudy |
| 12 | 88 | 74 | 80 | .059 | .01 | 82.1 | cloudy |
| 13 | 82 | 73 | 76 | .094 | .55 | 81.1 | cloudy |
| 14 | 86 | 73 | 78 | .067 | 0 | 82.3 | cloudy |
| 15 | 86 | 73 | 78 | .067 | 1.98 | 82.8 | cloudy |
| 16 | 89 | 71 | 79 | .052 | .02 | 82.8 | cloudy |
| 17 | 87 | 72 | 80 | .078 | 0 | 83.7 | pt.cldy. |
| 18 | 85 | 75 | 78 | .099 | .16 | 82.4 | cloudy |
| 19 | 85 | 74 | 77 | .059 | T | 81.3 | cloudy |
| 20 | 88 | 73 | 79 | .059 | .01 | 82.1 | pt.cldy. |
| 21 | 90 | 74 | 80 | .098 | .01 | 82.8 | pt.cldy. |
| 22 | 86 | 75 | 80 | .118 | T | 82.8 | cloudy |
| 23 | 86 | 74 | 78 | .079 | .05 | 81.8 | cloudy |
| 24 | 85 | 73 | 78 | .138 | T | 81.3 | pt.cloudy |
| 25 | 89 | 73 | 81 | .051 | 0 | 81.4 | pt.cldy. |
| 26 | 88 | 75 | 81 | .091 | 0 | 83.2 | pt.cldy. |
| 27 | 88 | 74 | 81 | .126 | 0 | 83.1 | pt.cldy. |
| 28 | 85 | 75 | 79 | .102 | .15 | 83.5 | pt.cldy. |
| 29 | 86 | 73 | 80 | .091 | 0 | 83.5 | cloudy |
| 30 | 87 | 75 | 78 | .106 | T | 83.8 | cloudy |
| 31 | 90 | 72 | 80 | .071 | 0 | 84.6 | pt.cldy. |
| Total | 2688 | 2279 | - | 2.691 | 5.40 | - | |
| Mean | 86.7 | 73.5 | 78.8 | 0.087 | - | 82.6 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.846
Highest 29.980 Date 4
Lowest 29.730 Date 21

### TEMPERATURE
(Degrees Fahrenheit)

Bi-hourly

Monthly mean 78.8
Highest 91 Date 6
Lowest 71 Date 9-16
Greatest daily range 18 Date 31
Mean for this month for 37 years 78.7
Maximum for this month for 37 years 94
Minimum for this month for 37 years 68
Average excess of this month compared with a mean of 37 years +0.1

### PRECIPITATION
(Inches)

Total for this month 5.40
Greatest amount in 24 hours 1.99 Date 15-16
Average for this month for 46 years 7.73
Total from January 1, 1942 to date 34.28
Average from January 1 to date 36.34
Accumulated excess or deficiency from January 1 to date compared with average -2.06

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.44 | 1917 7.42 | 1928 0.87 | 1939 5.12 |
| 1907 7.46 | 1918 3.84 | 1929 11.96 | 1940 4.59 |
| 1908 11.48 | 1919 5.82 | 1930 4.34 | 1941 11.65 |
| 1909 6.84 | 1920 12.22 | 1931 4.28 | 1942 5.40 |
| 1910 12.00 | 1921 9.51 | 1932 7.61 | 1943 |
| 1911 7.21 | 1922 1.46 | 1933 6.55 | 1944 |
| 1912 6.33 | 1923 5.37 | 1934 4.52 | 1945 |
| 1913 8.20 | 1924 14.46 | 1935 11.41 | 1946 |
| 1914 6.09 | 1925 10.83 | 1936 6.14 | 1947 |
| 1915 15.24 | 1926 10.45 | 1937 3.80 | 1948 |
| 1916 10.53 | 1927 7.76 | 1938 11.82 | 1949 |

### WIND

Prevailing direction northwest
Total movement 3455 miles
Average hourly velocity 4.6 miles per hour
Maximum velocity for five minutes 19 miles per hour from NW on 5

### MISCELLANEOUS

Total evaporation for this month 2.691 inches
Average daily evaporation 0.087 inches
Relative humidity, bihourly mean, percent 87.8
Sunshine, percentage of possible 37
Number of days clear 0 Partly cloudy 14 Cloudy 17
Number of days with .01 inch rain or more 17

### DATES

Fogs, light None
Fogs, dense none
Halos, lunar none
Thunderstorms 1-2-4-6-7-9-10-11-12-13-14-18-21
Earthquakes none felt

Balboa Harbor Water temp. Max. 87 Min. 79

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month September, 1942

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 76 | 81 | .067 | .60 | 84.9 | Pt.Cldy |
| 2 | 84 | 75 | 78 | .134 | .45 | 84.2 | Cloudy |
| 3 | 86 | 74 | 78 | .149 | .08 | 83.7 | Cloudy |
| 4 | 84 | 74 | 77 | .055 | .49 | 84.2 | Cloudy |
| 5 | 87 | 73 | 78 | .075 | .01 | 84.0 | Pt.Cldy |
| 6 | 83 | 75 | 77 | .032 | .35 | 83.1 | Pt.Cldy |
| 7 | 71 | 72 | 79 | .059 | 0 | 83.1 | Pt.Cldy |
| 8 | 89 | 75 | 81 | .118 | 0 | 83.3 | Pt.Cldy |
| 9 | 89 | 75 | 79 | .098 | .55 | 82.7 | Cloudy |
| 10 | 86 | 74 | 79 | .099 | .04 | 82.8 | Cloudy |
| 11 | 85 | 74 | 77 | .078 | .41 | 82.2 | Cloudy |
| 12 | 87 | 73 | 78 | .119 | .03 | 81.8 | Pt.Cldy |
| 13 | 88 | 74 | 80 | .090 | 0 | 83.2 | Pt.Cldy |
| 14 | 87 | 74 | 79 | .173 | 0 | 82.7 | Pt.Cldy |
| 15 | 88 | 76 | 80 | .115 | 0 | 82.8 | Pt.Cldy |
| 16 | 87 | 71 | 77 | .047 | 1.40 | 83.2 | Cloudy |
| 17 | 86 | 72 | 79 | .115 | .07 | 82.0 | Pt.Cldy |
| 18 | 85 | 74 | 79 | .074 | .08 | 83.2 | Pt.Cldy |
| 19 | 86 | 73 | 79 | .079 | .01 | 83.7 | Pt.Cldy |
| 20 | 87 | 76 | 80 | .059 | 0 | 84.3 | Pt.Cldy |
| 21 | 87 | 75 | 81 | .079 | .08 | 84.5 | Pt.Cldy |
| 22 | 86 | 77 | 81 | .118 | 0 | 83.2 | Pt.Cldy |
| 23 | 89 | 76 | 81 | .079 | 0 | 83.3 | Cloudy |
| 24 | 83 | 75 | 78 | .098 | 2.56 | 82.0 | Cloudy |
| 25 | 85 | 75 | 79 | .059 | 0 | 81.5 | Cloudy |
| 26 | 85 | 75 | 78 | .071 | .20 | 81.1 | Cloudy |
| 27 | 80 | 72 | 75 | .055 | .48 | 80.2 | Cloudy |
| 28 | 83 | 72 | 76 | .111 | .14 | 80.2 | Cloudy |
| 29 | 86 | 72 | 78 | .051 | 0 | 80.5 | Pt.Cldy |
| 30 | 84 | 73 | 79 | .071 | .08 | 81.6 | Cloudy |
| 31 | | | | | | | |
| Total | 2583 | 2222 | - | 2.627 | 8.11 | - | |
| Means | 86.1 | 74.1 | 78.8 | 0.088 | - | 82.8 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.839
Highest 29.960 Date 5
Lowest 29.730 Date 21

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 78.8
Highest 91 Date 7
Lowest 71 Date 16
Greatest daily range 19 Date 7
Mean for this month for 37 years 73.5
Maximum for this month for 37 years 94
Minimum for this month for 37 years 68
Average excess of ~~XXXXXXXX~~ of this month compared with a mean of 37 years +0.3

### PRECIPITATION
(Inches)

Total for this month 8.11
Greatest amount in 24 hours 2.56 Date 24
Average for this month for 46 years 8.28
Total from January 1, 1942 to date 42.39
Average from January 1 to date 44.62
Accumulated ~~XXXXX~~ or deficiency from January 1 to date compared with average -2.23

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.89 | 1917 11.53 | 1928 10.44 | 1939 8.12 |
| 1907 11.14 | 1918 7.03 | 1929 9.26 | 1940 13.99 |
| 1908 5.93 | 1919 10.84 | 1930 7.61 | 1941 8.01 |
| 1909 3.86 | 1920 9.14 | 1931 11.09 | 1942 8.11 |
| 1910 4.84 | 1921 3.27 | 1932 7.23 | 1943 |
| 1911 6.03 | 1922 8.18 | 1933 5.18 | 1944 |
| 1912 8.38 | 1923 4.60 | 1934 16.38 | 1945 |
| 1913 11.43 | 1924 12.55 | 1935 4.70 | 1946 |
| 1914 9.60 | 1925 9.01 | 1936 8.62 | 1947 |
| 1915 3.69 | 1926 8.41 | 1937 10.89 | 1948 |
| 1916 8.02 | 1927 6.53 | 1938 8.23 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 3543 miles
Average hourly velocity 4.9 miles per hour
Maximum velocity for five minutes 23 miles per hour from N.E. on 16

### MISCELLANEOUS

Total evaporation for this month 2.627 inches
Average daily evaporation 0.088 inches
Relative humidity, bihourly mean, percent 89.5
Sunshine, percentage of possible 29
Number of days clear 0 Partly cloudy 16 Cloudy 14
Number of days with .01 inch rain or more 20

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 1-9-23-24
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month October, 1942

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-H. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 80 | .055 | .27 | 81.4 | Cloudy |
| 2 | 87 | 74 | 79 | .067 | .02 | 81.7 | Pt.Cldy |
| 3 | 91 | 73 | 81 | .082 | .01 | 81.8 | Pt.Cldy |
| 4 | 86 | 74 | 78 | .063 | .40 | 81.2 | Cloudy |
| 5 | 84 | 73 | 78 | .122 | 0 | 80.4 | Pt.Cldy |
| 6 | 86 | 73 | 76 | .035 | .18 | 79.4 | Cloudy |
| 7 | 81 | 72 | 76 | .079 | 0 | 79.8 | Pt.Cldy |
| 8 | 86 | 71 | 78 | .055 | T | 80.2 | Pt.Cldy |
| 9 | 88 | 73 | 78 | .055 | 0 | 80.8 | Pt.Cldy |
| 10 | 85 | 72 | 78 | .138 | .07 | 80.6 | Pt.Cldy |
| 11 | 85 | 73 | 78 | .087 | 0 | 80.7 | Pt.Cldy |
| 12 | 86 | 73 | 78 | .126 | .81 | 81.0 | Cloudy |
| 13 | 86 | 74 | 78 | .071 | .81 | 80.9 | Cloudy |
| 14 | 86 | 74 | 79 | .050 | .23 | 81.5 | Cloudy |
| 15 | 86 | 74 | 78 | .086 | .11 | 81.2 | Cloudy |
| 16 | 87 | 73 | 77 | .099 | .04 | 81.0 | Cloudy |
| 17 | 88 | 72 | 78 | .079 | 0 | 80.8 | Pt.Cldy |
| 18 | 83 | 73 | 74 | .098 | 1.83 | 80.6 | Cloudy |
| 19 | 84 | 72 | 76 | .059 | .01 | 79.3 | Cloudy |
| 20 | 85 | 74 | 78 | .059 | 0 | 79.8 | Pt.Cldy |
| 21 | 87 | 73 | 78 | .099 | T | 80.8 | Pt.Cldy |
| 22 | 85 | 74 | 79 | .059 | 0 | 81.1 | Pt.Cldy |
| 23 | 87 | 73 | 79 | .098 | 0 | 80.9 | Pt.Cldy |
| 24 | 86 | 74 | 79 | .098 | .27 | 80.7 | Cloudy |
| 25 | 81 | 74 | 78 | .103 | .13 | 80.1 | Cloudy |
| 26 | 85 | 73 | 78 | .055 | .16 | 80.6 | Cloudy |
| 27 | 84 | 72 | 76 | .098 | .16 | 80.5 | Cloudy |
| 28 | 84 | 73 | 77 | .158 | .49 | 80.5 | Cloudy |
| 29 | 84 | 74 | 77 | .079 | .07 | 81.1 | Cloudy |
| 30 | 83 | 73 | 77 | .059 | 1.18 | 81.0 | Cloudy |
| 31 | 82 | 73 | 76 | .059 | .74 | 81.0 | Cloudy |
| | 2644 | 2268 | - | 2.530 | 7.99 | | |
| Mean | 85.3 | 73.2 | 77.8 | .082 | .26 | 80.7 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.833
Highest 29.950 Date 13
Lowest 29.730 Date 5

### TEMPERATURE
Bi-Hourly (Degrees Fahrenheit)

Monthly mean 77.8
Highest 91 Date 3
Lowest 71 Date 8
Greatest daily range 18 Date 3
Mean for this month for 37 years 77.9
Maximum for this month for 37 years 95
Minimum for this month for 37 years 68
Average deficiency of this month compared with a mean of 37 years - 0.1

### PRECIPITATION
(Inches)

Total for this month 7.99
Greatest amount in 24 hours 1.84 Date 18-19
Average for this month for 46 years 10.11
Total from January 1, 1942 to date 50.38
Average from January 1 to date 54.73
Accumulated deficiency from January 1 to date compared with average - 4.35

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.35 | 1917 6.14 | 1928 10.70 | 1939 12.93 |
| 1907 9.26 | 1918 9.16 | 1929 7.89 | 1940 6.43 |
| 1908 8.79 | 1919 12.11 | 1930 8.24 | 1941 12.74 |
| 1909 8.77 | 1920 6.48 | 1931 9.26 | 1942 7.99 |
| 1910 8.86 | 1921 13.86 | 1932 11.60 | 1943 |
| 1911 10.90 | 1922 9.03 | 1933 5.88 | 1944 |
| 1912 17.89 | 1923 15.02 | 1934 11.44 | 1945 |
| 1913 8.30 | 1924 10.38 | 1935 10.73 | 1946 |
| 1914 6.44 | 1925 7.37 | 1936 9.48 | 1947 |
| 1915 10.49 | 1926 9.93 | 1937 9.13 | 1948 |
| 1916 10.17 | 1927 8.36 | 1938 12.72 | 1949 |

### WIND

Prevailing direction NW
Total movement 3622 miles
Average hourly velocity 4.9 miles per hour
Maximum velocity for five minutes 26 miles per hour from S on 11

### MISCELLANEOUS

Total evaporation for this month 2.530 inches
Average daily evaporation .082 inches
Relative humidity, bihourly mean, percent 90.7
Sunshine, percentage of possible 25
Number of days clear 0 Partly cloudy 13 Cloudy 18
Number of days with .01 inch rain or more 21

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 3-4-8-12-13-14-15
Earthquakes (No. of) 7
Water Temp: Max: 83°
Min: 78°

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month NOVEMBER, 1942.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-Hr. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 73 | 75 | .039 | .95 | 80.7 | Cldy. |
| 2 | 86 | 72 | 77 | .039 | .11 | 79.5 | Cldy. |
| 3 | 84 | 74 | 76 | .067 | 1.17 | 79.5 | Cldy. |
| 4 | 83 | 74 | 76 | .032 | .87 | 79.4 | Cldy. |
| 5 | 85 | 72 | 76 | .039 | .58 | 79.3 | Cldy. |
| 6 | 82 | 72 | 75 | .040 | .78 | 79.2 | Cldy. |
| 7 | 85 | 71 | 77 | .039 | .34 | 78.8 | Pt.Cldy. |
| 8 | 84 | 72 | 77 | .079 | .32 | 79.0 | Cldy. |
| 9 | 86 | 73 | 78 | .078 | .02 | 80.3 | Pt.Cldy. |
| 10 | 86 | 73 | 78 | .059 | .02 | 80.5 | Cldy. |
| 11 | 80 | 72 | 75 | .130 | .32 | 79.3 | Cldy. |
| 12 | 85 | 71 | 76 | .048 | .31 | 80.2 | Cldy. |
| 13 | 86 | 71 | 77 | .059 | .01 | 79.6 | Pt.Cldy. |
| 14 | 88 | 72 | 78 | .078 | T | 80.4 | Pt.Cldy. |
| 15 | 87 | 74 | 79 | .157 | 0 | 80.5 | Pt.Cldy. |
| 16 | 88 | 74 | 79 | .099 | .90 | 80.6 | Cldy. |
| 17 | 86 | 74 | 78 | .079 | .06 | 81.4 | Pt.Cldy. |
| 18 | 90 | 73 | 80 | .098 | 0 | 81.5 | Pt.Cldy. |
| 19 | 86 | 74 | 78 | .118 | T | 80.9 | Cldy |
| 20 | 87 | 74 | 79 | .079 | T | 80.3 | Pt.Cldy. |
| 21 | 92 | 73 | 79 | .138 | .07 | 80.1 | Pt.Cldy. |
| 22 | 88 | 75 | 79 | .086 | .01 | 80.6 | Pt.Cldy. |
| 23 | 89 | 73 | 80 | .091 | 0 | 80.9 | Pt.Cldy. |
| 24 | 89 | 74 | 80 | .216 | T | 80.9 | Pt.Cldy. |
| 25 | 80 | 73 | 76 | .118 | .18 | 79.9 | Cldy. |
| 26 | 83 | 71 | 76 | .099 | 1.39 | 79.1 | Pt.Cldy. |
| 27 | 87 | 71 | 78 | .059 | T | 79.2 | Pt.Cldy. |
| 28 | 87 | 72 | 78 | .039 | T | 80.1 | Pt.Cldy. |
| 29 | 86 | 73 | 78 | .047 | 0 | 80.9 | Pt.Cldy. |
| 30 | 87 | 72 | 79 | .138 | 0 | 81.8 | Pt.Cldy. |
| 31 | | | | | | | |
| | 2577 | 2182 | - | 2.487 | 8.41 | - | |
| Mean | 85.9 | 72.7 | 77.6 | 0.083 | - | 80.2 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.820
Highest 29.910 Date 27
Lowest 29.700 Date 15

### TEMPERATURE
(Degrees Fahrenheit)

Bi-Hr.

Monthly mean 77.6
Highest 92 Date 21
Lowest 71 Date 13
Greatest daily range 19 Date 21
Mean for this month for 37 years 77.6
Maximum for this month for 37 years 84
Minimum for this month for 37 years 67
Average excess or deficiency of this month compared with a mean of 37 years + 0.0

### PRECIPITATION
(Inches)

Total for this month 8.41
Greatest amount in 24 hours 1.50 Date 3 & 4
Average for this month for 46 years 10.26
Total from January 1, 1942 to date 58.79
Average from January 1 to date 64.99
Accumulated ~~XXXX~~ or deficiency from January 1 to date compared with average - 6.20

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 13.57 | 1917 | 13.77 | 1928 | 20.51 | 1939 | 6.55 |
| 1907 | 10.51 | 1918 | 9.61 | 1929 | 12.62 | 1940 | 5.35 |
| 1908 | 9.12 | 1919 | 4.97 | 1930 | 5.12 | 1941 | 7.53 |
| 1909 | 15.14 | 1920 | 19.22 | 1931 | 12.60 | 1942 | 8.41 |
| 1910 | 4.29 | 1921 | 7.11 | 1932 | 10.18 | 1943 | |
| 1911 | 7.57 | 1922 | 8.44 | 1933 | 13.28 | 1944 | |
| 1912 | 6.38 | 1923 | 8.81 | 1934 | 12.89 | 1945 | |
| 1913 | 10.63 | 1924 | 12.63 | 1935 | 19.70 | 1946 | |
| 1914 | 10.35 | 1925 | 3.52 | 1936 | 8.29 | 1947 | |
| 1915 | 7.05 | 1926 | 9.63 | 1937 | 10.18 | 1948 | |
| 1916 | 8.77 | 1927 | 5.82 | 1938 | 11.23 | 1949 | |

### WIND

Prevailing direction Northwest
Total movement 3204 miles
Average hourly velocity 4.4 miles per hour
Maximum velocity for five minutes 20 miles per hour from NW on 18

### MISCELLANEOUS

Total evaporation for this month 2.487 inches
Average daily evaporation 0.083 inches
Relative humidity, bihourly mean, percent 90.6
Sunshine, percentage of possible 34
Number of days clear 0 Partly cloudy 17 Cloudy 13
Number of days with .01 inch rain or more 19

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 2 and 4
Earthquakes None Felt

Balboa Harbor Water Temp. Max. 84
Min. 78

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month December, 1942

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-H. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 70 | 77 | .118 | .42 | 82.2 | Pt.Cldy |
| 2 | 85 | 72 | 78 | .126 | .02 | 82.2 | Pt.Cldy |
| 3 | 87 | 73 | 78 | .099 | .18 | 82.0 | Pt.Cldy |
| 4 | 85 | 72 | 78 | .098 | .02 | 81.8 | Pt.Cldy |
| 5 | 83 | 74 | 77 | .079 | .57 | 81.2 | Cloudy |
| 6 | 88 | 72 | 80 | .118 | .08 | 81.4 | Pt.Cldy |
| 7 | 89 | 74 | 80 | .051 | T | 81.4 | Pt.Cldy |
| 8 | 86 | 74 | 78 | .099 | .16 | 80.8 | Pt.Cldy |
| 9 | 88 | 73 | 79 | .086 | T | 81.7 | Pt.Cldy |
| 10 | 86 | 72 | 76 | .103 | .29 | 81.4 | Cloudy |
| 11 | 88 | 71 | 78 | .090 | 0 | 81.2 | Pt.Cldy |
| 12 | 87 | 73 | 79 | .087 | T | 81.8 | Pt.Cldy |
| 13 | 90 | 72 | 78 | .079 | .22 | 82.8 | Pt.Cldy |
| 14 | 86 | 73 | 77 | .137 | .09 | 83.0 | Pt.Cldy |
| 15 | 88 | 74 | 80 | .063 | 0 | 83.2 | Pt.Cldy |
| 16 | 85 | 75 | 78 | .059 | T | 82.6 | Cloudy |
| 17 | 83 | 73 | 78 | .099 | .48 | 81.8 | Cloudy |
| 18 | 79 | 73 | 75 | .079 | 1.74 | 80.3 | Cloudy |
| 19 | 84 | 73 | 77 | .039 | .38 | 79.5 | Cloudy |
| 20 | 86 | 74 | 78 | .106 | .27 | 79.8 | Cloudy |
| 21 | 83 | 72 | 76 | .067 | 2.22 | 79.1 | Cloudy |
| 22 | 85 | 74 | 78 | .055 | .14 | 78.6 | Pt.Cldy |
| 23 | 87 | 73 | 78 | .099 | .70 | 80.0 | Pt.Cldy |
| 24 | 90 | 70 | 78 | .086 | 0 | 80.5 | Pt.Cldy |
| 25 | 89 | 72 | 79 | .055 | T | 80.9 | Pt.Cldy |
| 26 | 87 | 73 | 77 | .119 | 2.92 | 80.5 | Cloudy |
| 27 | 84 | 72 | 76 | .059 | .28 | 79.9 | Pt.Cldy |
| 28 | 86 | 71 | 76 | .039 | .05 | 79.3 | Cloudy |
| 29 | 87 | 72 | 78 | .055 | T | 79.5 | Pt.Cldy |
| 30 | 88 | 72 | 79 | .115 | T | 79.6 | Pt.Cldy |
| 31 | 88 | 72 | 80 | .098 | T | 80.1 | Pt.Cldy |
| | 2672 | 2250 | | 2.662 | 11.23 | | |
| Mean | 86.2 | 72.6 | 77.9 | 0.086 | | 81.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.850
Highest 29.970 Date 4
Lowest 29.700 Date 31

### TEMPERATURE
(Degrees Fahrenheit)

Bi-Hourly Monthly mean 77.9
Highest 90 Date 24
Lowest 70 Date 24
Greatest daily range 20 Date 24
Mean for this month for 37 years 78.3
Maximum for this month for 37 years 94
Minimum for this month for 37 years 66
Average ~~excess or~~ deficiency of this month compared with a mean of 37 years - 0.4

### PRECIPITATION
(Inches)

Total for this month 11.23
Greatest amount in 24 hours 3.19 Date 26 - 27
Average for this month for 46 years 4.73
Total from January 1, 1942 to date 70.02
Average from January 1 to date 69.72
Accumulated excess ~~or deficiency~~ from January 1 to date compared with average + 0.30

Total precipitation in this month in:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1906 | 5.52 | 1917 | 4.09 | 1928 | 6.95 | 1939 | 6.23 |
| 1907 | 3.46 | 1918 | 0.55 | 1929 | 4.17 | 1940 | 0.20 |
| 1908 | 4.16 | 1919 | 1.81 | 1930 | 2.44 | 1941 | 5.40 |
| 1909 | 12.39 | 1920 | 1.94 | 1931 | 4.96 | 1942 | 11.23 |
| 1910 | 10.63 | 1921 | 5.19 | 1932 | 2.66 | 1943 | |
| 1911 | 1.99 | 1922 | 3.82 | 1933 | 7.35 | 1944 | |
| 1912 | 3.27 | 1923 | 3.94 | 1934 | 2.71 | 1945 | |
| 1913 | 4.84 | 1924 | 8.31 | 1935 | 4.31 | 1946 | |
| 1914 | 8.28 | 1925 | 1.88 | 1936 | 1.84 | 1947 | |
| 1915 | 3.60 | 1926 | 8.38 | 1937 | 16.81 | 1948 | |
| 1916 | 5.86 | 1927 | 2.95 | 1938 | 7.91 | 1949 | |

### WIND

Prevailing direction Northwest
Total movement 3287 miles
Average hourly velocity 4.4 miles per hour
Maximum velocity for five minutes 21 (True) miles per hour from N on 26

### MISCELLANEOUS

Total evaporation for this month 2.662 inches
Average daily evaporation 0.086 inches
Relative humidity, bihourly mean, percent 89.6
Sunshine, percentage of possible 49
Number of days clear 0 Partly cloudy 21 Cloudy 10
Number of days with .01 inch rain or more 20

### DATES

Fogs, light 23 and 24
Fogs, dense 23
Halos, lunar —
Thunderstorms 8-13-14-20 and 26
Earthquakes Dec. 22 (III, I, II)
Dec. 26 (V)
Dec. 29 (II)

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

Balboa Harbor Water Temp. Max. 85 Min. 77

MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month January, 1943

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 72 | 79 | .106 | T | 80.3 | Pt.Cldy. |
| 2 | 89 | 74 | 80 | .134 | 0 | 80.8 | Pt.Cldy. |
| 3 | 90 | 74 | 81 | .162 | 0 | 81.3 | Pt.Cldy. |
| 4 | 89 | 75 | 80 | .161 | 0 | 81.1 | Pt.Cldy. |
| 5 | 88 | 74 | 80 | .181 | 0 | 80.9 | Pt.Cldy. |
| 6 | 88 | 73 | 79 | .150 | 0 | 80.3 | Pt.Cldy. |
| 7 | 89 | 73 | 80 | .197 | .02 | 80.8 | Pt.Cldy. |
| 8 | 90 | 74 | 81 | .138 | .01 | 80.8 | Pt.Cldy. |
| 9 | 89 | 74 | 80 | .174 | 0 | 80.4 | Pt.Cldy. |
| 10 | 87 | 73 | 78 | .098 | .37 | 80.5 | Pt.Cldy. |
| 11 | 88 | 72 | 78 | .201 | T | 80.2 | Pt.Cldy |
| 12 | 89 | 71 | 78 | .189 | 0 | 79.8 | Pt.Cldy. |
| 13 | 90 | 70 | 78 | .204 | 0 | 79.8 | Pt.Cldy. |
| 14 | 86 | 72 | 77 | .134 | .07 | 79.4 | Cloudy |
| 15 | 87 | 73 | 79 | .083 | 0 | 79.0 | Pt.Cldy. |
| 16 | 88 | 72 | 80 | .114 | T | 80.2 | Pt.Cldy. |
| 17 | 90 | 74 | 80 | .126 | .01 | 81.0 | Pt.Cldy. |
| 18 | 89 | 75 | 80 | .130 | 0 | 80.5 | Pt.Cldy. |
| 19 | 90 | 73 | 80 | .196 | T | 80.5 | Pt.Cldy. |
| 20 | 89 | 73 | 79 | .201 | T | 79.8 | Pt.Cldy. |
| 21 | 89 | 69 | 77 | .158 | 0 | 80.1 | Clear |
| 22 | 88 | 68 | 77 | .224 | 0 | 80.3 | Clear |
| 23 | 90 | 70 | 78 | .181 | .05 | 80.2 | Pt.Cldy |
| 24 | 85 | 71 | 75 | .071 | .07 | 79.9 | Pt.Cldy. |
| 25 | 85 | 71 | 76 | .098 | .20 | 79.7 | Pt.Cldy. |
| 26 | 86 | 70 | 76 | .126 | 0 | 80.1 | Pt.Cldy. |
| 27 | 88 | 70 | 78 | .150 | .05 | 81.4 | Pt.Cldy. |
| 28 | 89 | 70 | 78 | .189 | 0 | 81.7 | Clear |
| 29 | 90 | 70 | 78 | .197 | .35 | 80.9 | Pt.Cldy. |
| 30 | 90 | 72 | 80 | .114 | 0 | 81.3 | Pt.Cldy. |
| 31 | 89 | 73 | 80 | .146 | 0 | 81.0 | Pt.Cldy |
| | 2745 | 2235 | - | 4.733 | 1.20 | -- | |
| Mean | 88.5 | 72.1 | 78.7 | 0.153 | -- | 80.5 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.856
Highest 30.010 Date 24
Lowest 29.700 Date 1

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 78.7
Highest 90 Date 8
Lowest 68 Date 22
Greatest daily range 20 Date 22
Mean for this month for 38 years 78.4
Maximum for this month for 38 years 93
Minimum for this month for 38 years 63
Average excess or deficiency of this month compared with a mean of 38 years +0.3

### PRECIPITATION
(Inches)

Total for this month 1.20
Greatest amount in 24 hours 0.37 Date 10
Average for this month for years
Total from January 1, 1943 to date 1.20
Average from January 1 to date 1.05
Accumulated excess or deficiency from January 1 to date compared with average +0.15

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 0.43 | 1917 0.13 | 1928 0.02 | 1939 0.43 |
| 1907 0.29 | 1918 1.78 | 1929 0.17 | 1940 3.14 |
| 1908 0.12 | 1919 0.28 | 1930 0.05 | 1941 0.87 |
| 1909 2.90 | 1920 T | 1931 T | 1942 0.30 |
| 1910 1.22 | 1921 0.88 | 1932 0.38 | 1943 0.20 |
| 1911 0.83 | 1922 1.73 | 1933 1.63 | 1944 |
| 1912 T | 1923 0.80 | 1934 4.04 | 1945 |
| 1913 0.63 | 1924 T | 1935 0.88 | 1946 |
| 1914 0.32 | 1925 1.44 | 1936 0.83 | 1947 |
| 1915 2.12 | 1926 0.01 | 1937 5.07 | 1948 |
| 1916 1.41 | 1927 0.18 | 1938 2.22 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 4443 miles
Average hourly velocity 6.0 miles per hour
Maximum velocity for five minutes 24 miles per hour from North on 29

### MISCELLANEOUS

Total evaporation for this month 4.733 inches
Average daily evaporation 0.153 inches
Relative humidity, bihourly mean, percent 82.3
Sunshine, percentage of possible 55
Number of days clear 3 Partly cloudy 27 Cloudy 1
Number of days with .01 inch rain or more 10

### DATES

Fogs, light 26th
Fogs, dense None
Halos, lunar None
Thunderstorms 24th
Earthquakes None felt
Balboa Harbor Water Temp: Max 93 Min 78

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month FEBRUARY, 1943.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 73 | 79 | .193 | 0 | 81.2 | Clear |
| 2 | 88 | 71 | 78 | .185 | 0 | 80.5 | Pt.cldy |
| 3 | 90 | 69 | 78 | .201 | 0 | 80.2 | Pt.cldy |
| 4 | 88 | 72 | 79 | .157 | T | 79.9 | Pt.cldy |
| 5 | 90 | 73 | 80 | .134 | .64 | 79.8 | Pt.cldy |
| 6 | 90 | 73 | 80 | .229 | 0 | 80.0 | Clear |
| 7 | 88 | 73 | 79 | .165 | 0 | 80.1 | Clear |
| 8 | 89 | 69 | 78 | .268 | 0 | 79.8 | Pt.cldy |
| 9 | 87 | 69 | 77 | .263 | T | 80.3 | Pt.cldy |
| 10 | 90 | 70 | 79 | .142 | 0 | 80.7 | Clear |
| 11 | 89 | 70 | 78 | .154 | 0 | 80.8 | Pt.cldy |
| 12 | 88 | 72 | 79 | .275 | 0 | 81.2 | Clear |
| 13 | 88 | 74 | 80 | .237 | 0 | 80.1 | Pt.cldy |
| 14 | 89 | 73 | 80 | .236 | 0 | 77.8 | Pt.cldy |
| 15 | 86 | 74 | 78 | .252 | .02 | 75.8 | Pt.cldy |
| 16 | 89 | 73 | 80 | .189 | 0 | 75.5 | Pt.cldy |
| 17 | 89 | 71 | 79 | .272 | 0 | 74.4 | Pt.cldy |
| 18 | 89 | 72 | 79 | .256 | 0 | 73.2 | Pt.cldy |
| 19 | 82 | 72 | 76 | .197 | .23 | 72.2 | Pt.cldy |
| 20 | 89 | 70 | 78 | .114 | 0 | 71.9 | Clear |
| 21 | 90 | 70 | 79 | .126 | 0 | 71.5 | Pt.cldy |
| 22 | 89 | 70 | 78 | .232 | 0 | 71.7 | Pt.cldy |
| 23 | 87 | 70 | 78 | .169 | 0 | 71.5 | Pt.cldy |
| 24 | 91 | 72 | 80 | .154 | 0 | 72.2 | Pt.cldy |
| 25 | 90 | 74 | 80 | .193 | 0 | 71.4 | Pt.cldy |
| 26 | 89 | 73 | 80 | .208 | 0 | 71.6 | Pt.cldy |
| 27 | 88 | 75 | 80 | .178 | 0 | 71.7 | Pt.cldy |
| 28 | 87 | 73 | 79 | .177 | 0 | 71.6 | Pt.cldy |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| | 2477 | 2010 | -- | 5.556 | 0.89 | -- | |
| Mean | 88.5 | 71.8 | 78.9 | 0.198 | -- | 76.4 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.872
Highest 29.990 Date 19
Lowest 29.750 Date 10

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 78.9
Highest 91 Date 24
Lowest 69 Date 8
Greatest daily range 21 Date 3
Mean for this month for 38 years 78.7
Maximum for this month for 38 years 95
Minimum for this month for 38 years 64
Average excess ~~or deficiency~~ of this month compared with a mean of 38 years + 0.2

### PRECIPITATION
(Inches)

Total for this month 0.89
Greatest amount in 24 hours 0.64 Date 5
Average for this month for 45 years 0.63
Total from January 1, 1943 to date 2.09
Average from January 1 to date 1.68
Accumulated excess ~~or deficiency~~ from January 1 to date compared with average + 0.41

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 0.33 | 1917 0.19 | 1928 0.32 | 1939 T |
| 1907 0.04 | 1918 T | 1929 0.02 | 1940 0.11 |
| 1908 0.24 | 1919 T | 1930 0.85 | 1941 0.53 |
| 1909 2.90 | 1920 T | 1931 T | 1942 0.44 |
| 1910 0.43 | 1921 2.37 | 1932 0.46 | 1943 0.89 |
| 1911 2.75 | 1922 2.03 | 1933 0.30 | 1944 |
| 1912 0.08 | 1923 T | 1934 0.07 | 1945 |
| 1913 0.22 | 1924 0.05 | 1935 0.36 | 1946 |
| 1914 0.02 | 1925 0.07 | 1936 T | 1947 |
| 1915 2.96 | 1926 0.07 | 1937 0.56 | 1948 |
| 1916 1.48 | 1927 1.99 | 1938 0.01 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 6058 miles
Average hourly velocity 9.0 miles per hour
Maximum velocity for five minutes 25 miles per hour from N on 14

### MISCELLANEOUS

Total evaporation for this month 5.556 inches
Average daily evaporation 0.198 inches
Relative humidity, bihourly mean, percent 76.8
Sunshine, percentage of possible 59
Number of days clear 6 Partly cloudy 22 Cloudy 0
Number of days with .01 inch rain or more 3

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes None Felt

Balboa Harbor Water Temp. Max. 83
Min 66

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month MARCH, 1943.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 72 | 79 | .157 | .01 | 71.3 | Pt.cldy |
| 2 | 89 | 73 | 80 | .193 | .05 | 72.1 | Pt.cldy |
| 3 | 92 | 72 | 80 | .119 | T | 72.2 | Pt.cldy |
| 4 | 89 | 73 | 79 | .252 | .09 | 71.7 | Pt.cldy |
| 5 | 92 | 68 | 78 | .181 | 0 | 70.8 | Pt.cldy |
| 6 | 91 | 71 | 78 | .185 | .07 | 71.7 | Pt.cldy |
| 7 | 90 | 69 | 77 | .134 | .51 | 72.8 | Pt.cldy |
| 8 | 91 | 71 | 79 | .095 | 0 | 73.2 | Clear |
| 9 | 91 | 70 | 79 | .220 | 0 | 74.1 | Pt.cldy |
| 10 | 92 | 70 | 79 | .229 | 0 | 74.8 | Clear |
| 11 | 90 | 70 | 78 | .224 | .01 | 75.3 | Pt.cldy |
| 12 | 92 | 72 | 80 | .260 | 0 | 75.8 | Pt.cldy |
| 13 | 91 | 71 | 79 | .224 | 0 | 76.1 | Clear |
| 14 | 90 | 73 | 80 | .166 | 0 | 76.2 | Clear |
| 15 | 93 | 72 | 81 | .283 | 0 | 75.1 | Clear |
| 16 | 90 | 73 | 80 | .229 | 0 | 74.4 | Clear |
| 17 | 88 | 71 | 77 | .189 | .04 | 72.9 | Pt.cldy |
| 18 | 88 | 70 | 78 | .236 | .03 | 73.8 | Pt.cldy |
| 19 | 88 | 71 | 77 | .115 | .32 | 74.0 | Pt.cldy |
| 20 | 89 | 70 | 78 | .082 | 0 | 73.1 | Pt.cldy |
| 21 | 89 | 71 | 79 | .122 | T | 73.2 | Pt.cldy |
| 22 | 91 | 72 | 80 | .122 | 0 | 72.5 | Pt.cldy |
| 23 | 90 | 71 | 79 | .166 | .28 | 72.8 | Pt.cldy |
| 24 | 91 | 71 | 80 | .118 | .03 | 73.2 | Pt.cldy |
| 25 | 91 | 72 | 80 | .122 | 0 | 74.2 | Pt.cldy |
| 26 | 92 | 73 | 81 | .138 | 0 | 74.6 | Pt.cldy |
| 27 | 90 | 72 | 80 | .153 | 0 | 74.7 | Cloudy |
| 28 | 91 | 73 | 81 | .098 | 0 | 74.3 | Pt.cldy |
| 29 | 90 | 75 | 81 | .165 | T | 74.4 | Cloudy |
| 30 | 90 | 73 | 81 | .213 | 0 | 74.6 | Pt.cldy |
| 31 | 91 | 73 | 80 | .221 | .06 | 74.3 | Pt.cldy |
| | 2801 | 2218 | -- | 5.411 | 1.50 | -- | |
| Mean | 90.4 | 71.5 | 79.4 | 0.175 | -- | 73.7 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.865
Highest 30.000 Date 14
Lowest 29.720 Date 26

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 79.4
Highest 93 Date 15
Lowest 68 Date 5
Greatest daily range 22 Date 10
Mean for this month for 38 years 79.8
Maximum for this month for 38 years 96
Minimum for this month for 38 years 65
Average [redacted] or deficiency of this month compared with a mean of 38 years - 0.4

### PRECIPITATION
(Inches)

Total for this month 1.50
Greatest amount in 24 hours 0.58 Date 6-7
Average for this month for 45 years 0.73
Total from January 1, 1943 to date 3.59
Average from January 1 to date 2.41
Accumulated excess [redacted] from January 1 to date compared with average + 1.18

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | .05 | 1917 | .02 | 1928 | 4.07 | 1939 | T |
| 1907 | T [redacted] | 1918 | 1.25 | 1929 | 2.19 | 1940 | .75 |
| 1908 | .03 | 1919 | T | 1930 | .01 | 1941 | .17 |
| 1909 | .18 | 1920 | .09 | 1931 | .70 | 1942 | 1.92 |
| 1910 | 1.83 | 1921 | 2.98 | 1932 | .13 | 1943 | 1.50 |
| 1911 | .26 | 1922 | 1.02 | 1933 | .46 | 1944 | |
| 1912 | .01 | 1923 | T | 1934 | .20 | 1945 | |
| 1913 | .43 | 1924 | .07 | 1935 | T | 1946 | |
| 1914 | T | 1925 | .07 | 1936 | .36 | 1947 | |
| 1915 | T | 1926 | 0 | 1937 | 2.44 | 1948 | |
| 1916 | .89 | 1927 | .01 | 1938 | .25 | 1949 | |

### WIND

Prevailing direction Northwest
Total movement 5188 miles
Average hourly velocity 7.0 miles per hour
Maximum velocity for five minutes 22 miles per hour from NW on 3

### MISCELLANEOUS

Total evaporation for this month 5.411 inches
Average daily evaporation 0.175 inches
Relative humidity, bihourly mean, percent 78.1
Sunshine, percentage of possible 63
Number of days clear 6 Partly cloudy 23 Cloudy 2
Number of days with .01 inch rain or more 12

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 19 - 20 - 21
Earthquakes None Felt
Balboa Harbor Water Temp. Max 78 Min 69

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month APRIL, 1943.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 73 | 81 | .196 | 0 | 74.4 | Pt. Cldy |
| 2 | 91 | 72 | 81 | .189 | 0 | 74.6 | Clear |
| 3 | 90 | 74 | 81 | .189 | 0 | 74.4 | Clear |
| 4 | 92 | 73 | 81 | .232 | 0 | 74.2 | Clear |
| 5 | 92 | 73 | 81 | .216 | 0 | 73.5 | Pt. Cldy |
| 6 | 90 | 75 | 80 | .237 | .03 | 74.2 | Pt. Cldy |
| 7 | 90 | 75 | 82 | .157 | T | 74.2 | Cloudy |
| 8 | 92 | 74 | 81 | .169 | 0 | 75.2 | Pt. Cldy |
| 9 | 87 | 76 | 79 | .067 | T | 75.2 | Cloudy |
| 10 | 91 | 74 | 80 | .079 | .29 | 76.2 | Cloudy |
| 11 | 91 | 75 | 82 | .079 | 0 | 77.0 | Pt. Cldy |
| 12 | 93 | 75 | 82 | .118 | 0 | 77.6 | Cloudy |
| 13 | 93 | 75 | 83 | .157 | 0 | 77.5 | Cloudy |
| 14 | 92 | 76 | 84 | .217 | 0 | 75.9 | Cloudy |
| 15 | 93 | 75 | 84 | .157 | 0 | 77.2 | Pt. Cldy |
| 16 | 91 | 75 | 82 | .256 | 0 | 78.4 | Pt. Cldy |
| 17 | 93 | 73 | 82 | .256 | 0 | 79.1 | Pt. Cldy |
| 18 | 91 | 75 | 80 | .228 | .13 | 80.0 | Pt. Cldy |
| 19 | 91 | 73 | 82 | .126 | T | 79.7 | Pt. Cldy |
| 20 | 95 | 74 | 81 | .138 | T | 79.6 | Pt. Cldy |
| 21 | 92 | 74 | 82 | .236 | T | 80.5 | Cloudy |
| 22 | 92 | 74 | 80 | .197 | 1.24 | 81.2 | Cloudy |
| 23 | 84 | 73 | 78 | .098 | 0 | 81.0 | Cloudy |
| 24 | 86 | 72 | 78 | .079 | 0 | 80.7 | Cloudy |
| 25 | 86 | 74 | 79 | .098 | .08 | 81.1 | Cloudy |
| 26 | 84 | 72 | 77 | .119 | 0 | 81.8 | Cloudy |
| 27 | 86 | 74 | 78 | .078 | .06 | 82.4 | Cloudy |
| 28 | 87 | 75 | 77 | .079 | 1.34 | 82.2 | Cloudy |
| 29 | 90 | 72 | 78 | .110 | .41 | 81.9 | Cloudy |
| 30 | 83 | 74 | 77 | .067 | .02 | 81.6 | Cloudy |
| 31 | | | | | | | |
| | 2700 | 2219 | - | 4.624 | - | - | |
| Mean | 90.0 | 74.0 | 80.4 | .154 | 3.60 | 78.1 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.853
Highest 29.970 Date 26
Lowest 29.730 Date 10

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 80.4
Highest 95 Date 20
Lowest 72 Date 26
Greatest daily range 21 Date 20
Mean for this month for 38 years 80.4
Maximum for this month for 38 years 97
Minimum for this month for 38 years 64
Average excess or deficiency of this month compared with a mean of 38 years ± 0.0

### PRECIPITATION
(Inches)

Total for this month 3.60
Greatest amount in 24 hours 1.34 Date 28
Average for this month for 45 years 2.87
Total from January 1, 1943 to date 7.19
Average from January 1 to date 5.28
Accumulated excess or deficiency from January 1 to date compared with average - 1.91

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 7.76 | 1917 | 2.44 | 1928 | 3.38 | 1939 | .94 |
| 1907 | T | 1918 | 4.32 | 1929 | .43 | 1940 | 1.05 |
| 1908 | 1.37 | 1919 | 6.43 | 1930 | 6.78 | 1941 | 4.74 |
| 1909 | 2.92 | 1920 | 3.02 | 1931 | 1.45 | 1942 | 2.25 |
| 1910 | 3.71 | 1921 | 1.19 | 1932 | 7.56 | 1943 | 3.60 |
| 1911 | 6.34 | 1922 | .16 | 1933 | 3.46 | 1944 | |
| 1912 | 2.68 | 1923 | .83 | 1934 | 5.09 | 1945 | |
| 1913 | .03 | 1924 | 3.72 | 1935 | 2.40 | 1946 | |
| 1914 | 4.80 | 1925 | 2.63 | 1936 | 1.64 | 1947 | |
| 1915 | 5.37 | 1926 | .08 | 1937 | 1.32 | 1948 | |
| 1916 | 2.84 | 1927 | 4.67 | 1938 | 1.93 | 1949 | |

### WIND

Prevailing direction NW
Total movement 4981 miles
Average hourly velocity 6.9 miles per hour
Maximum velocity for five minutes 24 miles per hour from N on 22

### MISCELLANEOUS

Total evaporation for this month 4.624 inches
Average daily evaporation .154 inches
Relative humidity, bihourly mean, percent 80.9
Sunshine, percentage of possible 41
Number of days clear 3 Partly cloudy 11 Cloudy 16
Number of days with .01 inch rain or more 9

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar 10 & 28
Thunderstorms 6, 10, & 18
Earthquakes

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

66-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month May, 1943

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 73 | 78 | .091 | .23 | 81 | Pt.cldy. |
| 2 | 88 | 72 | 78 | .067 | 0 | 82 | Pt.cldy |
| 3 | 88 | 73 | 78 | .043 | .82 | 81 | Cldy |
| 4 | 85 | 74 | 77 | .098 | T | 80 | Cldy |
| 5 | 87 | 74 | 79 | .079 | .03 | 80 | Cldy |
| 6 | 89 | 74 | 79 | .114 | 0 | 81 | Pt.cldy |
| 7 | 88 | 74 | 80 | .087 | 0 | 82 | Pt.cldy |
| 8 | 89 | 74 | 81 | .098 | 04 | 82 | Cldy |
| 9 | 87 | 75 | 80 | .067 | 0 | 82 | Pt.cldy |
| 10 | 94 | 75 | 83 | .079 | .22 | 81 | Pt.cldy |
| 11 | 93 | 76 | 83 | .098 | T | 81 | Pt.cldy |
| 12 | 88 | 76 | 79 | .182 | .01 | 82 | Cldy |
| 13 | 88 | 75 | 80 | .102 | .03 | 82 | Pt.cldy |
| 14 | 88 | 75 | 78 | .130 | .05 | 82 | Cldy |
| 15 | 89 | 75 | 79 | .079 | .04 | 83 | Pt.cldy |
| 16 | 85 | 74 | 79 | .078 | 0 | 84 | Pt.cldy |
| 17 | 86 | 74 | 79 | .079 | 0 | 83 | Pt.cldy |
| 18 | 89 | 71 | 80 | .118 | 0 | 84 | Pt.cldy |
| 19 | 90 | 74 | 81 | .086 | .08 | 84 | Pt.cldy |
| 20 | 89 | 76 | 79 | .091 | .37 | 84 | Cldy |
| 21 | 88 | 74 | 79 | .079 | .03 | 83 | Cldy |
| 22 | 90 | 74 | 79 | .078 | 1.46 | 83 | Cldy |
| 23 | 83 | 74 | 77 | .083 | .23 | 82 | Cldy |
| 24 | 85 | 72 | 77 | .055 | .29 | 82 | Cldy. |
| 25 | 77 | 73 | 75 | .059 | 1.78 | 82 | Cldy |
| 26 | 90 | 72 | 80 | .047 | 0 | 82 | Pt.cldy |
| 27 | 92 | 74 | 81 | .091 | 0 | 83 | Pt.cldy |
| 28 | 91 | 76 | 83 | .079 | 0 | 83 | Pt.cldy |
| 29 | 88 | 73 | 78 | .130 | .89 | 82 | Pt.cldy |
| 30 | 84 | 72 | 77 | .126 | .01 | 81 | Pt.cldy |
| 31 | 87 | 74 | 78 | .063 | .07 | 82 | Pt.cldy |
| | 2721 | 2292 | - | 2.756 | 6.68 | - | |
| Mean | 878 | 73.9 | 79.3 | .089 | - | 82.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.819
Highest 29.930 Date 31
Lowest 29.700 Date 11

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 79.3
Highest 94 Date 10
Lowest 71 Date 18
Greatest daily range 19 Date 10
Mean for this month for 38 years 79.4
Maximum for this month for 38 years 96
Minimum for this month for 38 years 69
Average excess or deficiency of this month compared with a mean of 38 years -0.1

### PRECIPITATION
(Inches)

Total for this month 6.68
Greatest amount in 24 hours 1.98 Date 24 + 25
Average for this month for 45 years 8.03
Total from January 1, 1943 to date 13.87
Average from January 1 to date 13.31
Accumulated excess or deficiency from January 1 to date compared with average +.56

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 10.68 | 1917 5.75 | 1928 4.20 | 1939 4.61 |
| 1907 4.44 | 1918 6.75 | 1929 4.04 | 1940 7.26 |
| 1908 7.64 | 1919 5.21 | 1930 9.70 | 1941 9.03 |
| 1909 9.10 | 1920 3.31 | 1931 13.15 | 1942 12.16 |
| 1910 9.89 | 1921 8.60 | 1932 9.39 | 1943 6.68 |
| 1911 11.04 | 1922 9.88 | 1933 7.96 | 1944 |
| 1912 10.71 | 1923 5.84 | 1934 4.96 | 1945 |
| 1913 8.27 | 1924 5.51 | 1935 8.10 | 1946 |
| 1914 6.98 | 1925 6.73 | 1936 6.36 | 1947 |
| 1915 6.42 | 1926 4.16 | 1937 10.98 | 1948 |
| 1916 12.59 | 1927 9.06 | 1938 12.03 | 1949 |

### WIND

Prevailing direction NW
Total movement 3554 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity for five minutes 24 miles per hour from S on 12

### MISCELLANEOUS

Total evaporation for this month 2.756 inches
Average daily evaporation .089 inches
Relative humidity, bihourly mean, percent 84.4
Sunshine, percentage of possible 35
Number of days clear 0 Partly cloudy 19 Cloudy 12
Number of days with .01 inch rain or more 19

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 3,11,13,14,15,20,21,22,29
Earthquakes (Felt) 2nd.

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month JUNE, 1943.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 74 | 79 | .094 | 1.53 | 82 | Cldy. |
| 2 | 87 | 74 | 79 | .079 | 0 | 82 | Pt.Cldy. |
| 3 | 88 | 75 | 78 | .096 | 0 | 82 | Pt.Cldy. |
| 4 | 88 | 74 | 77 | .079 | 1.40 | 81 | Cldy. |
| 5 | 85 | 73 | 77 | .059 | .16 | 81 | Cldy. |
| 6 | 84 | 74 | 78 | .059 | .45 | 81 | Cldy. |
| 7 | 87 | 74 | 80 | .079 | .36 | 82 | Cldy. |
| 8 | 87 | 73 | 80 | .079 | .99 | 82 | Pt.Cldy. |
| 9 | 86 | 74 | 79 | .078 | .20 | 82 | Pt.Cldy. |
| 10 | 90 | 75 | 79 | .059 | .24 | 83 | Cldy. |
| 11 | 87 | 73 | 79 | .079 | T | 83 | Pt.Cldy. |
| 12 | 89 | 75 | 79 | .059 | 1.66 | 83 | Cldy. |
| 13 | 88 | 74 | 77 | .059 | .43 | 83 | Cldy. |
| 14 | 83 | 73 | 76 | .083 | .19 | 82 | Cldy. |
| 15 | 88 | 72 | 79 | .055 | 0 | 82 | Pt.Cldy. |
| 16 | 86 | 74 | 78 | .059 | 0 | 83 | Pt.Cldy. |
| 17 | 82 | 74 | 78 | .079 | .14 | 82 | Cldy. |
| 18 | 85 | 73 | 78 | .059 | .01 | 82 | Pt.Cldy. |
| 19 | 88 | 74 | 80 | .079 | .08 | 82 | Pt.Cldy. |
| 20 | 89 | 75 | 81 | .055 | 0 | 83 | Pt.Cldy. |
| 21 | 86 | 76 | 79 | .102 | T | 82 | Cldy. |
| 22 | 86 | 72 | 78 | .099 | .32 | 81 | Cldy. |
| 23 | 82 | 74 | 76 | .110 | .01 | 82 | Cldy. |
| 24 | 88 | 73 | 78 | .055 | .05 | 82 | Cldy. |
| 25 | 86 | 75 | 79 | .079 | .01 | 82 | Cldy. |
| 26 | 89 | 74 | 78 | .079 | .03 | 82 | Pt.Cldy. |
| 27 | 89 | 69 | 78 | .031 | 2.16 | 83 | Pt.Cldy. |
| 28 | 82 | 69 | 75 | .080 | .01 | 80 | Cldy. |
| 29 | 87 | 71 | 77 | .050 | T | 81 | Pt.Cldy. |
| 30 | 79 | 72 | 74 | .079 | .32 | 80 | Cldy. |
| 31 | | | | | | | |
| Total | 2590 | 2202 | - | 2193 | 10.75 | - | |
| Mean | 86.3 | 73.4 | 78.1 | .073 | - | 81.9 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.841
Highest 29.950 Date 30
Lowest 29.730 Date 27

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 78.1
Highest 90 Date 10
Lowest 69 Date 28
Greatest daily range 20 Date 27
Mean for this month for 38 years 78.8
Maximum for this month for 38 years 95
Minimum for this month for 38 years 69
Average excess or deficiency of this month compared with a mean of 38 years - 0.7

### PRECIPITATION
(Inches)

Total for this month 10.75
Greatest amount in 24 hours 2.17 Date 27-28
Average for this month for 46 years 8.22
Total from January 1, 1943 to date 24.62
Average from January 1 to date 21.53
Accumulated excess or deficiency from January 1 to date compared with average - 3.09

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 6.79 | 1917 | 7.35 | 1928 | 8.78 | 1939 | 12.65 |
| 1907 | 12.64 | 1918 | 5.20 | 1929 | 9.34 | 1940 | 6.03 |
| 1908 | 4.28 | 1919 | 8.93 | 1930 | 2.50 | 1941 | 5.96 |
| 1909 | 9.90 | 1920 | 4.83 | 1931 | 7.81 | 1942 | 5.59 |
| 1910 | 8.82 | 1921 | 7.86 | 1932 | 9.23 | 1943 | 10.75 |
| 1911 | 3.40 | 1922 | 7.92 | 1933 | 14.36 | 1944 | |
| 1912 | 5.80 | 1923 | 5.59 | 1934 | 10.85 | 1945 | |
| 1913 | 8.15 | 1924 | 8.41 | 1935 | 7.54 | 1946 | |
| 1914 | 7.28 | 1925 | 18.34 | 1936 | 9.12 | 1947 | |
| 1915 | 2.85 | 1926 | 12.33 | 1937 | 7.44 | 1948 | |
| 1916 | 4.39 | 1927 | 10.83 | 1938 | 9.49 | 1949 | |

### WIND

Prevailing direction NW
Total movement 3520 miles
Average hourly velocity 4.9 miles per hour
Maximum velocity for five minutes 34 miles per hour from SE on 27

### MISCELLANEOUS

Total evaporation for this month 2.193 inches
Average daily evaporation .073 inches
Relative humidity, bihourly mean, percent 87.6
Sunshine, percentage of possible 30
Number of days clear 0 Partly cloudy 12 Cloudy 18
Number of days with .01 inch rain or more 22

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 1, 2, 5, 12, 16 & 22
Earthquakes None

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

66-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month JULY, 1943

| | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-Hr Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 70 | 77 | .078 | 0 | 80.8 | Pt.Cldy. |
| 2 | 87 | 71 | 77 | .071 | 0 | 82.2 | Pt.Cldy. |
| 3 | 86 | 74 | 78 | .075 | 1.01 | 82.3 | Cloudy |
| 4 | 85 | 73 | 78 | .071 | 0 | 82.4 | Pt.Cldy. |
| 5 | 86 | 73 | 77 | .075 | .06 | 82.3 | Cloudy |
| 6 | 88 | 73 | 79 | .043 | .12 | 82.4 | Cloudy |
| 7 | 89 | 75 | 80 | .083 | 0 | 83.2 | Pt.Cldy. |
| 8 | 90 | 75 | 80 | .074 | 0 | 83.8 | Pt.Cldy. |
| 9 | 88 | 75 | 81 | .118 | .04 | 83.6 | Pt.Cldy. |
| 10 | 89 | 75 | 81 | .134 | 0 | 83.2 | Pt.Cldy. |
| 11 | 90 | 76 | 81 | .118 | .42 | 83.0 | Pt.Cldy. |
| 12 | 91 | 75 | 82 | .118 | 0 | 82.9 | Pt.Cldy. |
| 13 | 90 | 75 | 81 | .158 | .22 | 82.8 | Pt.Cldy. |
| 14 | 89 | 75 | 79 | .098 | .13 | 82.2 | Cloudy |
| 15 | 82 | 69 | 76 | .079 | .99 | 80.8 | Cloudy |
| 16 | 88 | 74 | 80 | .039 | 0 | 81.7 | Pt.Cldy. |
| 17 | 90 | 76 | 80 | .079 | T | 81.6 | Pt.Cldy. |
| 18 | 90 | 75 | 82 | .090 | 0 | 81.9 | Clear |
| 19 | 89 | 74 | 78 | .126 | .08 | 82.0 | Pt.Cldy. |
| 20 | 89 | 73 | 79 | .099 | 0 | 82.7 | Pt.Cldy. |
| 21 | 86 | 74 | 77 | .118 | .97 | 82.9 | Cloudy |
| 22 | 86 | 75 | 78 | .114 | .01 | 82.2 | Cloudy |
| 23 | 88 | 75 | 81 | .083 | T | 83.1 | Pt.Cldy. |
| 24 | 91 | 76 | 82 | .078 | .15 | 83.8 | Pt.Cldy. |
| 25 | 82 | 70 | 75 | .174 | 1.17 | 82.0 | Cloudy |
| 26 | 86 | 70 | 77 | .035 | .27 | 81.2 | Pt.Cldy. |
| 27 | 84 | 72 | 78 | .075 | 0 | 81.2 | Pt.Cldy. |
| 28 | 85 | 73 | 78 | .051 | 0 | 81.5 | Pt.Cldy. |
| 29 | 89 | 74 | 80 | .098 | 0 | 82.2 | Pt.Cldy. |
| 30 | 88 | 74 | 79 | .118 | .61 | 83.2 | Pt.Cldy. |
| 31 | 89 | 74 | 79 | .063 | .24 | 83.0 | Pt.Cldy |
| Sum | 2716 | 2283 | - | 2.833 | 6.49 | - | - |
| Mean | 87.6 | 73.6 | 79.0 | .091 | - | 82.4 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.835
Highest 29.950 Date 25
Lowest 29.690 Date 20

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 79.0
Highest 91 Date 24
Lowest 69 Date 15
Greatest daily range 16 Date 26
Mean for this month for 38 years 78.9
Maximum for this month for 33 years 95
Minimum for this month for 38 years 67
Average excess or deficiency of this month compared with a mean of 38 years + 0.1

### PRECIPITATION
(Inches)

Total for this month 6.49
Greatest amount in 24 hours 1.31 Date 24 & 25
Average for this month for 47 years 7.15
Total from January 1, 1943 to date 31.11
Average from January 1 to date 28.68
Accumulated excess or deficiency from January 1 to date compared with average + 2.43

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 8.98 | 1917 10.17 | 1928 7.91 | 1939 5.06 |
| 1907 4.28 | 1918 5.13 | 1929 5.22 | 1940 6.23 |
| 1908 6.83 | 1919 4.75 | 1930 4.04 | 1941 6.05 |
| 1909 9.01 | 1920 6.18 | 1931 10.48 | 1942 6.22 |
| 1910 9.26 | 1921 8.07 | 1932 6.29 | 1943 6.49 |
| 1911 5.78 | 1922 5.08 | 1933 6.01 | 1944 |
| 1912 10.25 | 1923 3.15 | 1934 5.39 | 1945 |
| 1913 4.85 | 1924 5.97 | 1935 13.16 | 1946 |
| 1914 4.32 | 1925 3.83 | 1936 5.94 | 1947 |
| 1915 6.93 | 1926 9.93 | 1937 6.57 | 1948 |
| 1916 10.13 | 1927 8.22 | 1938 7.52 | 1949 |

### WIND

Prevailing direction NW
Total movement 4692 miles
Average hourly velocity 6.3 miles per hour
Maximum velocity for five minutes 33 miles per hour from SE on 25

### MISCELLANEOUS

Total evaporation for this month 2.833 inches
Average daily evaporation .091 inches
Relative humidity, bihourly mean, percent 84.9
Sunshine, percentage of possible 34
Number of days clear 1 Partly cloudy 22 Cloudy 8
Number of days with .01 inch rain or more 16

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 5, 6, 13, 19, 21, 22 & 31
Earthquakes None felt

Note.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month August, 1943

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 75 | 79 | .083 | .72 | 82.2 | Cloudy |
| 2 | 86 | 75 | 78 | .087 | T | 82.0 | Pt.Cldy. |
| 3 | 88 | 73 | 79 | .110 | .05 | 82.2 | Cloudy |
| 4 | 88 | 74 | 79 | .071 | .11 | 82.2 | Cloudy |
| 5 | 84 | 74 | 77 | .110 | .13 | 81.8 | Cloudy |
| 6 | 85 | 72 | 77 | .040 | .05 | 81.5 | Pt.Cldy. |
| 7 | 86 | 73 | 78 | .090 | .02 | 82.6 | Pt.Cldy |
| 8 | 88 | 73 | 79 | .056 | .03 | 83.5 | Pt.Cldy |
| 9 | 88 | 72 | 79 | .098 | 0 | 84.2 | Pt.Cldy. |
| 10 | 87 | 74 | 80 | .130 | 0 | 84.2 | Pt.Cldy. |
| 11 | 88 | 75 | 80 | .083 | T | 83.7 | Pt.Cldy. |
| 12 | 89 | 75 | 78 | .082 | T | 82.6 | Cloudy |
| 13 | 91 | 74 | 80 | .079 | .30 | 81.9 | Pt.Cldy. |
| 14 | 83 | 74 | 77 | .122 | 1.59 | 81.1 | Cloudy |
| 15 | 88 | 74 | 79 | .055 | .01 | 81.8 | Pt.Cldy. |
| 16 | 89 | 74 | 80 | .059 | .04 | 82.0 | Pt.Cldy. |
| 17 | 89 | 75 | 80 | .079 | .02 | 82.5 | Pt.Cldy. |
| 18 | 82 | 73 | 77 | .118 | .43 | 82.0 | Cloudy |
| 19 | 82 | 73 | 75 | .079 | .08 | 81.2 | Cloudy |
| 20 | 84 | 72 | 77 | .059 | .09 | 81.1 | Pt.Cldy. |
| 21 | 88 | 72 | 79 | .047 | .12 | 81.7 | Pt.Cldy. |
| 22 | 87 | 72 | 79 | .028 | 0 | 83.4 | Pt.Cldy. |
| 23 | 88 | 74 | 80 | .177 | 0 | 83.2 | Pt.Cldy. |
| 24 | 82 | 74 | 78 | .103 | .02 | 82.2 | Cloudy |
| 25 | 89 | 74 | 79 | .086 | 1.10 | 82.3 | Cloudy |
| 26 | 84 | 73 | 78 | .071 | .71 | 81.8 | Cloudy |
| 27 | 86 | 73 | 78 | .067 | .10 | 82.4 | Pt.Cldy. |
| 28 | 87 | 72 | 78 | .091 | .76 | 81.7 | Pt.Cldy. |
| 29 | 86 | 73 | 78 | .078 | .02 | 81.8 | Cloudy |
| 30 | 91 | 75 | 82 | .048 | 0 | 83.2 | Pt.Cldy. |
| 31 | 89 | 74 | 81 | .129 | 0 | 83.2 | Pt.Cldy. |
| Total | 2690 | 2880 | - | 2.615 | 6.50 | 0 | |
| Mean | 86.8 | 73.5 | 78.6 | .084 | -- | 82.4 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.837
Highest 29.940 Date 6
Lowest 29.720 Date 13

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 78.6
Highest 91 Date 13-30
Lowest 74 Date 20
Greatest daily range 17 Date 13
Mean for this month for 38 years 78.7
Maximum for this month for 38 years 94
Minimum for this month for 38 years 68
Average excess or deficiency of this month compared with a mean of 38 years -0.1

### PRECIPITATION
(Inches)

Total for this month 6.50
Greatest amount in 24 hours 1.87 Date 13 & 14
Average for this month for 47 years 7.71
Total from January 1, 1943 to date 37.61
Average from January 1 to date 36.39
Accumulated excess or deficiency from January 1 to date compared with average +1.22

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.44 | 1917 7.42 | 1928 6.87 | 1939 5.12 |
| 1907 7.46 | 1918 3.84 | 1929 11.96 | 1940 4.59 |
| 1908 11.48 | 1919 5.82 | 1930 4.34 | 1941 11.65 |
| 1909 6.84 | 1920 12.22 | 1931 4.28 | 1942 5.40 |
| 1910 12.00 | 1921 9.51 | 1932 7.61 | 1943 6.50 |
| 1911 7.21 | 1922 1.46 | 1933 6.55 | 1944 |
| 1912 6.33 | 1923 5.37 | 1934 4.52 | 1945 |
| 1913 8.20 | 1924 14.46 | 1935 11.41 | 1946 |
| 1914 6.09 | 1925 10.83 | 1936 6.14 | 1947 |
| 1915 15.24 | 1926 10.45 | 1937 3.80 | 1948 |
| 1916 10.53 | 1927 7.76 | 1938 11.82 | 1949 |

### WIND

Prevailing direction NW
Total movement 3976 miles
Average hourly velocity 5.3 miles per hour
Maximum velocity for five minutes 20 miles per hour from NW on 16

### MISCELLANEOUS

Total evaporation for this month 2.615 inches
Average daily evaporation .084 inches
Relative humidity, bihourly mean, percent 86.5
Sunshine, percentage of possible 31
Number of days clear 0 Partly cloudy 19 Cloudy 12
Number of days with .01 inch rain or more 22

### DATES

Fogs, light 29
Fogs, dense None
Halos, lunar None
Thunderstorms 11, 12, 13, 14, 18, 25, 26, 28, & 31
Earthquakes 12 & 27

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

4066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month September, 1943

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 74 | 81 | .079 | T | 83 | Pt Cldy |
| 2 | 90 | 73 | 78 | .138 | .40 | 83 | Cldy |
| 3 | 86 | 71 | 78 | .110 | .02 | 82 | Pt Cldy |
| 4 | 86 | 72 | 79 | .126 | .0 | 83 | Pt Cldy |
| 5 | 90 | 74 | 81 | .071 | .01 | 83 | Pt Cldy |
| 6 | 90 | 74 | 80 | .126 | .07 | 83 | Cldy |
| 7 | 83 | 75 | 77 | .094 | .27 | 83 | Cldy |
| 8 | 91 | 75 | 80 | .043 | 1.53 | 83 | Cldy |
| 9 | 87 | 76 | 80 | .060 | 01 | 82 | Pt Cldy |
| 10 | 84 | 75 | 79 | .111 | 0 | 82 | Cldy |
| 11 | 89 | 72 | 79 | .078 | 0 | 83 | Pt Cldy |
| 12 | 87 | 74 | 79 | .095 | .07 | 83 | Pt Cldy |
| 13 | 86 | 73 | 80 | .102 | 0 | 83 | Pt Cldy |
| 14 | 87 | 74 | 79 | .059 | .03 | 83 | Cldy |
| 15 | 90 | 74 | 80 | .079 | .68 | 83 | Pt Cldy |
| 16 | 91 | 71 | 79 | .079 | 1.29 | 83 | Cldy |
| 17 | 87 | 72 | 78 | .079 | T | 83 | Pt Cldy |
| 18 | 91 | 74 | 80 | .059 | 0 | 84 | Pt Cldy |
| 19 | 88 | 74 | 80 | .118 | .81 | 83 | Pt Cldy |
| 20 | 88 | 74 | 78 | .118 | .01 | 83 | Cldy |
| 21 | 85 | 73 | 79 | .102 | 1.26 | 82 | Pt Cldy |
| 22 | 89 | 73 | 80 | .036 | .06 | 84 | Pt Cldy |
| 23 | 89 | 76 | 80 | .114 | .16 | 84 | Cldy |
| 24 | 83 | 74 | 77 | .063 | .73 | 83 | Cldy |
| 25 | 85 | 72 | 77 | .059 | .16 | 83 | Pt Cldy |
| 26 | 88 | 73 | 80 | .079 | 0 | 84 | Clear |
| 27 | 85 | 74 | 77 | .079 | .27 | 83 | Cldy |
| 28 | 87 | 71 | 78 | .078 | .01 | 82 | Pt Cldy |
| 29 | 89 | 74 | 80 | .079 | .03 | 83 | Pt Cldy |
| 30 | 87 | 73 | 80 | .098 | 0 | 84 | Pt Cldy |
| 31 | | | | | | | |
| | 2627 | 2204 | - | 2.611 | 7.88 | - | |
| Mean | 87.6 | 73.5 | 79.1 | .087 | - | 83.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.818
Highest 29.950 Date 26
Lowest 29.700 Date 15

### TEMPERATURE
(Degrees Fahrenheit)

Bi-Hourly
Monthly mean 79.1
Highest 91 Date 16
Lowest 71 Date 16
Greatest daily range 20 Date 16
Mean for this month for 38 years 78.5
Maximum for this month for 38 years 94
Minimum for this month for 38 years 68
Average excess or deficiency of this month compared with a mean of 38 years +.06

### PRECIPITATION
(Inches)

Total for this month 7.88
Greatest amount in 24 hours 1.54 Date 8 - 9
Average for this month for 47 years 8.28
Total from January 1, 1943 to date 45.49
Average from January 1 to date 44.67
Accumulated excess or deficiency from January 1 to date compared with average + 0.82

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.89 | 1917 11.53 | 1928 10.44 | 1939 8.12 |
| 1907 11.14 | 1918 7.03 | 1929 9.26 | 1940 13.99 |
| 1908 5.93 | 1919 10.84 | 1930 7.61 | 1941 8.01 |
| 1909 3.86 | 1920 9.14 | 1931 11.09 | 1942 8.11 |
| 1910 4.84 | 1921 3.27 | 1932 7.23 | 1943 7.88 |
| 1911 6.03 | 1922 8.18 | 1933 5.18 | 1944 |
| 1912 8.38 | 1923 4.60 | 1934 16.38 | 1945 |
| 1913 11.43 | 1924 12.55 | 1935 4.70 | 1946 |
| 1914 9.60 | 1925 9.01 | 1936 8.62 | 1947 |
| 1915 3.69 | 1926 8.41 | 1937 10.89 | 1948 |
| 1916 8.02 | 1927 6.53 | 1938 8.23 | 1949 |

### WIND

Prevailing direction NW
Total movement 3300 miles
Average hourly velocity 4.6 miles per hour
Maximum velocity for five minutes 22 miles per hour from N on 15

### MISCELLANEOUS

Total evaporation for this month 2.611 inches
Average daily evaporation .087 inches
Relative humidity, bihourly mean, percent 79.1
Sunshine, percentage of possible 34
Number of days clear 1 Partly cloudy 18 Cloudy 11
Number of days with .01 inch rain or more 21

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 1, 2, 6, 8, 15, 16, 17, 19, 20, 21, 22 & 27
Earthquakes None

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

4066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month October, 1943

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| | | | Bi. Hr. | | | | |
| 1 | 88 | 74 | 79 | .157 | 1.19 | 84.1 | Cloudy |
| 2 | 85 | 72 | 78 | .079 | 1.35 | 82.8 | Pt.Cldy. |
| 3 | 80 | 74 | 78 | .079 | .17 | 81.6 | Cloudy |
| 4 | 88 | 74 | 80 | .106 | .01 | 82.8 | Pt.Cldy |
| 5 | 88 | 73 | 79 | .051 | T | 83.2 | Cloudy |
| 6 | 91 | 74 | 79 | .114 | .22 | 83.2 | Cloudy |
| 7 | 87 | 73 | 79 | .087 | .01 | 83.8 | Pt.Cldy |
| 8 | 86 | 74 | 79 | .083 | 10 | 83.1 | Cloudy |
| 9 | 82 | 74 | 78 | .055 | 0 | 82.5 | Cloudy |
| 10 | 87 | 75 | 79 | .035 | 09 | 83.2 | Pt.Cldy |
| 11 | 87 | 73 | 79 | .095 | 1.16 | 83.8 | Pt.Cldy |
| 12 | 82 | 71 | 75 | .063 | .22 | 82.7 | Cloudy |
| 13 | 86 | 71 | 76 | .039 | .05 | 82.4 | Pt.Cldy |
| 14 | 87 | 71 | 78 | .075 | .21 | 83.1 | Pt.Cldy. |
| 15 | 83 | 73 | 78 | .091 | .17 | 83.3 | Cloudy |
| 16 | 85 | 72 | 77 | .051 | .75 | 82.5 | Cloudy |
| 17 | 85 | 72 | 78 | .079 | .17 | 82.1 | Cloudy |
| 18 | 85 | 74 | 78 | .078 | .01 | 83.2 | Cloudy |
| 19 | 87 | 73 | 78 | .079 | .14 | 83.4 | Pt.Cldy. |
| 20 | 79 | 74 | 77 | .079 | .71 | 82.2 | Cloudy |
| 21 | 83 | 74 | 78 | .059 | .09 | 81.4 | Cloudy |
| 22 | 81 | 75 | 78 | .079 | .05 | 80.7 | Cloudy |
| 23 | 86 | 73 | 77 | .078 | .11 | 80.9 | Cloudy |
| 24 | 83 | 72 | 76 | .059 | .28 | 80.8 | Cloudy |
| 25 | 82 | 73 | 77 | .040 | .01 | 81.2 | Cloudy |
| 26 | 83 | 75 | 78 | .079 | 1.97 | 80.7 | Cloudy |
| 27 | 82 | 75 | 77 | .059 | .63 | 79.9 | Cloudy |
| 28 | 82 | 72 | 76 | .059 | .15 | 79.9 | Cloudy |
| 29 | 88 | 71 | 79 | .031 | .09 | 80.3 | Pt.Cldy. |
| 30 | 85 | 74 | 78 | .169 | .02 | 80.8 | Cloudy |
| 31 | 86 | 73 | 77 | .052 | .14 | 80.8 | Cloudy |
| Sum | 2629 | 2268 | - | 2.339 | 10.27 | - | |
| Mean | 84.8 | 73.2 | 77.9 | .075 | - | 82.2 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.818
Highest 29.950 Date 10
Lowest 29.680 Date 22

### TEMPERATURE
(Degrees Fahrenheit)

Bi-Hourly

Monthly mean 77.9
Highest 91 Date 6
Lowest 71 Date 14
Greatest daily range 17 Date 6
Mean for this month for 38 years 77.9
Maximum for this month for 38 years 95
Minimum for this month for 38 years 68
Average excess or deficiency of this month compared with a mean of 38 years + 0.0

### PRECIPITATION
(Inches)

Total for this month 10.27
Greatest amount in 24 hours 2.60 Date 26 & 27
Average for this month for 47 years 10.12
Total from January 1, 1943 to date 55.76
Average from January 1 to date 54.79
Accumulated excess ~~or deficiency~~ from January 1 to date compared with average +.97

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.35 | 1917 6.14 | 1928 10.70 | 1939 12.93 |
| 1907 9.26 | 1918 9.16 | 1929 7.89 | 1940 6.43 |
| 1908 8.79 | 1919 12.11 | 1930 8.24 | 1941 12.74 |
| 1909 8.77 | 1920 6.48 | 1931 9.26 | 1942 7.99 |
| 1910 8.86 | 1921 13.86 | 1932 11.60 | 1943 10.27 |
| 1911 10.90 | 1922 9.03 | 1933 5.88 | 1944 |
| 1912 17.89 | 1923 15.02 | 1934 11.44 | 1945 |
| 1913 8.30 | 1924 10.38 | 1935 10.73 | 1946 |
| 1914 6.44 | 1925 7.37 | 1936 9.48 | 1947 |
| 1915 10.49 | 1926 9.93 | 1937 9.13 | 1948 |
| 1916 10.17 | 1927 8.36 | 1938 12.72 | 1949 |

### WIND

Prevailing direction S.
Total movement 4502 miles
Average hourly velocity 6.1 miles per hour
Maximum velocity for five minutes 23 miles per hour from NW on 24

### MISCELLANEOUS

Total evaporation for this month 2.339 inches
Average daily evaporation .075 inches
Relative humidity, bihourly mean, percent 86.2
Sunshine, percentage of possible 31
Number of days clear 0 Partly cloudy 9 Cloudy 22
Number of days with .01 inch rain or more 29

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 4,5,6,12,13,15,23,24
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

# MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month NOVEMBER, 1943.

| Dates | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 82 | 72 | 74 | .063 | .63 | 80.8 | Cloudy |
| 2 | 85 | 72 | 77 | .059 | T | 81.7 | Cloudy |
| 3 | 85 | 71 | 75 | .059 | .13 | 82.1 | Cloudy |
| 4 | 85 | 69 | 74 | .078 | 1.24 | 81.5 | Cloudy |
| 5 | 86 | 70 | 76 | .059 | .20 | 81.6 | PtCldy. |
| 6 | 87 | 71 | 77 | .079 | .14 | 82.2 | PtCldy. |
| 7 | 86 | 73 | 78 | .063 | .52 | 82.4 | PtCldy. |
| 8 | 90 | 73 | 78 | .094 | .68 | 82.7 | Cloudy |
| 9 | 84 | 73 | 77 | .079 | .01 | 81.8 | Cloudy |
| 10 | 85 | 72 | 77 | .079 | .65 | 81.4 | PtCldy. |
| 11 | 87 | 72 | 78 | .059 | .15 | 81.8 | PtCldy. |
| 12 | 89 | 73 | 78 | .098 | .82 | 81.8 | PtCldy. |
| 13 | 82 | 73 | 76 | .079 | .02 | 81.4 | Cloudy. |
| 14 | 85 | 73 | 78 | .040 | .07 | 81.3 | PtCldy. |
| 15 | 87 | 73 | 79 | .059 | .07 | 81.8 | PtCldy. |
| 16 | 88 | 73 | 79 | .098 | .0 | 82.8 | PtCldy. |
| 17 | 89 | 74 | 80 | .059 | .14 | 82.3 | PtCldy. |
| 18 | 89 | 75 | 79 | .079 | .T | 82.5 | Cloudy |
| 19 | 87 | 75 | 78 | .079 | .28 | 81.8 | Cloudy |
| 20 | 85 | 73 | 77 | .078 | .T | 81.1 | PtCldy. |
| 21 | 85 | 72 | 76 | .020 | .04 | 81.0 | Cloudy |
| 22 | 85 | 72 | 78 | .057 | .17 | 81.0 | PtCldy |
| 23 | 86 | 72 | 77 | .169 | .03 | 81.7 | PtCldy |
| 24 | 88 | 72 | 78 | .067 | .07 | 81.2 | Cloudy |
| 25 | 87 | 73 | 78 | .099 | T | 81.3 | Pt. Cldy |
| 26 | 87 | 73 | 77 | .118 | .90 | 81.2 | Pt.Cldy |
| 27 | 88 | 73 | 76 | .098 | .24 | 80.8 | Pt.Cldy |
| 28 | 87 | 73 | 77 | .063 | .29 | 80.1 | Pt.Cldy |
| 29 | 89 | 73 | 79 | .045 | .08 | 80.3 | PtCldy |
| 30 | 90 | 73 | 80 | .040 | 0 | 80.8 | Pt.Cldy |
| 31 | | | | | | | |
| Sum | 2595 | 2176 | - | 2.216 | 7.57 | | |
| Mean | 86.5 | 72.5 | 77.4 | .074 | | 81.5 | |

## ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.828
Highest 29.950 Date 25
Lowest 29.710 Date 19

## TEMPERATURE
(Degrees Fahrenheit)

Bi-Hourly

Monthly mean 77.4
Highest 90 Date 8
Lowest 69 Date 4
Greatest daily range 17 Date 30
Mean for this month for 38 years 77.5
Maximum for this month for 38 years 94
Minimum for this month for 38 years 67
Average ~~excess~~ or deficiency of this month compared with a mean of 38 years - 0.1

## PRECIPITATION
(Inches)

Total for this month 7.57
Greatest amount in 24 hours 1.32 Date 4
Average for this month for 47 years 10.20
Total from January 1, 1943 to date 63.33
Average from January 1 to date 64.99
Accumulated excess or deficiency from January 1 to date compared with average - 1.66

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 13.57 | 1917 | 13.77 | 1928 | 20.51 | 1939 | 6.55 |
| 1907 | 10.51 | 1918 | 9.61 | 1929 | 12.62 | 1940 | 5.35 |
| 1908 | 9.12 | 1919 | 4.97 | 1930 | 5.12 | 1941 | 7.53 |
| 1909 | 15.14 | 1920 | 19.22 | 1931 | 12.60 | 1942 | 8.41 |
| 1910 | 4.29 | 1921 | 7.11 | 1932 | 10.18 | 1943 | 7.57 |
| 1911 | 7.57 | 1922 | 8.44 | 1933 | 13.28 | 1944 | |
| 1912 | 6.38 | 1923 | 8.81 | 1934 | 12.89 | 1945 | |
| 1913 | 10.63 | 1924 | 12.63 | 1935 | 19.70 | 1946 | |
| 1914 | 10.35 | 1925 | 3.52 | 1936 | 8.29 | 1947 | |
| 1915 | 7.05 | 1926 | 9.63 | 1937 | 10.18 | 1948 | |
| 1916 | 8.77 | 1927 | 5.82 | 1938 | 11.23 | 1949 | |

## WIND

Prevailing direction NW
Total movement 3880 miles
Average hourly velocity 5.4 miles per hour
Maximum velocity for five minutes 29 miles per hour from N on 28

## MISCELLANEOUS

Total evaporation for this month 2.216 inches
Average daily evaporation .074 inches
Relative humidity, bihourly mean, percent 87.1
Sunshine, percentage of possible 39
Number of days clear 0 Partly cloudy 19 Cloudy 11
Number of days with .01 inch rain or more 24

## DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 4,8,10,17,18,26
Earthquakes None felt.

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month DECEMBER, 1943

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 74 | 81 | .157 | 0 | 81.3 | pt.cldy |
| 2 | 85 | 75 | 77 | .098 | .63 | 80.8 | cldy |
| 3 | 87 | 73 | 79 | .059 | .01 | 81.2 | pt.cldy |
| 4 | 89 | 73 | 79 | .079 | 0 | 81.3 | pt.cldy |
| 5 | 89 | 72 | 79 | .118 | 0 | 81.6 | pt.cldy |
| 6 | 90 | 72 | 80 | .138 | 0 | 81.8 | pt.cldy |
| 7 | 91 | 71 | 79 | .205 | 0 | 81.5 | clear |
| 8 | 89 | 72 | 79 | .150 | .01 | 81.9 | pt.cldy |
| 9 | 92 | 74 | 82 | .078 | 0 | 82.7 | pt.cldy |
| 10 | 90 | 75 | 80 | .158 | .31 | 82.8 | cldy |
| 11 | 81 | 73 | 76 | .059 | 1.57 | 81.7 | cldy |
| 12 | 81 | 73 | 75 | .051 | .07 | 80.5 | cldy |
| 13 | 87 | 71 | 78 | .067 | 0 | 80.8 | pt.cldy |
| 14 | 88 | 73 | 79 | .059 | T | 80.3 | pt.cldy |
| 15 | 91 | 74 | 79 | .165 | .44 | 80.4 | pt.cldy |
| 16 | 89 | 73 | 79 | .040 | .05 | 80.2 | pt.cldy |
| 17 | 88 | 70 | 77 | .118 | .26 | 80.2 | pt.cldy |
| 18 | 79 | 73 | 74 | .063 | .41 | 79.1 | cldy |
| 19 | 74 | 71 | 72 | .050 | 2.92 | 76.8 | cldy |
| 20 | 84 | 70 | 76 | .040 | .74 | 76.5 | cldy |
| 21 | 84 | 71 | 77 | .063 | 0 | 79.1 | pt. cldy |
| 22 | 83 | 71 | 77 | .220 | 0 | 79.3 | pt.cldy |
| 23 | 85 | 73 | 77 | .110 | .04 | 80.0 | pt.cldy |
| 24 | 89 | 70 | 78 | .091 | .07 | 80.0 | pt.cldy |
| 25 | 88 | 70 | 77 | .126 | .05 | 78.8 | pt.cldy |
| 26 | 88 | 71 | 77 | .071 | .47 | 78.5 | pt.cldy |
| 27 | 87 | 71 | 77 | .063 | .01 | 77.9 | pt.cldy |
| 28 | 88 | 72 | 78 | .086 | .46 | 79.3 | pt.cldy |
| 29 | 90 | 71 | 78 | .083 | 0 | 79.6 | pt.cldy |
| 30 | 87 | 70 | 77 | .130 | 0 | 79.5 | pt.cldy |
| 31 | 87 | 69 | 76 | .122 | .01 | 79.3 | pt.cldy |
| Sum | 2629 | 2231 | - | 3.117 | 8.53 | | |
| Mean | 86.7 | 72.0 | 77.7 | .101 | - | 80.2 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.840
Highest 30.040 Date 19
Lowest 29.695 Date 5

### TEMPERATURE
(Degrees Fahrenheit)

Bi-H.
Monthly mean 77.7
Highest 92 Date 9
Lowest 69 Date 31
Greatest daily range 20 Date 7
Mean for this month for 38 years 78.3
Maximum for this month for 38 years 94
Minimum for this month for 38 years 66
Average excess or deficiency of this month compared with a mean of 38 years -0.6

### PRECIPITATION
(Inches)

Total for this month 8.53
Greatest amount in 24 hours 3.37 Date 19 & 20
Average for this month for 47 years 4.81
Total from January 1, 1943 to date 71.86
Average from January 1 to date 69.80
Accumulated excess or deficiency from January 1 to date compared with average +2.06

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 5.52 | 1917 4.09 | 1928 6.95 | 1939 6.23 |
| 1907 3.46 | 1918 .52 | 1929 4.17 | 1940 .20 |
| 1908 4.16 | 1919 1.81 | 1930 2.44 | 1941 5.40 |
| 1909 12.39 | 1920 1.94 | 1931 4.96 | 1942 11.23 |
| 1910 10.63 | 1921 2.19 | 1932 2.66 | 1943 |
| 1911 1.99 | 1922 3.82 | 1933 7.35 | 1944 |
| 1912 3.27 | 1923 3.94 | 1934 2.71 | 1945 |
| 1913 4.84 | 1924 8.31 | 1935 4.31 | 1946 |
| 1914 8.28 | 1925 1.88 | 1936 1.84 | 1947 |
| 1915 3.60 | 1926 8.38 | 1937 16.81 | 1948 |
| 1916 5.86 | 1927 2.95 | 1938 7.91 | 1949 |

### WIND

Prevailing direction NW
Total movement 4427 miles
Average hourly velocity 6.0 miles per hour
Maximum velocity for five minutes 23 miles per hour from NW on 21

### MISCELLANEOUS

Total evaporation for this month 3.117 inches
Average daily evaporation .101 inches
Relative humidity, bihourly mean, percent 83.6
Sunshine, percentage of possible 48
Number of days clear 1 Partly cloudy 23 Cloudy 7
Number of days with .01 inch rain or more 19

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 11th
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C.Z. ; Month JANUARY, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 67 | 77 | .071 | 0 | 78.8 | Clear |
| 2 | 89 | 67 | 78 | .177 | 0 | 78.9 | Clear |
| 3 | 88 | 70 | 78 | .166 | 0 | 78.5 | Clear |
| 4 | 88 | 72 | 79 | .185 | 0 | 78.3 | Pt.Cldy |
| 5 | 87 | 72 | 78 | .141 | T | 77.9 | Pt.Cldy |
| 6 | 88 | 71 | 78 | .213 | 0 | 77.6 | Pt.Cldy |
| 7 | 88 | 70 | 78 | .173 | 0 | 77.6 | Pt.Cldy |
| 8 | 87 | 72 | 78 | .173 | T. | 77.3 | Pt.Cldy |
| 9 | 91 | 73 | 81 | .119 | 0 | 77.4 | Clear |
| 10 | 90 | 75 | 81 | .071 | 0 | 78.1 | Pt.Cldy |
| 11 | 90 | 74 | 80 | .154 | 0 | 77.2 | Pt.Cldy |
| 12 | 90 | 73 | 80 | .114 | 0 | 76.2 | Pt.Cldy |
| 13 | 89 | 71 | 79 | .138 | 0 | 77.3 | Pt.Cldy |
| 14 | 90 | 72 | 79 | .153 | 0 | 77.9 | Pt.Cldy |
| 15 | 88 | 71 | 78 | .158 | 0 | 78.2 | Clear |
| 16 | 88 | 71 | 79 | .177 | 0 | 78.9 | Clear |
| 17 | 89 | 70 | 79 | .221 | 0 | 79.0 | Clear |
| 18 | 85 | 73 | 78 | .169 | T. | 78.8 | Pt.Cldy |
| 19 | 88 | 72 | 78 | .221 | .08 | 78.8 | Pt.Cldy |
| 20 | 90 | 71 | 79 | .094 | 0 | 78.8 | Pt.Cldy |
| 21 | 86 | 70 | 77 | .185 | T. | 78.9 | Pt.Cldy |
| 22 | 89 | 69 | 78 | .138 | T. | 78.8 | Pt.Cldy |
| 23 | 89 | 71 | 79 | .236 | 0 | 78.9 | Pt.Cldy |
| 24 | 81 | 72 | 76 | .197 | .01 | 77.7 | Cloudy |
| 25 | 89 | 71 | 77 | .079 | .04 | 77.2 | Pt.Cldy |
| 26 | 89 | 71 | 78 | .086 | T | 76.4 | Pt.Cldy |
| 27 | 90 | 70 | 78 | .146 | 0 | 75.2 | Pt.Cldy |
| 28 | 89 | 71 | 78 | .181 | 0 | 75.0 | Clear |
| 29 | 90 | 69 | 79 | .197 | 0 | 75.0 | Clear |
| 30 | 88 | 70 | 76 | .169 | 53 | 75.5 | Pt.Cldy |
| 31 | 84 | 70 | 75 | .118 | .13 | 75.9 | Pt.Cldy |
| | 2737 | 2201 | - | 4.820 | 0.79 | - | |
| Mean | 88.3 | 71.0 | 78.3 | .155 | | 77.6 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.860
Highest 29.980 Date 31
Lowest 29.700 Date 10

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 78.3
Highest 91 Date 9
Lowest 67 Date 2
Greatest daily range 23 Date 1
Mean for this month for 39 years 78.4
Maximum for this month for 39 years 93
Minimum for this month for 39 years 63
Average [redacted] or deficiency of this month compared with a mean of years -0.1

### PRECIPITATION
(Inches)

Total for this month 0.79
Greatest amount in 24 hours 0.53 Date 30
Average for this month for 46 years 1.04
Total from January 1, 19__ to date .79
Average from January 1 to date 1.04
Accumulated excess or deficiency from January 1 to date compared with average -.25

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .43 | 1917 .13 | 1928 .02 | 1939 .43 |
| 1907 .29 | 1918 1.78 | 1929 .17 | 1940 3.14 |
| 1908 .12 | 1919 .28 | 1930 .05 | 1941 .87 |
| 1909 2.90 | 1920 T | 1931 T | 1942 .30 |
| 1910 1.22 | 1921 .88 | 1932 .38 | 1943 1.20 |
| 1911 .83 | 1922 1.73 | 1933 1.63 | 1944 0.79 |
| 1912 T | 1923 .80 | 1934 4.04 | 1945 |
| 1913 .63 | 1924 T | 1935 .88 | 1946 |
| 1914 .32 | 1925 1.44 | 1936 .83 | 1947 |
| 1915 2.12 | 1926 .01 | 1937 5.07 | 1948 |
| 1916 1.41 | 1927 .18 | 1938 2.20 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 5932 miles
Average hourly velocity 8.0 miles per hour
Maximum velocity for five minutes 24 miles per hour from North on 18

### MISCELLANEOUS

Total evaporation for this month 4.820 inches
Average daily evaporation .155 inches
Relative humidity, bihourly mean, percent 77.3
Sunshine, percentage of possible 75
Number of days clear 9 Partly cloudy 21 Cloudy 1
Number of days with .01 inch rain or more 5

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes None felt

Note—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month FEBRUARY, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi.-H. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 70 | 77 | .181 | 0 | 76.1 | Pt.Cldy |
| 2 | 87 | 72 | 78 | .165 | T | 76.3 | Pt.Cldy |
| 3 | 87 | 73 | 80 | .134 | 0 | 76.5 | Cloudy |
| 4 | 88 | 73 | 79 | .103 | 0 | 76.6 | Pt.Cldy |
| 5 | 88 | 72 | 79 | .173 | 0 | 76.3 | Pt.Cldy |
| 6 | 88 | 71 | 79 | .267 | 0 | 76.9 | Pt.Cldy |
| 7 | 89 | 72 | 79 | .162 | 0 | 77.8 | Clear |
| 8 | 89 | 70 | 78 | .224 | 0 | 78.2 | Clear |
| 9 | 89 | 71 | 79 | .256 | 0 | 78.0 | Clear |
| 10 | 89 | 70 | 79 | .267 | 0 | 77.5 | Clear |
| 11 | 90 | 71 | 79 | .250 | 0 | 76.5 | Pt.Cldy |
| 12 | 90 | 70 | 79 | .173 | 0 | 75.7 | Clear |
| 13 | 90 | 71 | 79 | .158 | 0 | 74.9 | Pt.Cldy |
| 14 | 91 | 71 | 80 | .268 | 0 | 75.6 | Clear |
| 15 | 91 | 71 | 80 | 173 | 0 | 75.2 | Clear |
| 16 | 91 | 72 | 80 | 197 | 0 | 74.8 | Clear |
| 17 | 90 | 73 | 80 | 236 | 0 | 74.7 | Pt.Cldy |
| 18 | 91 | 72 | 80 | 197 | 0 | 74.0 | Pt.Cldy |
| 19 | 90 | 73 | 79 | 197 | 0 | 73.7 | Pt.Cldy |
| 20 | 90 | 71 | 79 | 196 | 0 | 72.8 | Pt.Cldy |
| 21 | 91 | 70 | 79 | 197 | 0 | 72.3 | Pt.Cldy |
| 22 | 90 | 72 | 80 | 197 | 0 | 72.2 | Pt.Cldy |
| 23 | 90 | 72 | 80 | 196 | 0 | 72.1 | Clear |
| 24 | 88 | 73 | 79 | 248 | 0 | 70.9 | Pt.Cldy |
| 25 | 91 | 70 | 78 | 186 | 0 | 70.2 | Clear |
| 26 | 90 | 68 | 77 | 248 | 0 | 70.7 | Clear |
| 27 | 91 | 70 | 79 | 162 | 0 | 71.5 | Clear |
| 28 | 91 | 71 | 79 | 209 | 0 | 72.3 | Pt.Cldy |
| 29 | 91 | 71 | 79 | 291 | 0 | 71.7 | Pt.Cldy |
| 30 | | | | | | | |
| 31 | | | | | | | |
| | 2598 | 2066 | – | 5.814 | T | — | |
| Mean | 89.6 | 71.2 | 79.1 | .200 | 0 | 74.5 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.875
Highest 29.985 Date
Lowest 29.760 Date

### TEMPERATURE
(Degrees Fahrenheit)

Bi.-H.

Monthly mean 79.1
Highest 91 Date 15
Lowest 68 Date 26
Greatest daily range 22 Date 29
Mean for this month for 39 years 78.7
Maximum for this month for 39 years 95
Minimum for this month for 39 years 64
Average excess or deficiency of this month compared with a mean of 39 years +0.4

### PRECIPITATION
(Inches)

Total for this month T
Greatest amount in 24 hours T Date 2
Average for this month for 64 years .44
Total from January 1, 1944 to date .79
Average from January 1 to date 1.48
Accumulated excess or deficiency from January 1 to date compared with average -.69

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .33 | 1917 .19 | 1928 .32 | 1939 T |
| 1907 .04 | 1918 T | 1929 .02 | 1940 .11 |
| 1908 .24 | 1919 T | 1930 .85 | 1941 .53 |
| 1909 2.90 | 1920 T | 1931 T | 1942 .44 |
| 1910 .43 | 1921 2.37 | 1932 .46 | 1943 .89 |
| 1911 2.75 | 1922 2.03 | 1933 .30 | 1944 T |
| 1912 .08 | 1923 T | 1934 .07 | 1945 |
| 1913 .22 | 1924 .05 | 1935 .36 | 1946 |
| 1914 .02 | 1925 .07 | 1936 T | 1947 |
| 1915 2.96 | 1926 .07 | 1937 .56 | 1948 |
| 1916 1.47 | 1927 1.99 | 1938 .01 | 1949 |

### WIND

Prevailing direction NW
Total movement 6458 miles
Average hourly velocity 9.3 miles per hour
Maximum velocity for five minutes 24 miles per hour from N on 6

### MISCELLANEOUS

Total evaporation for this month 5.814 inches
Average daily evaporation .200 inches
Relative humidity, bihourly mean, percent 72.4
Sunshine, percentage of possible 79
Number of days clear 1 Partly cloudy 16 Cloudy 12
Number of days with .01 inch rain or more 0

### DATES

Fogs, light None
Fogs, dense None
Halos, Solar 5
Thunderstorms None
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month March, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 70 | 80 | .181 | 0 | 71.9 | clear |
| 2 | 85 | 74 | 77 | .237 | T | 70.9 | cldy |
| 3 | 92 | 73 | 81 | .157 | 0 | 70.6 | pt.cldy |
| 4 | 92 | 73 | 81 | .197 | 0 | 71.0 | pt.cldy |
| 5 | 92 | 75 | 81 | .197 | 0 | 71.4 | clear |
| 6 | 93 | 75 | 82 | .157 | 0 | 73.1 | pt.cldy |
| 7 | 94 | 73 | 81 | .196 | 0 | 74.1 | pt.cldy |
| 8 | 91 | 73 | 81 | .197 | 0 | 74.4 | pt.cldy |
| 9 | 91 | 74 | 81 | .237 | 0 | 75.0 | clear |
| 10 | 90 | 74 | 80 | .248 | 0 | 75.1 | clear |
| 11 | 91 | 73 | 80 | .220 | 0 | 74.7 | clear |
| 12 | 90 | 70 | 79 | .248 | 0 | 75.6 | clear |
| 13 | 92 | 69 | 80 | .236 | 0 | 76.0 | clear |
| 14 | 91 | 70 | 79 | .378 | 0 | 76.2 | clear |
| 15 | 92 | 69 | 79 | .197 | 0 | 75.6 | pt.cldy |
| 16 | 90 | 70 | 79 | .217 | 0 | 76.0 | pt.cldy |
| 17 | 93 | 69 | 79 | .177 | 0 | 76.2 | clear |
| 18 | 93 | 70 | 80 | .216 | 0 | 76.3 | clear |
| 19 | 93 | 70 | 80 | .275 | 0 | 75.2 | clear |
| 20 | 89 | 72 | 79 | .197 | 0 | 73.8 | clear |
| 21 | 92 | 73 | 81 | .158 | 0 | 74.1 | pt.cldy |
| 22 | 91 | 75 | 81 | .236 | 0 | 73.8 | cldy |
| 23 | 91 | 70 | 80 | .197 | 0 | 73.2 | pt.cldy |
| 24 | 91 | 69 | 80 | .220 | 0 | 73.8 | clear |
| 25 | 92 | 71 | 80 | .217 | 0 | 73.9 | clear |
| 26 | 92 | 74 | 82 | .237 | 0 | 73.7 | clear |
| 27 | 92 | 73 | 81 | .287 | 0 | 73.2 | clear |
| 28 | 92 | 75 | 82 | .248 | 0 | 73.1 | pt.cldy |
| 29 | 93 | 74 | 82 | .236 | 0 | 73.2 | pt.cldy |
| 30 | 91 | 73 | 81 | .205 | 0 | 72.9 | pt.cldy |
| 31 | 89 | 71 | 80 | .158 | 0 | 73.2 | pt.cldy |
| | 2831 | 2234 | - | 6.764 | T | - | |
| Mean | 91.3 | 72.1 | 80.2 | .218 | - | 73.9 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.852
Highest 29.980 Date 22
Lowest 29.730 Date 6

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 80.2
Highest 94 Date 7
Lowest 69 Date 15
Greatest daily range 24 Date 17
Mean for this month for 39 years 79.8
Maximum for this month for 39 years 96
Minimum for this month for 39 years 65
Average excess or deficiency of this month compared with a mean of 39 years + 0.4

### PRECIPITATION
(Inches)

Total for this month T
Greatest amount in 24 hours T Date 2
Average for this month for 46 years .72
Total from January 1, 1944 to date .79
Average from January 1 to date 2.20
Accumulated excess or deficiency from January 1 to date compared with average -1.41

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | .05 | 1917 | .02 | 1928 | 4.07 | 1939 | T |
| 1907 | T | 1918 | 1.25 | 1929 | 2.19 | 1940 | .75 |
| 1908 | .03 | 1919 | T | 1930 | .01 | 1941 | .17 |
| 1909 | .18 | 1920 | .09 | 1931 | .70 | 1942 | 1.92 |
| 1910 | 1.83 | 1921 | 2.98 | 1932 | .13 | 1943 | 1.50 |
| 1911 | .26 | 1922 | 1.02 | 1933 | .46 | 1944 | T |
| 1912 | .01 | 1923 | T | 1934 | .20 | 1945 | |
| 1913 | .43 | 1924 | .07 | 1935 | T | 1946 | |
| 1914 | T | 1925 | .07 | 1936 | .36 | 1947 | |
| 1915 | T | 1926 | 0 | 1937 | 2.44 | 1948 | |
| 1916 | .89 | 1927 | .01 | 1938 | .25 | 1949 | |

### WIND

Prevailing direction NW
Total movement 6911 miles
Average hourly velocity 9.3 miles per hour
Maximum velocity for five minutes 24 miles per hour from N on 1st

### MISCELLANEOUS

Total evaporation for this month 6.764 inches
Average daily evaporation .218 inches
Relative humidity, bihourly mean, percent 71.2
Sunshine, percentage of possible 74
Number of days clear 16 Partly cloudy 13 Cloudy 2
Number of days with .01 inch rain or more None

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes None

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 74990—Panama Canal—11-10-40—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month April, 1944.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 70 | 80.1 | .244 | .0 | 73.4 | Clear |
| 2 | 92 | 71 | 80.2 | .217 | 0 | 73.2 | Clear |
| 3 | 91 | 74 | 81.5 | .256 | 0 | 73.6 | Pt.cldy |
| 4 | 88 | 75 | 80.0 | .197 | T | 74.1 | Pt.cldy |
| 5 | 94 | 75 | 82.5 | .141 | 0 | 74.6 | Pt.cldy |
| 6 | 94 | 77 | 83.2 | .154 | 0 | 73.9 | Pt.cldy |
| 7 | 95 | 76 | 83.6 | .217 | 0 | 73.4 | Pt.cldy |
| 8 | 94 | 75 | 82.7 | .276 | 0 | 73.2 | Pt.cldy |
| 9 | 94 | 75 | 83.2 | .248 | 0 | 73.6 | Clear |
| 10 | 95 | 73 | 82.7 | .224 | 0 | 73.9 | Clear |
| 11 | 92 | 73 | 81.9 | .236 | 0 | 74.2 | Pt.cldy |
| 12 | 95 | 74 | 82.6 | .158 | 0 | 74.2 | Pt.cldy |
| 13 | 94 | 73 | 82.5 | .177 | 0 | 74.6 | Clear |
| 14 | 93 | 75 | 82.8 | .236 | 0 | 74.4 | Pt.cldy |
| 15 | 92 | 75 | 82.3 | .236 | 0 | 74.2 | Pt.cldy |
| 16 | 95 | 76 | 83.6 | .179 | 0 | 74.7 | Pt.cldy |
| 17 | 94 | 75 | 83.0 | .177 | 0 | 76.0 | Pt.cldy |
| 18 | 85 | 75 | 80.2 | .212 | T | 76.2 | Cldy |
| 19 | 88 | 73 | 79.8 | .079 | T | 76.8 | Pt.cldy |
| 20 | 92 | 74 | 82.3 | .118 | 0 | 77.4 | Pt.cldy |
| 21 | 92 | 74 | 81.5 | .126 | .05 | 77.2 | Pt.cldy |
| 22 | 94 | 73 | 82.1 | .204 | 0 | 76.1 | Pt.cldy |
| 23 | 88 | 71 | 79.6 | .213 | 0 | 76.2 | Pt.cldy |
| 24 | 91 | 74 | 80.6 | .087 | 0 | 77.4 | Pt.cldy |
| 25 | 91 | 73 | 80.2 | .157 | .04 | 77.6 | Pt.cldy |
| 26 | 90 | 73 | 79.2 | .157 | .08 | 78.2 | Pt.cldy |
| 27 | 93 | 74 | 81.4 | .119 | 0 | 78.6 | Pt.cldy |
| 28 | 87 | 72 | 76.4 | .177 | 3.20 | 78.3 | Cldy |
| 29 | 87 | 73 | 77.7 | .099 | .21 | 79.1 | Cldy |
| 30 | 91 | 73 | 79.9 | .078 | .01 | 80.2 | Cldy |
| 31 | | | | | | | |
| | 2754 | 2214 | | 5.399 | 3.59 | | |
| Mean | 91.8 | 73.8 | 81.3 | .180 | | 75.6 | |

Note: ..... indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.828
Highest 29.940 Date 20
Lowest 29.655 Date 8

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 81.3
Highest 95 Date 12
Lowest 70 Date 1
Greatest daily range 23 Date 1
Mean for this month for 39 years 80.4
Maximum for this month for 39 years 97
Minimum for this month for 39 years 64
Average excess [redacted] of this month compared with a mean of 39 years + 0.9

### PRECIPITATION
(Inches)

Total for this month 3.59
Greatest amount in 24 hours 3.40 Date 28 + 29
Average for this month for 46 years 2.89
Total from January 1, 1944 to date 4.38
Average from January 1 to date 5.09
Accumulated [redacted] deficiency from January 1 to date compared with average - .71

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 7.76 | 1917 2.24 | 1928 3.38 | 1939 .94 |
| 1907 T | 1918 4.52 | 1929 .43 | 1940 1.05 |
| 1908 1.37 | 1919 6.43 | 1930 6.78 | 1941 4.74 |
| 1909 2.92 | 1920 3.02 | 1931 1.45 | 1942 2.25 |
| 1910 3.71 | 1921 1.19 | 1932 7.56 | 1943 3.60 |
| 1911 6.34 | 1922 .16 | 1933 3.46 | 1944 3.59 |
| 1912 2.68 | 1923 .83 | 1934 5.09 | 1945 |
| 1913 .03 | 1924 3.72 | 1935 2.40 | 1946 |
| 1914 4.80 | 1925 2.63 | 1936 1.64 | 1947 |
| 1915 5.37 | 1926 .08 | 1937 1.32 | 1948 |
| 1916 2.84 | 1927 4.67 | 1938 1.93 | 1949 |

### WIND

Prevailing direction NW
Total movement 6123 miles
Average hourly velocity 8.5 miles per hour
Maximum velocity for five minutes 24 miles per hour from N on 2

### MISCELLANEOUS

Total evaporation for this month 5.399 inches
Average daily evaporation .180 inches
Relative humidity, bihourly mean, percent 75.5
Sunshine, percentage of possible 55
Number of days clear 5 Partly cloudy 21 Cloudy 4
Number of days with .01 inch rain or more 6

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 24, 28
Earthquakes None felt

1066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, --BALBOA HEIGHTS----------; Month ---------MAY----------, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bi Hi | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 74 | 78.3 | .099 | 1.81 | 79.5 | Pt. cldy. |
| 2 | 92 | 73 | 80.0 | .098 | .27 | 78.9 | cldy. |
| 3 | 91 | 74 | 81.8 | .118 | T | 80.7 | Pt. Cldy. |
| 4 | 88 | 74 | 79.5 | .099 | .35 | 80.2 | cldy. |
| 5 | 85 | 73 | 76.6 | .098 | .60 | 79.5 | cldy |
| 6 | 89 | 72 | 78.6 | .079 | .02 | 80.2 | Pt. cldy. |
| 7 | 84 | 74 | 77.3 | .083 | .48 | 79.1 | cldy |
| 8 | 83 | 71 | 75.6 | .094 | .05 | 79.8 | cldy |
| 9 | 92 | 71 | 80.1 | .059 | 0 | 80.5 | Pt. cldy. |
| 10 | 89 | 73 | 80.1 | .205 | 0 | 80.7 | Pt. cldy. |
| 11 | 86 | 73 | 77.1 | .196 | .06 | 81.0 | cldy |
| 12 | 85 | 73 | 76.7 | .134 | .53 | 80.9 | cldy |
| 13 | 86 | 73 | 77.4 | .083 | .25 | 80.5 | cldy |
| 14 | 87 | 74 | 77.9 | .098 | 0 | 80.5 | Pt. cldy. |
| 15 | 88 | 74 | 79.5 | .130 | 0 | 80.2 | pt. cldy |
| 16 | 86 | 75 | 77.6 | .130 | 1.29 | 80.0 | cldy |
| 17 | 90 | 74 | 79.2 | .051 | T | 80.2 | pt. cldy. |
| 18 | 90 | 74 | 81.2 | .075 | T | 79.9 | pt. cldy |
| 19 | 90 | 74 | 80.5 | .106 | .33 | 79.8 | pt. cldy |
| 20 | 90 | 73 | 80.4 | .107 | 0 | 79.5 | pt. cldy |
| 21 | 88 | 76 | 79.3 | .098 | .24 | 80.0 | cldy |
| 22 | 87 | 76 | 79.1 | .130 | .24 | 80.5 | cldy |
| 23 | 83 | 74 | 78.2 | .087 | .01 | 81.0 | cldy |
| 24 | 84 | 74 | 77.8 | .122 | .10 | 81.0 | pt cldy |
| 25 | 89 | 72 | 79.8 | .035 | 0 | 81.2 | pt cldy |
| 26 | 89 | 74 | 81.2 | .071 | 0 | 81.3 | cldy |
| 27 | 88 | 76 | 80.2 | .071 | 0 | 81.9 | cldy |
| 28 | 88 | 75 | 80.5 | .094 | .05 | 82.5 | pt. cldy |
| 29 | 78 | 74 | 76.4 | .087 | 1.61 | 82.1 | cldy |
| 30 | 88 | 72 | 79.4 | .063 | 0 | 81.8 | cldy |
| 31 | 86 | 74 | 77.8 | .047 | .06 | 83.0 | pt. cldy |
| Sum | 2707 | 2283 | — | 3.047 | 8.35 | -- | |
| Mean | 87.3 | 73.6 | 78.9 | .098 | — | 80.6 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.851
Highest 29.950 Date 5
Lowest 29.740 Date 3

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 78.9
Highest 92 Date 2
Lowest 71 Date 8
Greatest daily range 21 Date 9
Mean for this month for 39 years 79.4
Maximum for this month for 39 years 96
Minimum for this month for 39 years 69
Average excess or deficiency of this month compared with a mean of 39 years -0.5

### PRECIPITATION
(Inches)

Total for this month 8.35
Greatest amount in 24 hours 1.81 Date 1st
Average for this month for 46 years 8.04
Total from January 1, 1944 to date 12.73
Average from January 1 to date 13.13
Accumulated excess or deficiency from January 1 to date compared with average -0.40

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 10.68 | 1917 5.75 | 1928 4.20 | 1939 4.61 |
| 1907 4.44 | 1918 6.75 | 1929 4.04 | 1940 7.26 |
| 1908 7.64 | 1919 5.21 | 1930 9.70 | 1941 9.03 |
| 1909 9.10 | 1920 3.31 | 1931 13.15 | 1942 12.16 |
| 1910 9.89 | 1921 8.60 | 1932 9.39 | 1943 6.68 |
| 1911 11.04 | 1922 9.88 | 1933 7.96 | 1944 8.35 |
| 1912 10.71 | 1923 5.84 | 1934 4.96 | 1945 |
| 1913 8.27 | 1924 5.51 | 1935 8.10 | 1946 |
| 1914 6.98 | 1925 6.73 | 1936 6.36 | 1947 |
| 1915 6.42 | 1926 4.16 | 1937 10.98 | 1948 |
| 1916 12.59 | 1927 9.06 | 1938 12.03 | 1949 |

### WIND

Prevailing direction NW
Total movement 4339 miles
Average hourly velocity 5.8 miles per hour
Maximum velocity for five minutes 21 miles per hour from NW on 14

### MISCELLANEOUS

Total evaporation for this month 3.047 inches
Average daily evaporation .098 inches
Relative humidity, bihourly mean, percent 86.6
Sunshine, percentage of possible 35
Number of days clear 0 Partly cloudy 15 Cloudy 16
Number of days with .01 inch rain or more 19

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 17, 18 & 25
Earthquakes
None felt

166-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Hts.; Month June, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bi-hr | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 72 | 76.4 | .052 | 2.58 | 83.1 | Cldy. |
| 2 | 85 | 73 | 77.7 | .078 | 0 | 82.9 | Cldy. |
| 3 | 86 | 75 | 77.8 | .042 | .21 | 83.6 | Cldy. |
| 4 | 89 | 76 | 80.8 | .036 | 0 | 84.3 | Pt. Cldy |
| 5 | 90 | 74 | 81.0 | .102 | .01 | 83.2 | Pt. Cldy |
| 6 | 86 | 74 | 80.1 | .087 | .16 | 83.2 | Cldy. |
| 7 | 81 | 74 | 77.8 | .083 | 2.14 | 82.2 | Cldy. |
| 8 | 83 | 75 | 78.5 | .055 | 2.82 | 81.2 | Cldy. |
| 9 | 81 | 73 | 76.9 | .043 | 1.98 | 80.8 | Cldy |
| 10 | 86 | 74 | 78.2 | .028 | 2.09 | 82.1 | Cldy. |
| 11 | 81 | 73 | 76.8 | .078 | 13 | 81.9 | Cldy. |
| 12 | 86 | 73 | 78.8 | .060 | 0 | 81.8 | Pt.Cldy. |
| 13 | 87 | 73 | 80.3 | .074 | 0 | 81.3 | Pt.Cldy. |
| 14 | 86 | 74 | 81.0 | .103 | 0 | 82.1 | Pt.Cldy. |
| 15 | 81 | 76 | 78.4 | .086 | .09 | 82.0 | Cldy. |
| 16 | 86 | 75 | 79.7 | .083 | 0 | 81.7 | Pt.Cldy. |
| 17 | 84 | 74 | 78.0 | .079 | .09 | 81.9 | Cldy. |
| 18 | 86 | 73 | 78.0 | .043 | 0 | 82.0 | Pt.Cldy |
| 19 | 85 | 72 | 77.8 | .102 | 0 | 81.8 | Cldy |
| 20 | 82 | 74 | 77.1 | .040 | 42 | 81.8 | Cldy |
| 21 | 86 | 75 | 80.2 | .075 | 0 | 82.5 | Pt.Cldy |
| 22 | 83 | 74 | 77.5 | .090 | 1.44 | 82.5 | Cldy |
| 23 | 82 | 72 | 76.7 | .075 | 37 | 82.2 | Cldy |
| 24 | 88 | 71 | 79.2 | .051 | 0 | 82.6 | Pt.Cldy |
| 25 | 90 | 73 | 81.2 | .079 | 03 | 82.5 | Pt.Cldy |
| 26 | 88 | 75 | 78.5 | .104 | 0 | 82.8 | Pt.Cldy |
| 27 | 92 | 74 | 81.0 | .078 | 0 | 83.0 | Pt.Cldy |
| 28 | 89 | 76 | 80.8 | .103 | 0 | 83.0 | Cldy. |
| 29 | 90 | 74 | 80.0 | .134 | .34 | 83.0 | Cldy. |
| 30 | 83 | 70 | 76.4 | .103 | .47 | 82.8 | Pt.Cldy. |
| 31 | | | | | | | |
| Sum | 2567 | 2213 | — | 22.46 | 15.37 | — | |
| Mean | 85.6 | 73.8 | 78.8 | .075 | — | 82.4 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.832
Highest 29.950 Date 17
Lowest 29.690 Date 4

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 78.8
Highest 92 Date 27
Lowest 70 Date 30
Greatest daily range 18 Date 27
Mean for this month for 39 years 78.8
Maximum for this month for 39 years 95
Minimum for this month for 39 years 69
Average excess or deficiency of this month compared with a mean of 39 years 0.0

### PRECIPITATION
(Inches)

Total for this month 15.37
Greatest amount in 24 hours 4.76 Date 8-9
Average for this month for 47 years 8.37
Total from January 1, 1944 to date 28.10
Average from January 1 to date 21.50
Accumulated excess or deficiency from January 1 to date compared with average +6.60

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.79 | 1917 7.35 | 1928 8.78 | 1939 12.65 |
| 1907 12.64 | 1918 5.20 | 1929 9.34 | 1940 6.03 |
| 1908 4.28 | 1919 8.93 | 1930 2.50 | 1941 5.96 |
| 1909 7.90 | 1920 4.83 | 1931 7.81 | 1942 5.59 |
| 1910 8.82 | 1921 7.86 | 1932 7.23 | 1943 10.75 |
| 1911 3.40 | 1922 7.92 | 1933 14.36 | 1944 15.37 |
| 1912 5.80 | 1923 5.59 | 1934 10.85 | 1945 |
| 1913 8.15 | 1924 8.41 | 1935 7.54 | 1946 |
| 1914 7.28 | 1925 18.34 | 1936 9.12 | 1947 |
| 1915 2.85 | 1926 12.33 | 1937 7.44 | 1948 |
| 1916 4.39 | 1927 10.83 | 1938 9.49 | 1949 |

### WIND

Prevailing direction South
Total movement 3432 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity for five minutes 22 miles per hour from S. on 15

### MISCELLANEOUS

Total evaporation for this month 2246 inches
Average daily evaporation .075 inches
Relative humidity, bihourly mean, percent 87.6
Sunshine, percentage of possible 36
Number of days clear 0 Partly cloudy 13 Cloudy 17
Number of days with .01 inch rain or more 17

### DATES

Fogs, light 24th
Fogs, dense none
Halos, lunar none
Thunderstorms 1, 5, 6, 9, 17, 27, 28 & 29
Earthquakes none felt

66-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month JULY, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 74 | 79.7 | .031 | 0 | 83.0 | cldy |
| 2 | 89 | 75 | 80.4 | .087 | 0 | 83.3 | clear |
| 3 | 87 | 75 | 79.8 | .095 | .01 | 82.6 | cldy |
| 4 | 90 | 75 | 79.6 | .074 | .56 | 82.6 | cldy |
| 5 | 86 | 94 | 79.2 | .063 | .18 | 82.1 | cldy |
| 6 | 87 | 73 | 77.3 | .059 | 2.85 | 81.9 | pt.cldy |
| 7 | 83 | 72 | 76.9 | .083 | .04 | 80.7 | cldy |
| 8 | 90 | 74 | 79.5 | .047 | .25 | 81.3 | Pt.cldy |
| 9 | 88 | 74 | 79.8 | .107 | 0 | 82.0 | cldy |
| 10 | 84 | 75 | 78.8 | .078 | .04 | 82.0 | cldy |
| 11 | 90 | 77 | 81.7 | .051 | 0 | 82.0 | Pt.cldy |
| 12 | 92 | 75 | 82.3 | .095 | 0 | 82.2 | Pt.cldy |
| 13 | 90 | 76 | 81.0 | .110 | T | 82.8 | Pt. cldy |
| 14 | 90 | 75 | 79.6 | .103 | .03 | 82.8 | Pt. Cldy |
| 15 | 88 | 73 | 78.6 | .086 | .01 | 82.3 | cldy |
| 16 | 87 | 74 | 78.8 | .051 | 0 | 83.0 | pt. cldy |
| 17 | 85 | 74 | 77.3 | .079 | .02 | 83.0 | cldy |
| 18 | 89 | 74 | 80.9 | .039 | T | 82.9 | pt.cldy |
| 19 | 92 | 75 | 82.5 | .087 | T | 82.6 | pt.cldy |
| 20 | 84 | 72 | 78.3 | .106 | .07 | 82.0 | cldy |
| 21 | 88 | 74 | 80.9 | .056 | .20 | 82.2 | Pt.cldy |
| 22 | 90 | 74 | 80.3 | .126 | T | 82.5 | pt.cldy |
| 23 | 87 | 75 | 80.5 | .094 | 0 | 82.3 | pt.cldy |
| 24 | 88 | 75 | 79.2 | .079 | .57 | 83.7 | pt.cldy |
| 25 | 85 | 74 | 76.2 | .063 | 0 | 83.8 | cldy |
| 26 | 85 | 72 | 76.0 | .126 | 0 | 83.0 | cldy |
| 27 | 88 | 73 | 80.2 | .039 | T | 82.8 | pt.cldy |
| 28 | 89 | 75 | 81.3 | .055 | 0 | 84.2 | pt.cldy |
| 29 | 86 | 74 | 79.8 | .083 | 0 | 83.8 | pt.cldy |
| 30 | 88 | 74 | 79.2 | .075 | 0 | 83.3 | pt.cldy |
| 31 | 90 | 74 | 80.9 | .098 | .02 | 83.3 | pt.cldy |
| | 2721 | 2300 | | 2425 | 4.85 | | |
| Mean | 87.8 | 74.2 | 79.7 | .078 | | 82.7 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.850
Highest 29.950 Date 7
Lowest 29.730 Date 31

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean Bi-Hi 79.7
Highest 92 Date 19
Lowest 72 Date 26
Greatest daily range 17 Date 12
Mean for this month for 39 years 78.9
Maximum for this month for 39 years 95
Minimum for this month for 39 years 67
Average excess or deficiency of this month compared with a mean of 39 years +0.8

### PRECIPITATION
(Inches)

Total for this month 4.85
Greatest amount in 24 hours 2.89 Date 6 & 7
Average for this month for 48 years 7.10
Total from January 1, 1944 to date 32.95
Average from January 1 to date 28.60
Accumulated excess or deficiency from January 1 to date compared with average +4.35

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 8.98 | 1917 10.17 | 1928 7.91 | 1939 5.06 |
| 1907 4.28 | 1918 5.13 | 1929 5.22 | 1940 6.23 |
| 1908 6.83 | 1919 4.75 | 1930 4.04 | 1941 6.05 |
| 1909 9.01 | 1920 6.18 | 1931 10.48 | 1942 6.22 |
| 1910 9.26 | 1921 8.07 | 1932 6.29 | 1943 6.49 |
| 1911 5.78 | 1922 5.08 | 1933 6.01 | 1944 4.85 |
| 1912 10.25 | 1923 3.15 | 1934 5.39 | 1945 |
| 1913 4.85 | 1924 5.97 | 1935 13.16 | 1946 |
| 1914 4.32 | 1925 3.83 | 1936 5.94 | 1947 |
| 1915 6.93 | 1926 9.93 | 1937 6.57 | 1948 |
| 1916 10.13 | 1927 8.22 | 1938 7.52 | 1949 |

### WIND

Prevailing direction NW
Total movement 3240 miles
Average hourly velocity 4.4 miles per hour
Maximum velocity for five minutes 20 miles per hour from N on 14

### MISCELLANEOUS

Total evaporation for this month 2.425 inches
Average daily evaporation .078 inches
Relative humidity, bihourly mean, percent 86.9
Sunshine, percentage of possible 36
Number of days clear 1 Partly cloudy 18 Cloudy 12
Number of days with .01 inch rain or more 14

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 4,5,8,12,13,14,22,27,28
Earthquakes None felt

Note — indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month AUGUST, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bi-Hrly | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 75 | 81.3 | .075 | .01 | 83.6 | Pt.Cldy |
| 2 | 88 | 75 | 78.6 | .106 | 0 | 83.2 | Pt.Cldy |
| 3 | 87 | 74 | 79.2 | .052 | 0 | 83.0 | Pt.Cldy |
| 4 | 89 | 74 | 79.8 | .059 | .10 | 83.0 | Cloudy |
| 5 | 90 | 73 | 79.4 | .078 | .78 | 83.0 | Cloudy |
| 6 | 87 | 73 | 76.6 | .059 | .40 | 82.2 | Cloudy |
| 7 | 83 | 73 | 77.2 | .079 | .44 | 81.9 | Cloudy |
| 8 | 89 | 73 | 78.0 | .059 | 1.14 | 82.2 | Cloudy |
| 9 | 85 | 73 | 77.9 | .059 | .04 | 81.1 | Cloudy |
| 10 | 84 | 72 | 76.8 | .059 | .53 | 80.9 | Cloudy |
| 11 | 83 | 72 | 76.6 | .079 | .67 | 80.2 | Cloudy |
| 12 | 85 | 73 | 78.3 | .059 | .01 | 80.0 | Cloudy |
| 13 | 90 | 73 | 77.6 | .051 | 1.40 | 80.4 | Pt.Cldy |
| 14 | 87 | 73 | 77.5 | .067 | 0 | 80.0 | Cloudy |
| 15 | 84 | 75 | 77.9 | .039 | .01 | 79.8 | Cloudy |
| 16 | 86 | 74 | 79.2 | .039 | .25 | 81.5 | Cloudy |
| 17 | 90 | 74 | 80.4 | .059 | .12 | 81.7 | Pt.Cldy |
| 18 | 88 | 74 | 80.1 | .079 | 0 | 82.2 | Pt.Cldy |
| 19 | 87 | 75 | 78.9 | .099 | .10 | 82.0 | Cloudy |
| 20 | 89 | 75 | 80.8 | .106 | 0 | 81.8 | Pt.Cldy |
| 21 | 90 | 74 | 79.1 | .071 | .89 | 82.2 | Cloudy |
| 22 | 86 | 72 | 77.8 | .079 | .32 | 82.0 | Cloudy |
| 23 | 86 | 71 | 77.8 | .078 | .01 | 81.9 | Pt.Cldy |
| 24 | 86 | 72 | 77.7 | .059 | 0 | 82.2 | Pt.Cldy |
| 25 | 90 | 71 | 79.8 | .079 | .01 | 82.5 | Pt.Cldy |
| 26 | 91 | 74 | 81.0 | .098 | .11 | 83.2 | Pt.Cldy |
| 27 | 90 | 74 | 77.5 | .119 | .25 | 82.8 | Cloudy |
| 28 | 82 | 71 | 74.9 | .098 | 5.32 | 80.8 | Cloudy |
| 29 | 89 | 71 | 79.0 | .039 | 0 | 80.6 | Pt.Cldy |
| 30 | 89 | 73 | 77.5 | .059 | 0 | 82.7 | Pt.Cldy |
| 31 | 79 | 72 | 75.7 | .118 | 1.56 | 81.4 | Cloudy |
| | 2698 | 2268 | - | 2.259 | 14.47 | | |
| Mean | 87.0 | 73.2 | 78.4 | .073 | - | 81.8 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.835
Highest 29.930 Date 12
Lowest 29.700 Date 17

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean Bi-H. 78.4
Highest 91 Date 26
Lowest 71 Date 23
Greatest daily range 19 Date 25
Mean for this month for 39 years 78.7
Maximum for this month for 39 years 94
Minimum for this month for 39 years 68
Average ~~excess or~~ deficiency of this month compared with a mean of 39 years -0.3

### PRECIPITATION
(Inches)

Total for this month 14.47
Greatest amount in 24 hours 5.35 Date 27 & 28
Average for this month for 48 years 7.85
Total from January 1, 1944 to date 47.42
Average from January 1 to date 36.45
Accumulated excess or deficiency from January 1 to date compared with average +10.97

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.44 | 1917 7.42 | 1928 6.87 | 1939 5.12 |
| 1907 7.46 | 1918 3.84 | 1929 11.96 | 1940 4.59 |
| 1908 11.48 | 1919 5.82 | 1930 4.34 | 1941 11.65 |
| 1909 6.84 | 1920 12.22 | 1931 4.28 | 1942 5.40 |
| 1910 12.00 | 1921 9.51 | 1932 7.61 | 1943 6.50 |
| 1911 7.21 | 1922 1.46 | 1933 6.55 | 1944 14.47 |
| 1912 6.33 | 1923 5.37 | 1934 4.52 | 1945 |
| 1913 8.20 | 1924 14.46 | 1935 11.41 | 1946 |
| 1914 6.09 | 1925 10.83 | 1936 6.14 | 1947 |
| 1915 15.24 | 1926 10.45 | 1937 3.80 | 1948 |
| 1916 10.53 | 1927 7.76 | 1938 11.82 | 1949 |

### WIND

Prevailing direction NW
Total movement 3581 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity for five minutes 28 miles per hour from S on 22

### MISCELLANEOUS

Total evaporation for this month 2.259 inches
Average daily evaporation .073 inches
Relative humidity, bihourly mean, percent 87.6
Sunshine, percentage of possible 25
Number of days clear 0 Partly cloudy 13 Cloudy 18
Number of days with .01 inch rain or more 23

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 8,11,16,19,21,24,25,28,30
Earthquakes None felt

Note — indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month September, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 73 | 77.8 | .048 | .13 | 82.1 | pt.cldy |
| 2 | 84 | 73 | 77.3 | .071 | .10 | 81.8 | cldy |
| 3 | 89 | 72 | 79.3 | .039 | 0 | 81.6 | pt.cldy |
| 4 | 90 | 73 | 78.1 | .079 | .08 | 82.5 | pt.cldy |
| 5 | 84 | 72 | 77.3 | .118 | .01 | 82.4 | pt.cldy |
| 6 | 87 | 73 | 79.7 | .059 | .0 | 83.0 | pt.cldy |
| 7 | 88 | 72 | 763 | .118 | .79 | 83.1 | cldy |
| 8 | 86 | 72 | 75.9 | .079 | 1.44 | 82.2 | cldy |
| 9 | 86 | 72 | 76.8 | .059 | .60 | 82.4 | cldy |
| 10 | 78 | 72 | 74.8 | .039 | .37 | 80.8 | cldy |
| 11 | 87 | 70 | 77.8 | .059 | 0 | 80.9 | pt.cldy |
| 12 | 88 | 72 | 79.0 | .079 | .06 | 81.5 | pt.cldy |
| 13 | 88 | 72 | 80.3 | .079 | T | 81.5 | pt.cldy |
| 14 | 87 | 74 | 79.4 | .118 | .68 | 81.0 | pt.cldy |
| 15 | 87 | 74 | 77.4 | .078 | .60 | 81.0 | cldy |
| 16 | 85 | 72 | 77.2 | .079 | .02 | 81.2 | cldy |
| 17 | 88 | 72 | 79.8 | .071 | T | 82.6 | clear |
| 18 | 86 | 73 | 78.4 | .102 | .31 | 83.1 | cldy |
| 19 | 88 | 71 | 79.5 | .103 | 0 | 83.5 | pt.cldy |
| 20 | 81 | 74 | 78.0 | .059 | .05 | 82.8 | cldy |
| 21 | 86 | 76 | 80.4 | .059 | .14 | 82.9 | cldy |
| 22 | 87 | 75 | 80.3 | .079 | .0 | 83.5 | cldy |
| 23 | 89 | 72 | 79.3 | .078 | .05 | 83.6 | pt.cldy |
| 24 | 87 | 73 | 77.5 | .118 | .10 | 83.6 | pt.cldy |
| 25 | 88 | 71 | 78.1 | .079 | T | 843 | pt.cldy |
| 26 | 89 | 72 | 78.9 | .099 | 0 | 847 | pt.cldy |
| 27 | 88 | 74 | 79.3 | .094 | T | 840 | pt.cldy |
| 28 | 87 | 75 | 79.1 | .099 | .54 | 83.2 | cldy |
| 29 | 81 | 74 | 76.2 | .027 | .01 | 83.0 | cldy |
| 30 | 87 | 73 | 79.2 | .071 | 0 | 82.2 | pt.cldy |
| 31 | | | | | | | |
| | 2591 | 2183 | | 2.339 | 6.08 | | |
| Mean | 86.4 | 72.8 | 78.3 | .078 | | 82.6 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.847
Highest 29.940 Date 10
Lowest 29.730 Date 28

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-Hourly) 78.3
Highest 90 Date 4
Lowest 70 Date 11
Greatest daily range 17 Date 26
Mean for this month for 39 years 78.5
Maximum for this month for 39 years 94
Minimum for this month for 39 years 68
Average excess or deficiency of this month compared with a mean of 39 years -0.2

### PRECIPITATION
(Inches)

Total for this month 6.08
Greatest amount in 24 hours 1.97 Date 7 & 8
Average for this month for 48 years 8.23
Total from January 1, 19__ to date 53.50
Average from January 1 to date 44.68
Accumulated excess or deficiency from January 1 to date compared with average +8.82

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.89 | 1917 11.53 | 1928 10.44 | 1939 8.12 |
| 1907 11.14 | 1918 7.03 | 1929 9.26 | 1940 13.99 |
| 1908 5.93 | 1919 10.84 | 1930 7.61 | 1941 8.01 |
| 1909 3.86 | 1920 9.14 | 1931 11.09 | 1942 8.11 |
| 1910 4.84 | 1921 3.27 | 1932 7.23 | 1943 7.88 |
| 1911 6.03 | 1922 8.18 | 1933 5.18 | 1944 6.08 |
| 1912 8.38 | 1923 4.60 | 1934 16.38 | 1945 |
| 1913 11.43 | 1924 12.55 | 1935 4.70 | 1946 |
| 1914 9.60 | 1925 9.01 | 1936 8.62 | 1947 |
| 1915 3.69 | 1926 8.41 | 1937 10.89 | 1948 |
| 1916 8.02 | 1927 6.53 | 1938 8.23 | 1949 |

### WIND

Prevailing direction S
Total movement 3365 miles
Average hourly velocity 4.7 miles per hour
Maximum velocity for five minutes 19 miles per hour from NW on 9

### MISCELLANEOUS

Total evaporation for this month 2.339 inches
Average daily evaporation .078 inches
Relative humidity, bihourly mean, percent 87.2
Sunshine, percentage of possible 46
Number of days clear 1 Partly cloudy 16 Cloudy 13
Number of days with .01 inch rain or more 19

### DATES

Fogs, light None
Fogs, dense 9th
Halos, lunar None
Thunderstorms 4,7,8,15
Earthquakes None felt

Note.—T indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month October, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bihourly Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 74 | 80.0 | .067 | 0 | 82.2 | PtCldy |
| 2 | 91 | 75 | 79.8 | .079 | T | 82.3 | PtCldy |
| 3 | 88 | 74 | 78.8 | .118 | .23 | 82.5 | Cldy |
| 4 | 86 | 72 | 78.2 | .079 | 1.22 | 82.0 | PtCldy |
| 5 | 88 | 73 | 77.9 | .078 | .02 | 82.4 | PtCldy |
| 6 | 89 | 73 | 79.2 | .079 | .01 | 83.3 | PtCldy |
| 7 | 88 | 75 | 80.2 | .079 | 0 | 84.2 | PtCldy |
| 8 | 85 | 71 | 76.4 | .157 | .06 | 83.8 | Cldy |
| 9 | 87 | 71 | 76.5 | .099 | 1.58 | 83.9 | PtCldy |
| 10 | 82 | 72 | 74.2 | .059 | .86 | 83.6 | Cldy |
| 11 | 82 | 71 | 74.8 | .066 | .55 | 81.9 | Cldy |
| 12 | 83 | 72 | 75.7 | .032 | 0 | 81.0 | Cldy |
| 13 | 84 | 72 | 75.4 | .047 | .37 | 81.0 | Cldy |
| 14 | 84 | 70 | 74.1 | .032 | 1.65 | 80.3 | Cldy |
| 15 | 80 | 72 | 75.9 | .043 | 1.40 | 80.2 | Cldy |
| 16 | 84 | 73 | 77.5 | .016 | .12 | 79.9 | Cldy |
| 17 | 85 | 73 | 77.6 | .079 | 1.51 | 79.6 | Cldy |
| 18 | 86 | 73 | 78.0 | .078 | .01 | 79.9 | Cldy |
| 19 | 86 | 73 | 78.2 | .126 | .18 | 80.0 | PtCldy |
| 20 | 87 | 72 | 77.3 | .071 | .26 | 80.0 | Cldy |
| 21 | 88 | 73 | 78.1 | .059 | .03 | 80.6 | PtCldy |
| 22 | 87 | 73 | 78.2 | .099 | 0 | 80.0 | PtCldy |
| 23 | 84 | 72 | 77.0 | .118 | .09 | 80.8 | Cldy |
| 24 | 84 | 72 | 77.2 | .055 | .05 | 81.0 | PtCldy |
| 25 | 81 | 73 | 76.8 | .079 | .02 | 81.0 | Cldy |
| 26 | 86 | 71 | 77.8 | .118 | T | 81.5 | PtCldy |
| 27 | 83 | 72 | 75.8 | .079 | 0 | 81.0 | Cldy |
| 28 | 83 | 71 | 74.6 | .138 | .09 | 80.2 | Cldy |
| 29 | 87 | 70 | 75.6 | .039 | .23 | 80.1 | Cldy |
| 30 | 82 | 71 | 75.0 | .075 | .55 | 79.8 | Cldy |
| 31 | 84 | 72 | 75.8 | .040 | .20 | 79.1 | Cldy |
| Sum | 2642 | 2241 | - | 2.383 | 11.29 | - | |
| Mean | 85.2 | 72.3 | 77.0 | .077 | - | 81.3 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.825
Highest 29.930 Date 15
Lowest 29.700 Date 3

### TEMPERATURE
(Degrees Fahrenheit)

Bi-Hourly
Monthly mean (Bi-H.) 77.0
Highest 91 Date 2
Lowest 70 Date 14
Greatest daily range 17 Date 29
Mean for this month for 39 years 77.9
Maximum for this month for 39 years 95
Minimum for this month for 39 years 68
Average excess or deficiency of this month compared with a mean of 39 years - 0.9

### PRECIPITATION
(Inches)

Total for this month 11.29
Greatest amount in 24 hours 3.03 Date 14-15
Average for this month for 48 years 10-14
Total from January 1, 1944 to date 64.79
Average from January 1 to date 54.82
Accumulated excess or deficiency from January 1 to date compared with average + 9.97

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.35 | 1917 6.14 | 1928 10.70 | 1939 12.93 |
| 1907 9.26 | 1918 9.16 | 1929 7.89 | 1940 6.43 |
| 1908 8.79 | 1919 12.11 | 1930 8.24 | 1941 12.74 |
| 1909 8.77 | 1920 6.48 | 1931 9.26 | 1942 7.99 |
| 1910 8.86 | 1921 13.86 | 1932 11.60 | 1943 10.27 |
| 1911 10.90 | 1922 9.03 | 1933 5.88 | 1944 11.29 |
| 1912 17.89 | 1923 15.02 | 1934 11.44 | 1945 |
| 1913 8.30 | 1924 10.38 | 1935 10.73 | 1946 |
| 1914 6.44 | 1925 7.37 | 1936 9.48 | 1947 |
| 1915 10.49 | 1926 9.93 | 1937 9.13 | 1948 |
| 1916 10.17 | 1927 8.36 | 1938 12.72 | 1949 |

### WIND

Prevailing direction Northwest
Total movement 4030 miles
Average hourly velocity 5.4 miles per hour
Maximum velocity for five minutes 25 miles per hour from NW on 22

### MISCELLANEOUS

Total evaporation for this month 2.383 inches
Average daily evaporation .077 inches
Relative humidity, bihourly mean, percent 89.8
Sunshine, percentage of possible 36
Number of days clear 0 Partly cloudy 12 Cloudy 19
Number of days with .01 inch rain or more 24

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar 9, 10, 14
Thunderstorms
Earthquakes
None felt

Note — T indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month NOVEMBER, 1944

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | 81 HR Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 81 | 73 | 75.3 | .043 | .28 | 79.0 | Cldy |
| 2 | 84 | 73 | 77.9 | .067 | 0 | 79.8 | Cldy |
| 3 | 85 | 74 | 78.7 | .071 | .11 | 80.0 | Pt Cldy |
| 4 | 86 | 73 | 78.9 | .079 | T | 80.5 | Pt Cldy |
| 5 | 85 | 72 | 76.9 | .067 | .61 | 80.2 | Cldy |
| 6 | 85 | 74 | 78.3 | .118 | .01 | 80.8 | Pt Cldy |
| 7 | 88 | 75 | 79.9 | .074 | .12 | 81.6 | Pt Cldy |
| 8 | 87 | 74 | 77.8 | .087 | .66 | 81.0 | Cldy |
| 9 | 79 | 73 | 75.9 | 059 | .55 | 81.0 | Cldy |
| 10 | 84 | 73 | 77.0 | 040 | 1.71 | 79.2 | Cldy |
| 11 | 88 | 73 | 77.1 | 079 | 1.26 | 79.6 | Cldy |
| 12 | 86 | 72 | 77.5 | .118 | .12 | 79.6 | Pt Cldy |
| 13 | 84 | 73 | 76.2 | .114 | .64 | 80.0 | Cldy |
| 14 | 83 | 71 | 75.4 | .059 | .07 | 79.7 | Cldy |
| 15 | 87 | 70 | 76.0 | .071 | .13 | 79.0 | Cldy |
| 16 | 84 | 72 | 76.8 | .094 | .53 | 79.2 | Cldy |
| 17 | 86 | 73 | 78.4 | .063 | .01 | 79.5 | Pt Cldy |
| 18 | 87 | 72 | 78.3 | .103 | 0 | 80.0 | Pt Cldy |
| 19 | 86 | 73 | 76.8 | .140 | .32 | 80.4 | Pt Cldy |
| 20 | 86 | 71 | 77.8 | .090 | .23 | 80.2 | Pt Cldy |
| 21 | 89 | 72 | 79.0 | .071 | 0 | 80.0 | Pt Cldy |
| 22 | 90 | 74 | 79.9 | .138 | .05 | 80.4 | Pt Cldy |
| 23 | 89 | 75 | 80.0 | .098 | .27 | 80.2 | Pt Cldy |
| 24 | 87 | 75 | 80.7 | .078 | 0 | 80.2 | Pt Cldy |
| 25 | 89 | 76 | 81.2 | .099 | .08 | 80.2 | Cldy |
| 26 | 91 | 75 | 81.6 | .086 | 0 | 80.7 | Pt Cldy |
| 27 | 86 | 75 | 79.3 | .130 | T | 80.7 | Cldy |
| 28 | 84 | 74 | 79.1 | .079 | 0 | 80.2 | Pt Cldy |
| 29 | 87 | 75 | 78.9 | .059 | T | 80.0 | Pt Cldy |
| 30 | 88 | 74 | 80.1 | .079 | T | 80.0 | Pt Cldy |
| 31 | | | | | | | |
| Total | 2581 | 2199 | - | 2.553 | 7.76 | - | |
| Mean | 86.0 | 73.3 | 78.2 | .085 | - | 80.1 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.812
Highest 29.970 Date 19
Lowest 29.690 Date 25

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 78.2
Highest 91 Date 26
Lowest 70 Date 15
Greatest daily range 17 Date 21
Mean for this month for 39 years 77.6
Maximum for this month for 39 years 94
Minimum for this month for 39 years 67
Average excess or deficiency of this month compared with a mean of 39 years + 0.6

### PRECIPITATION
(Inches)

Total for this month 7.76
Greatest amount in 24 hours 2.21 Date 9 & 10
Average for this month for 48 years 10-15
Total from January 1, 1944 to date 72.55
Average from January 1 to date 64.97
Accumulated excess or deficiency from January 1 to date compared with average + 7.58

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 13.57 | 1917 | 13.77 | 1928 | 20.51 | 1939 | 6.55 |
| 1907 | 10.51 | 1918 | 9.61 | 1929 | 12.62 | 1940 | 5.35 |
| 1908 | 9.12 | 1919 | 4.97 | 1930 | 5.12 | 1941 | 7.53 |
| 1909 | 13.14 | 1920 | 19.22 | 1931 | 12.60 | 1942 | 8.41 |
| 1910 | 4.29 | 1921 | 7.11 | 1932 | 10.18 | 1943 | 7.37 |
| 1911 | 7.57 | 1922 | 8.44 | 1933 | 13.28 | 1944 | 7.76 |
| 1912 | 6.38 | 1923 | 8.81 | 1934 | 12.89 | 1945 | |
| 1913 | 10.63 | 1924 | 12.63 | 1935 | 19.70 | 1946 | |
| 1914 | 10.35 | 1925 | 3.52 | 1936 | 8.29 | 1947 | |
| 1915 | 7.05 | 1926 | 9.63 | 1937 | 10.18 | 1948 | |
| 1916 | 8.77 | 1927 | 5.82 | 1938 | 11.23 | 1949 | |

### WIND

Prevailing direction NW
Total movement 3712 miles
Average hourly velocity 5.2 miles per hour
Maximum velocity for five minutes 20 miles per hour from NW on 6

### MISCELLANEOUS

Total evaporation for this month 2.553 inches
Average daily evaporation .085 inches
Relative humidity, bihourly mean, percent 87.6
Sunshine, percentage of possible 47
Number of days clear 0 Partly cloudy 17 Cloudy 13
Number of days with .01 inch rain or more 20

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 8, 9, 11, 13, 17
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

# THE PANAMA CANAL

MR 99476 —Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month December, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-Hr. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 74 | 80.7 | .098 | T | 80.0 | Pt cldy |
| 2 | 89 | 75 | 81.1 | .138 | .01 | 80.0 | Pt cldy |
| 3 | 88 | 74 | 79.8 | .138 | .02 | 80.5 | Pt cldy |
| 4 | 90 | 73 | 79.7 | .177 | 0 | 81.0 | Clear |
| 5 | 87 | 72 | 78.8 | .157 | .22 | 81.0 | Pt cldy |
| 6 | 90 | 73 | 79.7 | .280 | .01 | 81.2 | Pt cldy |
| 7 | 87 | 73 | 78.3 | .118 | .52 | 82.2 | Pt cldy |
| 8 | 90 | 74 | 80.5 | .079 | 0 | 82.0 | Pt cldy |
| 9 | 88 | 74 | 79.0 | .145 | T | 81.2 | Pt cldy |
| 10 | 86 | 74 | 78.3 | .166 | .14 | 81.0 | Cldy |
| 11 | 89 | 74 | 79.4 | .075 | .26 | 81.0 | Pt cldy |
| 12 | 87 | 75 | 79.2 | .118 | .13 | 81.6 | Pt cldy |
| 13 | 82 | 74 | 76.6 | .071 | .30 | 80.4 | Cldy |
| 14 | 78 | 74 | 74.9 | .063 | 1.15 | 80.0 | Cldy |
| 15 | 87 | 72 | 77.0 | .044 | .03 | 80.2 | Pt cldy |
| 16 | 89 | 73 | 79.5 | .122 | T | 79.5 | Pt cldy |
| 17 | 89 | 74 | 79.6 | .098 | .02 | 79.4 | Pt cldy |
| 18 | 90 | 73 | 80.2 | .087 | T | 80.1 | Clear |
| 19 | 88 | 73 | 79.2 | .118 | T | 80.0 | Pt cldy |
| 20 | 88 | 73 | 79.0 | .118 | T | 80.0 | Pt cldy |
| 21 | 90 | 74 | 79.8 | .098 | .04 | 80.8 | Pt cldy |
| 22 | 87 | 75 | 79.4 | .099 | .03 | 81.0 | Pt cldy |
| 23 | 86 | 75 | 78.6 | .118 | .79 | 81.0 | Pt cldy |
| 24 | 88 | 74 | 79.3 | .059 | .01 | 81.4 | Pt cldy |
| 25 | 88 | 73 | 78.7 | .079 | 0 | 81.0 | Pt cldy |
| 26 | 88 | 73 | 78.9 | .137 | 0 | 80.2 | Pt cldy |
| 27 | 88 | 73 | 78.5 | .276 | T | 79.8 | Pt cldy |
| 28 | 84 | 71 | 75.5 | .138 | .24 | 79.8 | Pt cldy |
| 29 | 88 | 71 | 77.2 | .098 | .06 | 80.0 | Pt cldy |
| 30 | 85 | 71 | 77.2 | .079 | .09 | 80.0 | Pt cldy |
| 31 | 89 | 72 | 78.8 | .079 | .03 | 80.6 | Pt cldy |
| Total | 2712 | 2278 | | 3.670 | 4.10 | - | |
| Mean | 87.5 | 73.3 | 78.8 | .118 | - | 80.6 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.819
Highest 29.960 Date 14
Lowest 29.680 Date 5

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 78.8
Highest 90 Date 8
Lowest 71 Date 29
Greatest daily range 17 Date 6
Mean for this month for 39 years 78.3
Maximum for this month for 39 years 94
Minimum for this month for 39 years 66
Average excess ~~XXXXXX~~ of this month compared with a mean of 39 years +0.5

### PRECIPITATION
(Inches)

Total for this month 4.10
Greatest amount in 24 hours 1.15 Date 14
Average for this month for 48 years 4.79
Total from January 1, 1944 to date 76.65
Average from January 1 to date 69.76
Accumulated excess ~~XXXXXX~~ from January 1 to date compared with average +6.89

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 5.52 | 1917 4.09 | 1928 6.95 | 1939 6.23 |
| 1907 3.46 | 1918 .55 | 1929 4.17 | 1940 .20 |
| 1908 4.16 | 1919 1.81 | 1930 2.44 | 1941 5.40 |
| 1909 12.39 | 1920 1.94 | 1931 4.96 | 1942 11.23 |
| 1910 10.63 | 1921 5.19 | 1932 2.66 | 1943 8.53 |
| 1911 1.99 | 1922 3.82 | 1933 7.35 | 1944 |
| 1912 3.27 | 1923 3.94 | 1934 2.71 | 1945 |
| 1913 4.84 | 1924 8.31 | 1935 4.31 | 1946 |
| 1914 8.28 | 1925 1.88 | 1936 1.84 | 1947 |
| 1915 3.60 | 1926 8.38 | 1937 16.81 | 1948 |
| 1916 5.86 | 1927 2.95 | 1938 7.91 | 1949 |

### WIND

Prevailing direction NW
Total movement 3829 miles
Average hourly velocity 5.1 miles per hour
Maximum velocity for five minutes 26 miles per hour from N on 7

### MISCELLANEOUS

Total evaporation for this month 3.670 inches
Average daily evaporation .118 inches
Relative humidity, bihourly mean, percent 84.6
Sunshine, percentage of possible 58
Number of days clear 2 Partly cloudy 26 Cloudy 3
Number of days with .01 inch rain or more 20

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, Canal Zone; Month January, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 73 | 77.5 | .078 | .26 | 80.2 | Pt.cldy |
| 2 | 88 | 73 | 77.2 | .099 | T | 80.0 | Pt.cldy |
| 3 | 88 | 73 | 79.2 | .137 | 0 | 80.8 | Pt.Cldy |
| 4 | 87 | 74 | 77.8 | .138 | T | 80.5 | Pt.cldy |
| 5 | 88 | 70 | 77.8 | .197 | 0 | 81.0 | Pt.cldy |
| 6 | 83 | 70 | 75.7 | .276 | .08 | 80.2 | Pt.cldy |
| 7 | 88 | 69 | 76.3 | .106 | 0 | 80.0 | Pt.cldy |
| 8 | 87 | 68 | 75.8 | .110 | 0 | 80.0 | Pt.cldy |
| 9 | 86 | 66 | 75.0 | .138 | 0 | 79.2 | clear |
| 10 | 87 | 70 | 76.6 | .118 | 0 | 78.8 | clear |
| 11 | 87 | 70 | 76.7 | .197 | 0 | 78.2 | clear |
| 12 | 89 | 70 | 77.5 | .275 | 0 | 77.7 | clear |
| 13 | 88 | 70 | 77.5 | .162 | 0 | 77.0 | clear |
| 14 | 86 | 69 | 76.8 | .216 | 0 | 77.0 | clear |
| 15 | 88 | 69 | 77.2 | .134 | .02 | 76.2 | Pt.cldy |
| 16 | 88 | 70 | 78.1 | .118 | 0 | 75.6 | clear |
| 17 | 89 | 72 | 78.9 | .138 | 0 | 74.7 | clear |
| 18 | 89 | 72 | 79.4 | .177 | 0 | 74.3 | pt.cldy |
| 19 | 88 | 73 | 79.3 | .137 | 0 | 75.1 | pt.cldy |
| 20 | 88 | 74 | 79.5 | .118 | 0 | 74.1 | clear |
| 21 | 87 | 75 | 80.2 | .217 | 0 | 73.5 | clear |
| 22 | 88 | 75 | 80.0 | .197 | 0 | 73.7 | pt.cldy |
| 23 | 88 | 72 | 78.2 | .216 | 0 | 73.2 | pt.cldy |
| 24 | 88 | 72 | 78.9 | .236 | T. | 72.2 | pt.cldy |
| 25 | 86 | 73 | 77.4 | .177 | .17 | 72.5 | pt.cldy |
| 26 | 87 | 73 | 77.8 | .099 | 0 | 72.3 | pt.cldy |
| 27 | 86 | 73 | 77.2 | .118 | .17 | 73.3 | pt.cldy |
| 28 | 87 | 74 | 78.9 | .079 | .05 | 74.1 | clear |
| 29 | 89 | 75 | 80.3 | .118 | 0 | 74.5 | pt.cldy |
| 30 | 88 | 75 | 79.5 | .236 | 0 | 75.5 | pt.cldy |
| 31 | 88 | 74 | 78.2 | .197 | T | 75.6 | pt.cldy |
| Total | 2710 | 2226 | - | 4.959 | 0.75 | -- | |
| Mean | 87.4 | 71.8 | 78.0 | .160 | -- | 76.5 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.879
Highest 30.037 Date 11
Lowest 29.740 Date 28

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 78.0
Highest 89 Date 29
Lowest 66 Date 9
Greatest daily range 20 Date 9
Mean for this month for 39 years 78.4
Maximum for this month for 40 years 93
Minimum for this month for 40 years 63
Average excess or deficiency of this month compared with a mean of 40 years -0.4

### PRECIPITATION
(Inches)

Total for this month 0.75
Greatest amount in 24 hours 0.26 Date 1
Average for this month for 47 years 1.04
Total from January 1, 1945 to date 0.75
Average from January 1 to date 1.04
Accumulated excess or deficiency from January 1 to date compared with average -0.29

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .43 | 1917 .13 | 1928 .02 | 1939 .43 |
| 1907 .29 | 1918 1.78 | 1929 .17 | 1940 3.14 |
| 1908 .12 | 1919 .28 | 1930 .05 | 1941 .87 |
| 1909 2.90 | 1920 .T | 1931 T | 1942 .30 |
| 1910 1.22 | 1921 .88 | 1932 .38 | 1943 1.20 |
| 1911 .83 | 1922 1.73 | 1933 1.63 | 1944 .79 |
| 1912 .T | 1923 .80 | 1934 4.04 | 1945 .75 |
| 1913 .63 | 1924 .T | 1935 .88 | 1946 |
| 1914 .32 | 1925 1.44 | 1936 .83 | 1947 |
| 1915 2.12 | 1926 .01 | 1937 5.07 | 1948 |
| 1916 1.41 | 1927 .18 | 1938 2.20 | 1949 |

### WIND

Prevailing direction NW
Total movement 6064 miles
Average hourly velocity 8.2 miles per hour
Maximum velocity for five minutes 24 miles per hour from N on 21

### MISCELLANEOUS

Total evaporation for this month 4.959 inches
Average daily evaporation .160 inches
Relative humidity, bihourly mean, percent 79.5
Sunshine, percentage of possible 61
Number of days clear 11 Partly cloudy 20 Cloudy 0
Number of days with .01 inch rain or more 6

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 0
Earthquakes 0
0

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month February, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 79.4 | .157 | 0 | 76.2 | Pt.cl'dy |
| 2 | 87 | 73 | 79.0 | .197 | 0 | 76.8 | Pt.cl'dy |
| 3 | 89 | 72 | 78.3 | .197 | 0 | 77.0 | Pt.cl'dy |
| 4 | 88 | 71 | 78.2 | .248 | 0 | 77.0 | Clear |
| 5 | 91 | 72 | 79.5 | .185 | 0 | 77.0 | Pt.cl'dy |
| 6 | 90 | 73 | 80.3 | .259 | 0 | 76.2 | Clear |
| 7 | 91 | 73 | 80.6 | .193 | 0 | 75.8 | Pt.cl'dy |
| 8 | 91 | 73 | 80.7 | .189 | 0 | 75.4 | Pt.cl'dy |
| 9 | 88 | 73 | 79.0 | .244 | .11 | 75.2 | Pt.cl'dy |
| 10 | 92 | 72 | 80.1 | .205 | 0 | 75.4 | Clear |
| 11 | 90 | 72 | 79.0 | .169 | 0 | 75.4 | Clear |
| 12 | 90 | 72 | 79.6 | .197 | 0 | 75.0 | Clear |
| 13 | 91 | 71 | 79.1 | .217 | 0 | 76.0 | Clear |
| 14 | 91 | 72 | 80.1 | .216 | 0 | 76.0 | Clear |
| 15 | 90 | 73 | 79.8 | .217 | 0 | 75.3 | Pt.cl'dy |
| 16 | 90 | 73 | 79.2 | .216 | 0 | 76.0 | Pt.cl'dy |
| 17 | 89 | 73 | 79.8 | .197 | 0 | 76.0 | Clear |
| 18 | 90 | 72 | 80.0 | .335 | 0 | 76.0 | Clear |
| 19 | 92 | 72 | 80.6 | .255 | 0 | 76.0 | Clear |
| 20 | 91 | 74 | 80.4 | .215 | 0 | 75.3 | Pt.Cldy |
| 21 | 91 | 74 | 80.5 | .201 | 0 | 74.7 | Clear |
| 22 | 90 | 72 | 80.8 | .224 | 0 | 74.1 | Pt.Cldy |
| 23 | 90 | 73 | 80.2 | .169 | T | 73.2 | Pt.Cldy |
| 24 | 91 | 72 | 79.8 | .219 | 0 | 73.0 | Clear |
| 25 | 90 | 74 | 80.2 | .165 | 0 | 72.8 | Clear |
| 26 | 91 | 73 | 80.0 | .276 | 0 | 72.7 | Clear |
| 27 | 91 | 72 | 80.4 | .197 | 0 | 73.0 | Clear |
| 28 | 92 | 74 | 80.7 | .255 | 0 | 72.2 | Clear |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| | 2527 | 2034 | | 6014 | .11 | | |
| Mean | 90.2 | 72.6 | 79.8 | .215 | | 75.2 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.860
Highest 30.010 Date 4
Lowest 29.730 Date 17

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 79.8
Highest 92 Date 19
Lowest 71 Date 4
Greatest daily range 20 Date 19
Mean for this month for 40 years 78.7
Maximum for this month for 40 years 95
Minimum for this month for 40 years 64
Average excess of this month compared with a mean of 40 years + 1.1

### PRECIPITATION
(Inches)

Total for this month .11
Greatest amount in 24 hours .11 Date 9
Average for this month for 47 years .61
Total from January 1, 19 to date .86
Average from January 1 to date 1.65
Accumulated excess or deficiency from January 1 to date compared with average -.79

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .33 | 1917 .19 | 1928 .32 | 1939 T. |
| 1907 .04 | 1918 T. | 1929 .02 | 1940 .11 |
| 1908 .24 | 1919 T. | 1930 .85 | 1941 .53 |
| 1909 2.90 | 1920 T. | 1931 T. | 1942 .44 |
| 1910 .43 | 1921 2.37 | 1932 .46 | 1943 .89 |
| 1911 2.75 | 1922 2.03 | 1933 .30 | 1944 T. |
| 1912 .08 | 1923 T. | 1934 .07 | 1945 .11 |
| 1913 .22 | 1924 .05 | 1935 .36 | 1946 |
| 1914 .02 | 1925 .07 | 1936 T | 1947 |
| 1915 2.96 | 1926 .07 | 1937 .56 | 1948 |
| 1916 1.28 | 1927 1.99 | 1938 .01 | 1949 |

### WIND

Prevailing direction NW
Total movement 6561 miles
Average hourly velocity 9.8 miles per hour
Maximum velocity for five minutes 24 miles per hour from NW on 25

### MISCELLANEOUS

Total evaporation for this month 6.014 inches
Average daily evaporation .215 inches
Relative humidity, bihourly mean, percent 73.8
Sunshine, percentage of possible 97
Number of days clear 16 Partly cloudy 12 Cloudy 0
Number of days with .01 inch rain or more 1

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month MARCH, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 73 | 80.3 | .236 | 0 | 72.2 | Clear |
| 2 | 91 | 73 | 81.2 | .236 | 0 | 72.0 | Clear |
| 3 | 90 | 77 | 81.2 | .256 | 0 | 71.8 | Pt.Cldy |
| 4 | 93 | 76 | 83.4 | .236 | 0 | 71.5 | Pt.Cldy |
| 5 | 91 | 75 | 80.8 | .217 | 0 | 71.3 | Pt.Cldy |
| 6 | 91 | 74 | 80.8 | .178 | 0 | 71.2 | Pt.Cldy |
| 7 | 92 | 74 | 81.3 | .236 | 0 | 70.9 | Clear |
| 8 | 91 | 73 | 80.2 | .287 | 0 | 70.3 | Clear |
| 9 | 91 | 73 | 80.4 | .248 | 0 | 69.8 | Clear |
| 10 | 91 | 74 | 81.4 | .221 | 0 | 69.8 | Clear |
| 11 | 91 | 74 | 80.5 | .295 | 0 | 69.6 | Pt.Cldy |
| 12 | 92 | 76 | 82.6 | .225 | 0 | 69.3 | Clear |
| 13 | 93 | 77 | 82.6 | .169 | 0 | 69.8 | Pt.Cldy |
| 14 | 92 | 75 | 82.1 | .217 | 0 | 70.0 | Pt.Cldy |
| 15 | 92 | 76 | 82.4 | .177 | 0 | 69.5 | Clear |
| 16 | 90 | 76 | 81.5 | .217 | 0 | 71.0 | Pt.Cldy |
| 17 | 92 | 76 | 81.4 | .256 | 0 | 71.4 | Pt.Cldy |
| 18 | 92 | 75 | 80.7 | .256 | 0 | 71.3 | Clear |
| 19 | 91 | 74 | 80.4 | .256 | 0 | 70.8 | Pt.Cldy |
| 20 | 93 | 74 | 81.8 | .196 | 0 | 71.0 | Pt.Cldy |
| 21 | 93 | 73 | 81.4 | .216 | 0 | 70.8 | Clear |
| 22 | 92 | 74 | 81.2 | .193 | T | 70.0 | Pt.Cldy |
| 23 | 91 | 75 | 81.1 | .142 | 0 | 69.2 | Pt.Cldy |
| 24 | 92 | 74 | 81.3 | .220 | 0 | 69.6 | Pt.Cldy |
| 25 | 93 | 75 | 82.0 | .197 | 0 | 69.8 | Pt.Cldy |
| 26 | 89 | 72 | 79.1 | .177 | 0 | 70.0 | Clear |
| 27 | 92 | 72 | 79.7 | .134 | 0 | 70.0 | Pt.Cldy |
| 28 | 92 | 71 | 80.5 | .215 | 0 | 70.0 | Pt.Cldy |
| 29 | 90 | 72 | 80.4 | .244 | 0 | 69.7 | Pt.Cldy |
| 30 | 92 | 74 | 81.0 | .201 | 0 | 70.5 | Pt.Cldy |
| 31 | 94 | 73 | 81.7 | .205 | 0 | 71.6 | Pt.Cldy |
| Total | 2839 | 2300 | - | 6.759 | T | - | |
| Mean | 91.6 | 74.2 | 81.2 | .218 | - | 70.5 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.841
Highest 29.960 Date 23
Lowest 29.720 Date 12

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 81.2
Highest 94 Date 31
Lowest 71 Date 28
Greatest daily range 21 Date 28
Mean for this month for 40 years 79.9
Maximum for this month for 40 years 97
Minimum for this month for 40 years 64
Average excess ~~or deficiency~~ of this month compared with a mean of years +1.3

### PRECIPITATION
(Inches)

Total for this month 0
Greatest amount in 24 hours 0 Date 0
Average for this month for 47 years .70
Total from January 1, 1945 to date .86
Average from January 1 to date 2.35
Accumulated ~~excess or~~ deficiency from January 1 to date compared with average -1.49

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | .05 | 1917 | .02 | 1928 | 4.07 | 1939 | T |
| 1907 | T | 1918 | 1.25 | 1929 | 2.19 | 1940 | .75 |
| 1908 | .03 | 1919 | T | 1930 | .01 | 1941 | .17 |
| 1909 | .18 | 1920 | .09 | 1931 | .70 | 1942 | 1.92 |
| 1910 | 1.83 | 1921 | 2.98 | 1932 | .13 | 1943 | 1.50 |
| 1911 | .26 | 1922 | 1.02 | 1933 | .46 | 1944 | T |
| 1912 | .01 | 1923 | T | 1934 | .20 | 1945 | 0 |
| 1913 | .43 | 1924 | .07 | 1935 | T | 1946 | |
| 1914 | T | 1925 | .07 | 1936 | .36 | 1947 | |
| 1915 | T | 1926 | 0 | 1937 | 2.44 | 1948 | |
| 1916 | .89 | 1927 | .01 | 1938 | .25 | 1949 | |

### WIND

Prevailing direction N
Total movement 7661 miles
Average hourly velocity 10.3 miles per hour
Maximum velocity for five minutes 26 miles per hour from N on 17

### MISCELLANEOUS

Total evaporation for this month 6.759 inches
Average daily evaporation .218 inches
Relative humidity, bihourly mean, percent 73.0
Sunshine, percentage of possible 83
Number of days clear 11 Partly cloudy 20 Cloudy 0
Number of days with .01 inch rain or more 0

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes 1 felt on March 17, intensity II

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month April, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-H. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 73 | 81.3 | .197 | 0 | 72.6 | Clear |
| 2 | 94 | 74 | 82.8 | .173 | 0 | 73.2 | Pt.Cldy. |
| 3 | 93 | 74 | 82.2 | .208 | 0 | 73.0 | Pt.Cldy. |
| 4 | 94 | 74 | 82.2 | .182 | 0 | 74.2 | Pt.Cldy. |
| 5 | 94 | 74 | 82.0 | 213 | 0 | 74.2 | Pt.Cldy. |
| 6 | 94 | 75 | 81.8 | .220 | T | 74.1 | Pt.Cldy. |
| 7 | 93 | 76 | 83.3 | 230 | 0 | 74.0 | Pt.Cldy. |
| 8 | 94 | 75 | 82.2 | 276 | 0 | 74.6 | Clear |
| 9 | 94 | 75 | 82.7 | 260 | 0 | 75.2 | Pt.Cldy. |
| 10 | 89 | 75 | 81.2 | 267 | 0 | 76.5 | Pt.Cldy. |
| 11 | 92 | 75 | 82.0 | 185 | 0 | 75.8 | Pt.Cldy. |
| 12 | 94 | 75 | 83.1 | 182 | 0 | 75.0 | Pt.Cldy. |
| 13 | 93 | 75 | 82.8 | 311 | 0 | 74.0 | Pt.Cldy. |
| 14 | 90 | 73 | 81.2 | 212 | T | 74.0 | Pt.Cldy. |
| 15 | 88 | 75 | 78.9 | 134 | .01 | 73.9 | Pt.Cldy. |
| 16 | 88 | 73 | 78.8 | 118 | 0 | 74.5 | Pt.Cldy. |
| 17 | 93 | 73 | 80.2 | 107 | .12 | 75.6 | Pt.Cldy. |
| 18 | 95 | 75 | 83.1 | 133 | 0 | 76.5 | Pt.Cldy. |
| 19 | 95 | 76 | 82.6 | 217 | 0 | 77.5 | Pt.Cldy. |
| 20 | 94 | 77 | 82.4 | 264 | 0 | 77.9 | Pt.Cldy. |
| 21 | 95 | 77 | 83.6 | 208 | 0 | 78.2 | Pt.Cldy. |
| 22 | 94 | 77 | 83.9 | 221 | 0 | 78.2 | Pt.Cldy. |
| 23 | 92 | 77 | 82.9 | 181 | T | 78.0 | Cldy. |
| 24 | 90 | 75 | 80.4 | 114 | .11 | 78.2 | Pt.Cldy. |
| 25 | 90 | 74 | 79.3 | 142 | 0 | 77.8 | Pt.Cldy. |
| 26 | 88 | 76 | 79.6 | 098 | 1.02 | 77.6 | Cldy. |
| 27 | 91 | 74 | 78.9 | 103 | 18 | 77.8 | Pt.Cldy. |
| 28 | 87 | 74 | 78.4 | 098 | T | 78.2 | Cldy. |
| 29 | 91 | 74 | 80.1 | 067 | 0 | 78.4 | Pt.Cldy. |
| 30 | 92 | 76 | 80.8 | 110 | .40 | 79.3 | Pt.Cldy. |
| 31 | | | | | | | |
| | 2764 | 2246 | - | 5.431 | 1.84 | - | |
| Mean | 92.1 | 849 | 81.5 | .181 | - | 75.9 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.841
Highest 29.950 Date 7
Lowest 29.720 Date 23

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 81.5
Highest 95 Date 21
Lowest 73 Date 1
Greatest daily range 20 Date 1
Mean for this month for 40 years 80.5
Maximum for this month for 40 years 97
Minimum for this month for 40 years 64
Average excess ~~or deficiency~~ of this month compared with a mean of 40 years + 1.0

### PRECIPITATION
(Inches)

Total for this month 1.84
Greatest amount in 24 hours 1.09 Date 26 & 27
Average for this month for 47 years 2.86
Total from January 1, 1945 to date 2.70
Average from January 1 to date 5.21
Accumulated ~~excess or~~ deficiency from January 1 to date compared with average -2.51

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 7.76 | 1917 2.24 | 1928 3.38 | 1939 .94 |
| 1907 T | 1918 4.52 | 1929 .43 | 1940 1.05 |
| 1908 1.37 | 1919 6.43 | 1930 6.78 | 1941 4.74 |
| 1909 2.92 | 1920 3.02 | 1931 1.45 | 1942 2.25 |
| 1910 3.71 | 1921 1.19 | 1932 7.56 | 1943 3.60 |
| 1911 6.34 | 1922 .16 | 1933 3.46 | 1944 3.59 |
| 1912 2.68 | 1923 .83 | 1934 5.09 | 1945 1.84 |
| 1913 .03 | 1924 3.72 | 1935 2.40 | 1946 |
| 1914 4.80 | 1925 2.63 | 1936 1.64 | 1947 |
| 1915 5.37 | 1926 .08 | 1937 1.32 | 1948 |
| 1916 2.84 | 1927 4.67 | 1938 1.93 | 1949 |

### WIND

Prevailing direction N
Total movement 5415 miles
Average hourly velocity 7.5 miles per hour
Maximum velocity for five minutes 25 miles per hour from N on 10

### MISCELLANEOUS

Total evaporation for this month 5.431 inches
Average daily evaporation .181 inches
Relative humidity, bihourly mean, percent 76.6
Sunshine, percentage of possible 50
Number of days clear 2 Partly cloudy 25 Cloudy 3
Number of days with .01 inch rain or more

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 17.30
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

3066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month May, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bi-Hr. | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 75 | 78.9 | .115 | .07 | 80.2 | Cloudy |
| 2 | 88 | 75 | 79.3 | .059 | .64 | 80.5 | Cloudy |
| 3 | 89 | 75 | 81.0 | .074 | 0 | 80.9 | Cloudy |
| 4 | 90 | 76 | 80.0 | .264 | 1.07 | 81.0 | Cloudy |
| 5 | 86 | 76 | 79.4 | .110 | .06 | 80.9 | Cloudy |
| 6 | 91 | 75 | 80.9 | .099 | 0 | 80.0 | pt.cldy |
| 7 | 88 | 74 | 80.3 | .173 | 0 | 79.2 | pt.cldy |
| 8 | 92 | 74 | 81.5 | .158 | 0 | 78.5 | pt.cldy |
| 9 | 92 | 75 | 82.0 | .189 | 0 | 78.2 | pt.cldy |
| 10 | 88 | 75 | 80.2 | .181 | .10 | 77.4 | pt.cldy |
| 11 | 90 | 73 | 79.7 | .141 | .78 | 77.3 | pt.cldy |
| 12 | 88 | 74 | 80.1 | .079 | .15 | 77.0 | pt.cldy |
| 13 | 87 | 74 | 79.5 | .079 | 0 | 77.2 | pt.cldy |
| 14 | 85 | 75 | 79.6 | .106 | T | 77.6 | pt.cldy |
| 15 | 86 | 76 | 80.1 | .110 | 0 | 77.2 | pt.cldy |
| 16 | 86 | 75 | 79.9 | .091 | 0 | 78.3 | pt.cldy |
| 17 | 82 | 76 | 78.1 | .114 | .01 | 79.8 | pt.cldy |
| 18 | 88 | 74 | 79.8 | .122 | 0 | 80.2 | pt.cldy |
| 19 | 82 | 76 | 76.8 | .143 | .02 | 80.0 | Cloudy |
| 20 | 85 | 73 | 78.4 | .063 | 0 | 80.0 | pt.cldy |
| 21 | 87 | 75 | 80.4 | .087 | 0 | 81.4 | pt.cldy |
| 22 | 88 | 75 | 79.4 | .079 | .02 | 81.4 | pt.cldy |
| 23 | 84 | 74 | 79.5 | .110 | 0 | 80.8 | Cloudy |
| 24 | 87 | 75 | 80.7 | .075 | 0 | 81.2 | pt.cldy |
| 25 | 86 | 77 | 79.3 | .110 | 0 | 80.7 | Cloudy |
| 26 | 86 | 73 | 77.4 | .102 | .44 | 80.8 | Cloudy |
| 27 | 85 | 75 | 79.7 | .063 | .08 | 80.0 | pt.cldy |
| 28 | 87 | 74 | 79.0 | .095 | .07 | 79.9 | Cloudy |
| 29 | 88 | 73 | 80.4 | .055 | .09 | 79.7 | pt.cldy |
| 30 | 89 | 75 | 79.9 | .110 | 0 | 81.3 | pt.cldy |
| 31 | 87 | 74 | 78.2 | .095 | .62 | 82.0 | Cloudy |
| Total | 2705 | 2316 | -- | 3.451 | 4.22 | -- | |
| Mean | 87.3 | 74.7 | 80.0 | .111 | -- | 79.7 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.859
Highest 29.945 Date 6
Lowest 29.760 Date 3

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 79.7
Highest 92 Date 9
Lowest 73 Date 11
Greatest daily range 18 Date 8
Mean for this month for 40 years 79.4
Maximum for this month for 40 years 96
Minimum for this month for 40 years 69
Average excess or deficiency of this month compared with a mean of years + .03

### PRECIPITATION
(Inches)

Total for this month 4.22
Greatest amount in 24 hours 1.13 Date 4 & 5
Average for this month for 47 years 7.96
Total from January 1, 1945 to date 6.92
Average from January 1 to date 13.17
Accumulated excess or deficiency from January 1 to date compared with average - 6.25

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 10.68 | 1917 | 5.75 | 1928 | 4.20 | 1939 | 4.61 |
| 1907 | 4.44 | 1918 | 6.75 | 1929 | 4.04 | 1940 | 7.26 |
| 1908 | 7.64 | 1919 | 5.21 | 1930 | 9.70 | 1941 | 9.03 |
| 1909 | 9.10 | 1920 | 3.31 | 1931 | 13.15 | 1942 | 12.16 |
| 1910 | 9.89 | 1921 | 8.60 | 1932 | 9.39 | 1943 | 6.68 |
| 1911 | 11.04 | 1922 | 9.80 | 1933 | 7.96 | 1944 | 8.35 |
| 1912 | 10.71 | 1923 | 5.84 | 1934 | 7.96 | 1945 | 4.22 |
| 1913 | 8.27 | 1924 | 5.51 | 1935 | 8.10 | 1946 | |
| 1914 | 6.98 | 1925 | 6.73 | 1936 | 6.36 | 1947 | |
| 1915 | 6.42 | 1926 | 4.16 | 1937 | 10.98 | 1948 | |
| 1916 | 12.59 | 1927 | 9.06 | 1938 | 12.03 | 1949 | |

### WIND

Prevailing direction N
Total movement 42.51 miles
Average hourly velocity 5.7 miles per hour
Maximum velocity for five minutes 23 miles per hour from N on 31

### MISCELLANEOUS

Total evaporation for this month 3.451 inches
Average daily evaporation .111 inches
Relative humidity, bihourly mean, percent 84.5
Sunshine, percentage of possible 17
Number of days clear 0 Partly cloudy 44 Cloudy 20
Number of days with .01 inch rain or more 11 15

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 1, 23, 27, 28, 30, 31
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

1066-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month June, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean (Bi-H.) | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 74 | 79.2 | .098 | 1.58 | 82.4 | Cldy |
| 2 | 89 | 74 | 81.4 | .055 | T | 83.2 | Pt.Cldy |
| 3 | 90 | 76 | 81.1 | .071 | .83 | 83.6 | Pt.Cldy |
| 4 | 92 | 75 | 81.7 | .094 | 0 | 84.2 | Pt.Cldy |
| 5 | 91 | 76 | 82.6 | .099 | .01 | 84.1 | Pt.Cldy |
| 6 | 91 | 77 | 83.1 | .126 | .04 | 84.3 | Cldy |
| 7 | 90 | 76 | 79.9 | .094 | 1.42 | 83.3 | Cldy |
| 8 | 90 | 76 | 81.4 | .075 | T | 83.3 | Cldy |
| 9 | 88 | 77 | 80.3 | .055 | .36 | 84.0 | Cldy |
| 10 | 86 | 75 | 79.4 | .063 | .04 | 84.0 | Cldy |
| 11 | 82 | 77 | 79.3 | .063 | 0 | 83.2 | Cldy |
| 12 | 84 | 76 | 78.9 | .059 | .03 | 83.0 | Cldy |
| 13 | 88 | 74 | 80.3 | .071 | .04 | 83.4 | Pt.Cldy |
| 14 | 91 | 76 | 82.4 | .067 | 0 | 83.8 | Pt.Cldy |
| 15 | 93 | 76 | 83.1 | .114 | 0 | 84.5 | Pt.Cldy |
| 16 | 88 | 77 | 81.6 | .099 | 0 | 85.0 | Pt.Cldy |
| 17 | 86 | 77 | 78.6 | .122 | .08 | 85.0 | Cldy |
| 18 | 87 | 74 | 80.3 | .067 | 0 | 84.8 | Pt.Cldy |
| 19 | 88 | 75 | 80.6 | .090 | .04 | 84.0 | Pt.Cldy |
| 20 | 90 | 77 | 82.8 | .027 | .01 | 84.0 | Pt.Cldy |
| 21 | 83 | 78 | 80.2 | .091 | .11 | 83.8 | Cldy |
| 22 | 84 | 75 | 80.2 | .079 | .04 | 83.7 | Cldy |
| 23 | 86 | 77 | 81.3 | .079 | .08 | 84.5 | Pt.Cldy |
| 24 | 87 | 76 | 80.6 | .086 | 0 | 84.8 | Pt.Cldy |
| 25 | 89 | 75 | 81.5 | .087 | .06 | 84.9 | Pt.Cldy |
| 26 | 93 | 77 | 82.6 | .094 | .20 | 85.0 | Pt.Cldy |
| 27 | 83 | 77 | 77.9 | .118 | 19 | 85.0 | Cldy |
| 28 | 86 | 75 | 79.7 | .071 | 01 | 84.8 | Pt.Cldy |
| 29 | 88 | 75 | 79.7 | .075 | T | 84.2 | Cldy |
| 30 | 87 | 75 | 80.5 | .079 | 0 | 83.8 | Pt.Cldy |
| 31 | | | | | | | |
| | 2636 | 2275 | -- | 2.468 | 5.17 | -- | |
| Mean | 87.9 | 75.8 | 81.7 | .082 | -- | 84.0 | |

Note. ---- indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.814
Highest 29.915 Date 24
Lowest 29.690 Date 8

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 80.7
Highest 93 Date 15
Lowest 74 Date 13
Greatest daily range 17 Date 4
Mean for this month for 40 years 78.8
Maximum for this month for 40 years 95
Minimum for this month for 40 years 69
Average excess [redacted] of this month compared with a mean of 40 years + 1.9

### PRECIPITATION
(Inches)

Total for this month 5.17
Greatest amount in 24 hours 1.58 Date 1
Average for this month for 48 years 8.31
Total from January 1, 1945 to date 12.09
Average from January 1 to date 21.48
Accumulated excess or deficiency from January 1 to date compared with average - 9.39

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.79 | 1917 7.35 | 1928 8.78 | 1939 12.65 |
| 1907 12.64 | 1918 5.20 | 1929 9.34 | 1940 6.03 |
| 1908 4.28 | 1919 8.93 | 1930 2.50 | 1941 5.96 |
| 1909 9.90 | 1920 4.83 | 1931 7.81 | 1942 5.59 |
| 1910 8.82 | 1921 7.86 | 1932 9.23 | 1943 10.75 |
| 1911 3.40 | 1922 7.92 | 1933 14.36 | 1944 15.37 |
| 1912 5.80 | 1923 5.59 | 1934 10.85 | 1945 5.17 |
| 1913 8.15 | 1924 8.41 | 1935 7.54 | 1946 |
| 1914 7.28 | 1925 18.34 | 1936 9.12 | 1947 |
| 1915 2.85 | 1926 12.33 | 1937 7.44 | 1948 |
| 1916 4.39 | 1927 10.83 | 1938 9.49 | 1949 |

### WIND

Prevailing direction N
Total movement 3470 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity for five minutes 22 miles per hour from N on 23

### MISCELLANEOUS

Total evaporation for this month 2.468 inches
Average daily evaporation .082 inches
Relative humidity, bihourly mean, percent 86.8
Sunshine, percentage of possible 25
Number of days clear 0 Partly cloudy 17 Cloudy 13
Number of days with .01 inch rain or more 19

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 1,7,9,13,14,27,29.
Earthquakes 2 felt, on June 3rd.

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS ; Month JULY , 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 79.3 | .078 | 0 | 84.0 | Pt.Cldy |
| 2 | 86 | 75 | 80.6 | .079 | .30 | 84.2 | Pt.Cldy |
| 3 | 87 | 74 | 79.2 | .059 | .02 | 84.5 | Pt.Cldy |
| 4 | 85 | 76 | 78.6 | .067 | 1.11 | 84.0 | Cldy. |
| 5 | 89 | 76 | 80.2 | .051 | .04 | 84.3 | Pt.Cldy |
| 6 | 85 | 74 | 78.9 | .083 | 0 | 83.8 | Pt.Cldy |
| 7 | 90 | 75 | 80.8 | .086 | .47 | 83.6 | Pt.Cldy |
| 8 | 92 | 75 | 82.2 | .087 | 0 | 84.0 | Pt.Cldy |
| 9 | 89 | 75 | 78.2 | .118 | 11 | 84.2 | Pt.Cldy |
| 10 | 90 | 74 | 80.4 | .098 | T | 84.1 | Pt.Cldy |
| 11 | 89 | 76 | 81.6 | .099 | 0 | 83.3 | Pt.Cldy |
| 12 | 91 | 76 | 81.0 | .098 | .44 | 83.5 | Pt.Cldy |
| 13 | 89 | 76 | 80.7 | .111 | .10 | 83.0 | Pt.Cldy |
| 14 | 86 | 75 | 77.8 | .063 | .08 | 883.2 | Cldy. |
| 15 | 86 | 73 | 77.7 | .075 | 0 | 83.6 | Cldy. |
| 16 | 86 | 74 | 77.7 | .074 | 0 | 83.8 | Cldy. |
| 17 | 92 | 74 | 80.8 | .067 | .17 | 84.2 | Pt.Cldy |
| 18 | 90 | 76 | 79.1 | .075 | .34 | 83.8 | Pt.Cldy |
| 19 | 85 | 76 | 79.8 | .059 | .01 | 83.0 | Cldy |
| 20 | 86 | 75 | 78.0 | .083 | .01 | 83.0 | Cldy |
| 21 | 84 | 75 | 77.0 | .083 | .04 | 82.8 | Cldy |
| 22 | 87 | 73 | 79.8 | .051 | T | 82.6 | Pt.Cldy |
| 23 | 88 | 75 | 78.0 | .071 | .19 | 82.9 | Cldy |
| 24 | 90 | 75 | 79.2 | .078 | .12 | 82.8 | Pt.Cldy |
| 25 | 83 | 77 | 78.8 | .075 | 0 | 82.5 | Pt.Cldy |
| 26 | 88 | 75 | 80.0 | .075 | .22 | 82.2 | Cldy |
| 27 | 87 | 75 | 77.1 | .087 | 1.32 | 82.0 | Cldy |
| 28 | 84 | 74 | 77.8 | .070 | .15 | 82.0 | Cldy |
| 29 | 88 | 75 | 79.0 | .044 | 0 | 82.0 | Cldy |
| 30 | 88 | 75 | 79.5 | .071 | 0 | 82.5 | Cldy |
| 31 | 89 | 76 | 78.7 | .071 | .65 | 83.0 | Cldy |
| Total | 2715 | 2325 | | 2.386 | 5.89 | | |
| Mean | 87.6 | 75.0 | 79.3 | .077 | | 83.3 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.835
Highest 29.920 Date 24
Lowest 29.745 Date 12

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 79.3
Highest 92 Date 17
Lowest 73 Date 15
Greatest daily range 18 Date 17
Mean for this month for 40 years 78.9
Maximum for this month for 40 years 95
Minimum for this month for 40 years 67
Average excess ~~or deficiency~~ of this month compared with a mean of 40 years 40.4

### PRECIPITATION
(Inches)

Total for this month 5.89
Greatest amount in 24 hours 1.47 Date 27 & 28
Average for this month for 49 years 7.07
Total from January 1, 1945 to date 17.98
Average from January 1 to date 28.55
Accumulated ~~excess or~~ deficiency from January 1 to date compared with average -10.57

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 8.98 | 1917 10.17 | 1928 7.91 | 1939 5.06 |
| 1907 4.28 | 1918 5.13 | 1929 5.22 | 1940 6.23 |
| 1908 6.83 | 1919 4.75 | 1930 4.04 | 1941 6.05 |
| 1909 9.01 | 1920 6.18 | 1931 10.48 | 1942 6.22 |
| 1910 9.26 | 1921 8.07 | 1932 6.29 | 1943 6.49 |
| 1911 5.78 | 1922 5.08 | 1933 6.01 | 1944 4.85 |
| 1912 10.25 | 1923 3.15 | 1934 5.39 | 1945 5.89 |
| 1913 4.85 | 1924 5.97 | 1935 13.16 | 1946 |
| 1914 4.32 | 1925 3.83 | 1936 5.94 | 1947 |
| 1915 6.93 | 1926 9.93 | 1937 6.57 | 1948 |
| 1916 10.13 | 1927 8.22 | 1938 7.52 | 1949 |

### WIND

Prevailing direction NW
Total movement 3855 miles
Average hourly velocity 5.2 miles per hour
Maximum velocity for five minutes 26 miles per hour from S on 14

### MISCELLANEOUS

Total evaporation for this month 2.386 inches
Average daily evaporation .077 inches
Relative humidity, bihourly mean, percent 87.4
Sunshine, percentage of possible 31
Number of days clear 0 Partly cloudy 17 Cloudy 14
Number of days with .01 inch rain or more 20

### DATES

Fogs, light 16th
Fogs, dense None
Halos, lunar None
Thunderstorms 4, 12, 13, 14, 17, 18, 23, 24, 27, 31
Earthquakes One felt on July 5th.

Note: "T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

4066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C.Z. ; Month AUGUST, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 75 | 79.2 | .048 | .02 | 83.0 | Pt.cldy |
| 2 | 88 | 75 | 79.2 | .102 | .63 | 83.2 | Cldy |
| 3 | 85 | 76 | 77.9 | .016 | .30 | 83.2 | Cldy |
| 4 | 86 | 75 | 78.8 | .071 | .04 | 83.0 | Cldy |
| 5 | 88 | 75 | 79.9 | .047 | 0 | 82.2 | Pt.cldy |
| 6 | 87 | 74 | 79.4 | .094 | .03 | 82.8 | Pt.cldy |
| 7 | 88 | 75 | 79.9 | .083 | .01 | 82.4 | Pt.cldy |
| 8 | 88 | 75 | 78.9 | .079 | T | 82.2 | Pt.cldy |
| 9 | 87 | 74 | 79.2 | .098 | 0 | 82.8 | Pt.cldy |
| 10 | 91 | 75 | 79.8 | .067 | .31 | 83.2 | Pt.cldy |
| 11 | 86 | 76 | 78.2 | .075 | .70 | 83.8 | Cldy |
| 12 | 87 | 74 | 78.9 | .075 | .01 | 83.4 | Clear |
| 13 | 90 | 76 | 79.9 | .067 | .11 | 83.3 | Cldy |
| 14 | 88 | 77 | 81.1 | .051 | .64 | 83.0 | Cldy |
| 15 | 80 | 76 | 76.9 | .157 | .35 | 83.0 | Cldy |
| 16 | 82 | 73 | 76.4 | .059 | .03 | 83.0 | Pt.cldy |
| 17 | 85 | 74 | 78.5 | .059 | .35 | 82.2 | Pt.cldy |
| 18 | 86 | 74 | 79.0 | .059 | .06 | 82.5 | Pt.cldy |
| 19 | 86 | 74 | 78.8 | .083 | 0 | 82.2 | Pt.cldy |
| 20 | 85 | 75 | 78.4 | .055 | .03 | 82.0 | Cldy |
| 21 | 85 | 74 | 78.5 | .095 | .14 | 82.5 | Pt.cldy |
| 22 | 88 | 74 | 80.7 | .063 | 0 | 82.0 | Clear |
| 23 | 87 | 75 | 80.3 | .070 | .04 | 83.2 | Pt.clear |
| 24 | 84 | 74 | 77.8 | .123 | .25 | 83.1 | Cldy |
| 25 | 90 | 74 | 80.2 | .066 | .07 | 83.2 | Clear |
| 26 | 85 | 74 | 77.0 | .075 | .28 | 83.0 | Pt.cldy |
| 27 | 88 | 73 | 77.8 | .103 | 1.36 | 82.8 | Pt.cldy |
| 28 | 90 | 74 | 78.8 | .043 | .54 | 82.9 | Pt.cldy |
| 29 | 87 | 73 | 79.5 | .087 | T | 83.0 | Pt.cldy |
| 30 | 86 | 74 | 79.1 | .078 | 0 | 83.6 | Pt.cldy |
| 31 | 87 | 76 | 79.4 | .110 | .07 | 84.0 | Cldy |
| Total | 2687 | 2315 | - | 2.358 | 6.37 | - | |
| Mean | 86.7 | 74.7 | 78.9 | .077 | - | 82.9 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.844
Highest 29.950 Date 5
Lowest 29.730 Date 11

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 78.9
Highest 91 Date 10
Lowest 73 Date 16
Greatest daily range 16 Date 25
Mean for this month for 40 years 78.7
Maximum for this month for 40 years 94
Minimum for this month for years 68
Average excess or deficiency of this month compared with a mean of 40 years + 0.2

### PRECIPITATION
(Inches)

Total for this month 6.37
Greatest amount in 24 hours 1.58 Date 26-27
Average for this month for 49 years 7.82
Total from January 1, 1945 to date 24.35
Average from January 1 to date 36.37
Accumulated excess or deficiency from January 1 to date compared with average - 12.02

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 5.44 | 1917 7.42 | 1928 6.87 | 1939 5.12 |
| 1907 7.46 | 1918 3.84 | 1929 11.96 | 1940 4.59 |
| 1908 11.48 | 1919 5.82 | 1930 4.34 | 1941 11.65 |
| 1909 6.84 | 1920 12.22 | 1931 4.28 | 1942 5.40 |
| 1910 12.00 | 1921 9.51 | 1932 7.61 | 1943 6.50 |
| 1911 7.21 | 1922 1.46 | 1933 6.55 | 1944 14.47 |
| 1912 6.33 | 1923 5.37 | 1934 4.52 | 1945 6.37 |
| 1913 8.20 | 1924 14.46 | 1935 11.41 | 1946 |
| 1914 6.09 | 1925 10.83 | 1936 6.14 | 1947 |
| 1915 15.24 | 1926 10.45 | 1937 3.80 | 1948 |
| 1916 10.53 | 1927 7.76 | 1938 11.82 | 1949 |

### WIND

Prevailing direction W
Total movement 3,528 miles
Average hourly velocity 4.7 miles per hour
Maximum velocity for five minutes 23 miles per hour from W on 10

### MISCELLANEOUS

Total evaporation for this month 2.358 inches
Average daily evaporation .077 inches
Relative humidity, bihourly mean, percent 88.5
Sunshine, percentage of possible 48
Number of days clear 3 Partly cloudy 18 Cloudy 10
Number of days with .01 inch rain or more 24

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 1,2,3,13,24,25,27,28 and 31
Earthquakes None 'felt'

Note.—"T" indicates trace of precipitation (less than 0.01 inch). All data in 75th meridian time.

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month SEPTEMBER, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bi Hr | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 75 | 80.9 | .067 | .30 | 84.5 | Pt. Cldy |
| 2 | 88 | 74 | 80.7 | .107 | .03 | 84.4 | Clear |
| 3 | 89 | 76 | 81.8 | .078 | .03 | 84.3 | Pt. Cldy |
| 4 | 91 | 76 | 81.5 | .111 | .02 | 84.4 | Pt. Cldy |
| 5 | 86 | 76 | 78.8 | .086 | .03 | 84.3 | Cloudy |
| 6 | 88 | 75 | 77.4 | .075 | .10 | 84.2 | Cloudy |
| 7 | 86 | 74 | 76.7 | .055 | 1.88 | 83.3 | Cloudy |
| 8 | 90 | 71 | 80.4 | .083 | 0 | 83.2 | Clear |
| 9 | 89 | 75 | 81.1 | .055 | 0 | 83.9 | Pt. Cldy |
| 10 | 85 | 76 | 79.8 | .079 | .02 | 84.0 | Pt. Cldy |
| 11 | 90 | 75 | 79.2 | .070 | 0 | 84.0 | Pt. Cldy |
| 12 | 90 | 75 | 80.0 | .075 | .24 | 83.9 | Pt. Cldy |
| 13 | 91 | 75 | 81.7 | .075 | 0 | 83.8 | Pt. Cldy |
| 14 | 86 | 78 | 80.0 | .079 | .32 | 83.1 | Cloudy |
| 15 | 80 | 76 | 75.8 | .091 | .14 | 82.9 | Cloudy |
| 16 | 89 | 73 | 79.1 | .043 | .07 | 82.8 | Pt. Cldy |
| 17 | 86 | 74 | 79.8 | .071 | .01 | 83.2 | Clear |
| 18 | 89 | 75 | 80.3 | .083 | .07 | 83.4 | Pt. Cldy |
| 19 | 86 | 77 | 80.6 | .079 | 0 | 83.0 | Pt. Cldy |
| 20 | 90 | 76 | 79.0 | .063 | .11 | 83.3 | Cloudy |
| 21 | 87 | 74 | 78.6 | .086 | 0 | 83.0 | Cloudy |
| 22 | 90 | 74 | 79.3 | .087 | 0 | 83.4 | Pt. Cldy |
| 23 | 88 | 75 | 79.9 | .079 | T | 83.8 | Cloudy |
| 24 | 86 | 75 | 78.7 | .082 | .01 | 83.2 | Cloudy |
| 25 | 87 | 74 | 79.8 | .067 | .01 | 83.2 | Cloudy |
| 26 | 85 | 76 | 80.2 | .063 | .09 | 83.2 | Pt. Cldy |
| 27 | 86 | 75 | 80.0 | .071 | .22 | 83.5 | Cloudy |
| 28 | 86 | 75 | 80.0 | .118 | .32 | 83.7 | Pt. Cldy |
| 29 | 86 | 76 | 79.8 | .098 | 1.12 | 83.8 | Pt. Cldy |
| 30 | 79 | 75 | 76.6 | .083 | 0 | 83.6 | Cloudy |
| 31 | | | | | | | |
| | 2618 | 2251 | - | 2359 | 5.14 | - | |
| Mean | 87.3 | 75.0 | 79.3 | .079 | - | 83.6 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.826
Highest 29.920 Date 16
Lowest 29.710 Date 29

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 79.3
Highest 91 Date 4
Lowest 71 Date 8
Greatest daily range 16 Date 22
Mean for this month for 40 years 78.6
Maximum for this month for 40 years 94
Minimum for this month for 40 years 68
Average excess [redacted] of this month compared with a mean of 40 years + 0.7

### PRECIPITATION
(Inches)

Total for this month 5.14
Greatest amount in 24 hours 1.89 Date 6 & 7
Average for this month for 49 years 8.17
Total from January 1, 1945 to date 29.49
Average from January 1 to date 44.54
Accumulated [redacted] deficiency from January 1 to date compared with average - 15.05

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.89 | 1917 11.53 | 1928 10.44 | 1939 8.12 |
| 1907 11.14 | 1918 7.03 | 1929 9.26 | 1940 13.99 |
| 1908 5.93 | 1919 10.84 | 1930 7.61 | 1941 8.01 |
| 1909 3.86 | 1920 9.14 | 1931 11.09 | 1942 8.11 |
| 1910 4.84 | 1921 3.27 | 1932 7.23 | 1943 7.86 |
| 1911 6.03 | 1922 8.18 | 1933 5.18 | 1944 6.08 |
| 1912 8.38 | 1923 4.60 | 1934 16.38 | 1945 5.14 |
| 1913 11.43 | 1924 12.55 | 1935 4.70 | 1946 |
| 1914 9.60 | 1925 9.01 | 1936 8.62 | 1947 |
| 1915 3.69 | 1926 8.41 | 1937 10.89 | 1948 |
| 1916 8.02 | 1927 6.53 | 1938 8.23 | 1949 |

### WIND

Prevailing direction NW
Total movement 3649 miles
Average hourly velocity 5.1 miles per hour
Maximum velocity for five minutes 20 miles per hour from NW on 13

### MISCELLANEOUS

Total evaporation for this month 2.359 inches
Average daily evaporation .079 inches
Relative humidity, bihourly mean, percent 86.4
Sunshine, percentage of possible 36
Number of days clear 3 Partly cloudy 15 Cloudy 12
Number of days with .01 inch rain or more 21

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 4,5,7,14,19,20
Earthquakes One felt on the 15th

Note — [illegible] indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month October, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 74 | 77.3 | .075 | .74 | 83.0 | Cldy |
| 2 | 87 | 73 | 80.5 | .031 | 0 | 83.6 | Pt.cldy |
| 3 | 83 | 74 | 78.1 | .067 | 2.99 | 83.2 | Cldy |
| 4 | 85 | 74 | 78.8 | .083 | .42 | 81.9 | Pt.cldy |
| 5 | 80 | 74 | 76.6 | .063 | .61 | 82.0 | Cldy |
| 6 | 82 | 74 | 76.2 | .059 | T | 82.0 | Cldy |
| 7 | 82 | 72 | 75.6 | .031 | 2.11 | 82.0 | Cldy |
| 8 | 85 | 71 | 77.0 | .067 | .02 | 81.7 | Cldy |
| 9 | 84 | 74 | 75.5 | .026 | 3.15 | 82.0 | Cldy |
| 10 | 83 | 72 | 77.5 | .075 | 0 | 82.1 | Cldy |
| 11 | 85 | 74 | 78.8 | .094 | 0 | 82.6 | Pt.cldy |
| 12 | 87 | 73 | 79.3 | .103 | 0 | 83.3 | Cldy |
| 13 | 87 | 73 | 78.2 | .134 | .01 | 83.3 | Pt.cldy |
| 14 | 88 | 73 | 76.5 | .095 | 1.36 | 83.1 | Cldy |
| 15 | 83 | 73 | 76.9 | .086 | .19 | 82.9 | Pt.cldy |
| 16 | 85 | 73 | 76.0 | .118 | 1.71 | 82.2 | Cldy |
| 17 | 79 | 73 | 75.4 | .016 | 1.37 | 82.0 | Cldy |
| 18 | 87 | 73 | 78.1 | .043 | .06 | 82.2 | Pt.cldy |
| 19 | 90 | 74 | 78.8 | .048 | .84 | 81.6 | Pt.cldy |
| 20 | 88 | 75 | 78.5 | .051 | .82 | 81.1 | Cldy |
| 21 | 85 | 75 | 78.5 | .039 | .22 | 81.6 | Cldy |
| 22 | 87 | 74 | 78.0 | .059 | .01 | 81.2 | Cldy |
| 23 | 87 | 74 | 77.0 | .059 | .02 | 80.8 | Cldy |
| 24 | 88 | 74 | 78.8 | .059 | .20 | 81.6 | Pt.cldy |
| 25 | 87 | 75 | 78.7 | .075 | .40 | 82.0 | Cldy |
| 26 | 83 | 74 | 77.7 | .083 | .03 | 82.0 | Cldy |
| 27 | 83 | 73 | 77.8 | .043 | .04 | 81.4 | Pt.cldy |
| 28 | 85 | 73 | 76.6 | .036 | 0 | 81.2 | Pt.cldy |
| 29 | 87 | 73 | 78.6 | .051 | .04 | 81.5 | Pt.cldy |
| 30 | 91 | 73 | 78.5 | .086 | 0 | 81.5 | Pt.cldy |
| 31 | 83 | 74 | 77.2 | .079 | T | 81.5 | Cldy |
| Total | 2640 | 2278 | -- | 2.034 | 17.36 | -- | |
| Mean | 85.2 | 73.5 | 77.6 | .066 | -- | 82.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.849
Highest 29.950 Date 28
Lowest 29.730 Date 25

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 77.6
Highest 91 Date 30
Lowest 71 Date 8
Greatest daily range 18 Date 30
Mean for this month for 40 years 77.9
Maximum for this month for 40 years 95
Minimum for this month for 40 years 68
Average [redacted] deficiency of this month compared with a mean of years - 0.3

### PRECIPITATION
(Inches)

Total for this month 17.36
Greatest amount in 24 hours 3.15 Date 9
Average for this month for 49 years 10.29
Total from January 1, 1945 to date 46.85
Average from January 1 to date 54.83
Accumulated [redacted] deficiency from January 1 to date compared with average - 7.98

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.35 | 1917 6.16 | 1928 10.70 | 1939 12.93 |
| 1907 9.26 | 1918 9.16 | 1929 7.89 | 1940 6.43 |
| 1908 8.79 | 1919 12.11 | 1930 8.24 | 1941 12.78 |
| 1909 8.77 | 1920 6.48 | 1931 9.26 | 1942 7.99 |
| 1910 8.86 | 1921 13.86 | 1932 11.60 | 1943 10.27 |
| 1911 10.90 | 1922 9.03 | 1933 5.88 | 1944 11.29 |
| 1912 17.89 | 1923 15.02 | 1934 11.44 | 1945 17.36 |
| 1913 8.30 | 1924 10.38 | 1935 10.73 | 1946 |
| 1914 6.44 | 1925 7.37 | 1936 9.48 | 1947 |
| 1915 10.49 | 1926 9.93 | 1937 9.13 | 1948 |
| 1916 10.17 | 1927 8.36 | 1938 12.72 | 1949 |

### WIND

Prevailing direction NW
Total movement 3873 miles
Average hourly velocity 5.2 miles per hour
Maximum velocity for five minutes 29 miles per hour from 5 on 10

### MISCELLANEOUS

Total evaporation for this month 2.034 inches
Average daily evaporation .066 inches
Relative humidity, bihourly mean, percent 87.4
Sunshine, percentage of possible 23
Number of days clear 0 Partly cloudy 12 Cloudy 19
Number of days with .01 inch rain or more 23

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 3,17,18,19,20,22,24,30
Earthquakes None felt.

Note: ---- indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month November, 1945.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-Hr. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 74 | 78.5 | .099 | 0 | 81.6 | Pt.cldy |
| 2 | 86 | 75 | 79.2 | .138 | .16 | 82.5 | Pt.cldy |
| 3 | 89 | 76 | 78.7 | .039 | 1.14 | 82.5 | Cldy |
| 4 | 85 | 74 | 76.8 | .069 | 2.91 | 81.8 | Cldy |
| 5 | 81 | 74 | 76.8 | .031 | .04 | 81.7 | Cldy |
| 6 | 88 | 72 | 77.8 | .024 | 1.06 | 82.0 | Pt.cldy |
| 7 | 87 | 73 | 77.2 | .098 | .42 | 82.0 | Pt.cldy |
| 8 | 87 | 72 | 78.1 | .087 | .02 | 82.4 | Pt.cldy |
| 9 | 87 | 72 | 78.2 | .071 | .03 | 82.2 | Pt.cldy |
| 10 | 86 | 74 | 78.3 | .084 | 0 | 82.5 | Pt.cldy |
| 11 | 88 | 75 | 78.7 | .078 | .09 | 82.8 | Cldy |
| 12 | 84 | 74 | 77.5 | .099 | T | 83.0 | Pt.cldy |
| 13 | 89 | 75 | 78.4 | .083 | .05 | 82.2 | Cldy |
| 14 | 90 | 75 | 80.4 | .078 | 0 | 82.2 | Pt.cldy |
| 15 | 89 | 75 | 79.1 | .087 | 1.39 | 82.0 | Cldy |
| 16 | 84 | 75 | 78.7 | .090 | T | 81.2 | Pt.cldy |
| 17 | 85 | 75 | 78.2 | .091 | 0 | 81.5 | Pt.cldy |
| 18 | 87 | 74 | 77.8 | .074 | .02 | 81.7 | Pt.cldy |
| 19 | 85 | 74 | 77.0 | .071 | .02 | 81.2 | Cldy |
| 20 | 86 | 74 | 78.2 | .051 | .28 | 81.1 | Cldy |
| 21 | 88 | 74 | 78.7 | .067 | .15 | 81.4 | Pt.cldy |
| 22 | 86 | 74 | 76.6 | .079 | .87 | 81.0 | Pt.cldy |
| 23 | 90 | 72 | 79.1 | .083 | 0 | 81.8 | Clear |
| 24 | 88 | 73 | 79.1 | .114 | .25 | 82.2 | Ptcldy |
| 25 | 87 | 73 | 79.3 | .094 | 0 | 82.1 | Pt.cldy |
| 26 | 86 | 73 | 77.6 | .123 | 0 | 82.0 | Pt.cldy |
| 27 | 83 | 74 | 77.2 | .094 | .37 | 82.0 | Cldy |
| 28 | 84 | 75 | 76.8 | .075 | .15 | 82.0 | Cldy |
| 29 | 83 | 73 | 76.8 | .073 | .01 | 82.0 | Cldy |
| 30 | 86 | 73 | 77.7 | .134 | .06 | 81.7 | Pt.cldy |
| 31 | | | | | | | |
| | 2590 | 2216 | -- | 2.478 | 9.49 | -- | |
| Mean | 86.3 | 73.9 | 78.1 | .083 | -- | 81.9 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.821
Highest 29.925 Date 16
Lowest 29.700 Date 8

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) Bi-H. 78.1
Highest 90 Date 14
Lowest 72 Date 6
Greatest daily range 18 Date 23
Mean for this month for 40 years 77.6
Maximum for this month for 40 years 94
Minimum for this month for 40 years 67
Average excess or [redacted] of this month compared with a mean of 40 years + 0.5

### PRECIPITATION
(Inches)

Total for this month 9.49
Greatest amount in 24 hours 3.91 Date 3 + 4
Average for this month for 49 years 10.14
Total from January 1, 1945 to date 56.34
Average from January 1 to date 64.97
Accumulated excess or deficiency from January 1 to date compared with average - 8.63

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 13.57 | 1917 13.77 | 1928 20.51 | 1939 6.55 |
| 1907 10.51 | 1918 9.61 | 1929 12.62 | 1940 5.35 |
| 1908 9.12 | 1919 4.97 | 1930 5.12 | 1941 7.53 |
| 1909 15.14 | 1920 19.22 | 1931 12.60 | 1942 8.11 |
| 1910 4.29 | 1921 7.11 | 1932 10.18 | 1943 7.57 |
| 1911 7.57 | 1922 8.44 | 1933 13.28 | 1944 7.76 |
| 1912 6.38 | 1923 8.81 | 1934 12.89 | 1945 9.49 |
| 1913 10.63 | 1924 12.63 | 1935 19.70 | 1946 |
| 1914 10.35 | 1925 3.52 | 1936 8.29 | 1947 |
| 1915 7.05 | 1926 9.63 | 1937 10.18 | 1948 |
| 1916 8.77 | 1927 5.82 | 1938 11.23 | 1949 |

### WIND

Prevailing direction NW
Total movement 3902 miles
Average hourly velocity 5.4 miles per hour
Maximum velocity for five minutes 19 miles per hour from NW on 2

### MISCELLANEOUS

Total evaporation for this month 2.478 inches
Average daily evaporation .083 inches
Relative humidity, bihourly mean, percent 87.0
Sunshine, percentage of possible 30
Number of days clear 1 Partly cloudy 18 Cloudy 11
Number of days with .01 inch rain or more 21

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 7, 15
Earthquakes None felt.

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

4066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month December, 1945

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-Hr. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 81 | 73 | 75.4 | .063 | .19 | 81.2 | Cldy. |
| 2 | 85 | 73 | 76.6 | .079 | 0 | 81.0 | Pt.Cldy. |
| 3 | 82 | 74 | 76.2 | .055 | .04 | 80.2 | Cldy. |
| 4 | 81 | 74 | 76.3 | .043 | .75 | 80.0 | Cldy. |
| 5 | 78 | 73 | 73.5 | .067 | 1.20 | 79.7 | Cldy. |
| 6 | 80 | 71 | 74.2 | .059 | 1.36 | 79.1 | Cldy. |
| 7 | 85 | 73 | 77.8 | .032 | 0 | 79.6 | Pt.Cldy. |
| 8 | 85 | 73 | 77.8 | .102 | .02 | 79.7 | Pt.Cldy. |
| 9 | 88 | 73 | 78.7 | .075 | T | 80.3 | Pt.Cldy. |
| 10 | 88 | 70 | 77.9 | .142 | 0 | 81.0 | Clear |
| 11 | 88 | 71 | 78.4 | .134 | .03 | 80.5 | Pt.Cldy. |
| 12 | 89 | 73 | 78.6 | .098 | .01 | 80.0 | Pt.Cldy. |
| 13 | 89 | 72 | 78.7 | .142 | 0 | 80.0 | Clear |
| 14 | 90 | 72 | 79.3 | .145 | 0 | 80.2 | Pt.Cldy. |
| 15 | 90 | 74 | 79.9 | .099 | 0 | 80.4 | Pt.Cldy. |
| 16 | 87 | 75 | 79.4 | .149 | .06 | 80.4 | Pt.Cldy. |
| 17 | 89 | 74 | 79.8 | .138 | 0 | 80.2 | Pt.Cldy. |
| 18 | 86 | 74 | 79.2 | .107 | 0 | 80.3 | Pt.Cldy. |
| 19 | 83 | 74 | 77.6 | .070 | .80 | 80.5 | Cldy. |
| 20 | 84 | 74 | 76.8 | .040 | .85 | 80.1 | Cldy. |
| 21 | 88 | 72 | 78.4 | .078 | T | 79.8 | Pt.Cldy. |
| 22 | 87 | 73 | 78.8 | .099 | 0 | 79.9 | Pt.Cldy. |
| 23 | 89 | 73 | 78.8 | .114 | 0 | 80.2 | Clear |
| 24 | 85 | 72 | 76.8 | .142 | .92 | 80.2 | Pt.Cldy. |
| 25 | 88 | 71 | 75.9 | .138 | .28 | 80.3 | Pt.Cldy. |
| 26 | 85 | 71 | 76.6 | .083 | 0 | 80.0 | Pt.Cldy. |
| 27 | 88 | 72 | 78.3 | .066 | T | 80.2 | Pt.Cldy. |
| 28 | 90 | 73 | 79.4 | .091 | 0 | 80.1 | Clear |
| 29 | 87 | 73 | 78.9 | .150 | 0 | 80.4 | Pt.Cldy. |
| 30 | 85 | 73 | 77.8 | .082 | .05 | 80.7 | Pt.Cldy. |
| 31 | 86 | 75 | 77.7 | .079 | .95 | 81.2 | Pt.Cldy. |
| Total | 2666 | 2258 | 2391.5 | 2961 | 7.51 | - | |
| Mean | 86.0 | 72.8 | - | .096 | - | 80.2 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.836
Highest 29.960 Date 6
Lowest 29.700 Date 28

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 77.7
Highest 90 Date 14
Lowest 70 Date 10
Greatest daily range 18 Date 14
Mean for this month for 40 years 78.3
Maximum for this month for 40 years 94
Minimum for this month for 40 years 66
Average ~~excess or deficiency~~ of this month compared with a mean of years -0.6

### PRECIPITATION
(Inches)

Total for this month 7.51
Greatest amount in 24 hours 2.51 Date 5 & 6
Average for this month for 49 years 4.85
Total from January 1, 1945 to date 63.85
Average from January 1 to date 69.82
Accumulated ~~excess or~~ deficiency from January 1 to date compared with average -5.97

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 5.52 | 1917 4.09 | 1928 6.95 | 1939 6.23 |
| 1907 3.46 | 1918 .55 | 1929 4.17 | 1940 .20 |
| 1908 4.16 | 1919 1.81 | 1930 2.44 | 1941 5.40 |
| 1909 12.39 | 1920 1.94 | 1931 4.96 | 1942 11.23 |
| 1910 10.63 | 1921 5.19 | 1932 2.66 | 1943 8.53 |
| 1911 1.99 | 1922 3.82 | 1933 7.35 | 1944 4.10 |
| 1912 3.27 | 1923 3.94 | 1934 2.71 | 1945 7.51 |
| 1913 4.84 | 1924 8.31 | 1935 4.31 | 1946 |
| 1914 8.28 | 1925 1.88 | 1936 1.84 | 1947 |
| 1915 3.60 | 1926 8.38 | 1937 16.81 | 1948 |
| 1916 5.86 | 1927 2.95 | 1938 7.91 | 1949 |

### WIND

Prevailing direction NW
Total movement 4850 miles
Average hourly velocity 6.5 miles per hour
Maximum velocity for five minutes 21 miles per hour from N on 23

### MISCELLANEOUS

Total evaporation for this month 2.961 inches
Average daily evaporation .096 inches
Relative humidity, bihourly mean, percent 85.2
Sunshine, percentage of possible 53
Number of days clear 4 Partly cloudy 7 Cloudy 20
Number of days with .01 inch rain or more 15

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month JANUARY, 1946

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean Bi-H. | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 73 | 78.0 | .098 | 0 | 81.3 | Pt.Cldy |
| 2 | 86 | 72 | 76.8 | .060 | .02 | 81.5 | Pt.Cldy |
| 3 | 87 | 73 | 77.6 | .094 | 0 | 81.7 | Pt.Cldy |
| 4 | 85 | 71 | 76.2 | .122 | .55 | 80.7 | Pt.Cldy |
| 5 | 87 | 71 | 77.2 | .083 | 0 | 80.0 | Pt.Cldy |
| 6 | 87 | 72 | 78.0 | .114 | .01 | 80.2 | Clear |
| 7 | 87 | 72 | 78.5 | .114 | .06 | 80.2 | Pt.Cldy |
| 8 | 87 | 73 | 77.9 | .111 | .45 | 80.0 | Pt.Cldy |
| 9 | 86 | 72 | 77.5 | .078 | .12 | 80.2 | Pt.Cldy |
| 10 | 88 | 70 | 77.8 | .111 | 0 | 80.6 | Clear |
| 11 | 89 | 73 | 78.6 | .145 | 0 | 81.1 | Clear |
| 12 | 87 | 72 | 78.8 | .146 | 0 | 80.9 | Pt.Cldy |
| 13 | 88 | 72 | 79.4 | .161 | 0 | 80.7 | Pt.Cldy |
| 14 | 88 | 74 | 79.5 | .130 | 0 | 80.5 | Pt.Cldy |
| 15 | 88 | 74 | 80.2 | .095 | T | 81.4 | Pt.Cldy |
| 16 | 89 | 73 | 79.7 | .130 | 0 | 81.8 | Pt.Cldy |
| 17 | 89 | 74 | 80.4 | .157 | 0 | 81.2 | Clear |
| 18 | 88 | 75 | 80.1 | .130 | 0 | 81.0 | Pt.Cldy |
| 19 | 88 | 71 | 78.2 | .149 | 0 | 80.2 | Clear |
| 20 | 87 | 69 | 77.6 | .185 | 0 | 79.2 | Pt.Cldy |
| 21 | 89 | 71 | 79.6 | .142 | 0 | 79.2 | Pt.Cldy |
| 22 | 90 | 74 | 80.3 | .169 | 0 | 78.6 | Clear |
| 23 | 90 | 74 | 80.2 | .173 | 0 | 78.2 | Pt.Cldy |
| 24 | 89 | 73 | 80.0 | .217 | 0 | 77.7 | Pt. Cldy |
| 25 | 87 | 72 | 78.2 | .185 | .02 | 77.3 | Pt/ Cldy |
| 26 | 89 | 70 | 78.4 | .236 | 0 | 77.8 | Clear |
| 27 | 90 | 71 | 78.7 | .170 | 0 | 77.5 | Clear |
| 28 | 90 | 72 | 79.2 | .173 | 0 | 77.9 | Clear |
| 29 | 88 | 73 | 79.2 | .134 | 0 | 77.8 | Pt.Cldy |
| 30 | 89 | 74 | 79.8 | .098 | 0 | 77.7 | Pt.Cldy |
| 31 | 89 | 74 | 79.4 | .221 | 0 | 78.6 | Pt. Cldy |
| Total | 2727 | 2244 | - | 4.331 | 1.23 | - | |
| Mean | 88.0 | 72.4 | 78.7 | .140 | - | 79.7 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.853
Highest 30.010 Date 3
Lowest 29.700 Date 31

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 78.7
Highest 90 Date 22
Lowest 69 Date 20
Greatest daily range 19 Date 26
Mean for this month for 41 years 78.4
Maximum for this month for 41 years 93
Minimum for this month for 41 years 63
Average excess or deficiency of this month compared with a mean of 41 years +0.3

### PRECIPITATION
(Inches)

Total for this month 1.23
Greatest amount in 24 hours 0.57 Date 8-9
Average for this month for .48 years 1.04
Total from January 1, 1946 to date 1.23
Average from January 1 to date 1.04
Accumulated excess or deficiency from January 1 to date compared with average +0.19

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .43 | 1917 .13 | 1928 .02 | 1939 .43 |
| 1907 .29 | 1918 1.78 | 1929 .17 | 1940 3.14 |
| 1908 .12 | 1919 .28 | 1930 .05 | 1941 .87 |
| 1909 2.90 | 1920 T | 1931 T | 1942 .30 |
| 1910 1.22 | 1921 .88 | 1932 .38 | 1943 1.20 |
| 1911 .83 | 1922 1.73 | 1933 1.63 | 1944 .79 |
| 1912 T | 1923 .80 | 1934 4.04 | 1945 .75 |
| 1913 .63 | 1924 T | 1935 .88 | 1946 1.23 |
| 1914 .32 | 1925 1.44 | 1936 .83 | 1947 |
| 1915 2.12 | 1926 .01 | 1937 5.07 | 1948 |
| 1916 1.41 | 1927 .18 | 1938 2.20 | 1949 |

### WIND

Prevailing direction North
Total movement 5,689 miles
Average hourly velocity 7.6 miles per hour
Maximum velocity for five minutes 23 miles per hour from North on 17

### MISCELLANEOUS

Total evaporation for this month 4.331 inches
Average daily evaporation .140 inches
Relative humidity, bihourly mean, percent 78.1
Sunshine, percentage of possible 72
Number of days clear 9 Partly cloudy 22 Cloudy 0
Number of days with .01 inch rain or more 7

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 0
Earthquakes None Felt

Note—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month FEBRUARY, 1946

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-H Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 73 | 79.1 | .173 | .01 | 79.0 | Pt.Cldy. |
| 2 | 88 | 73 | 79.2 | .165 | 0 | 79.3 | Pt.Cldy. |
| 3 | 88 | 73 | 78.6 | .197 | T | 78.2 | Pt.Cldy. |
| 4 | 89 | 72 | 78.6 | .177 | 0 | 76.4 | Clear |
| 5 | 88 | 72 | 77.3 | .197 | .02 | 76.0 | Pt.Cldy. |
| 6 | 90 | 71 | 78.6 | .126 | 0 | 76.0 | Pt.Cldy. |
| 7 | 89 | 72 | 78.5 | .146 | 0 | 75.2 | Pt.Cldy. |
| 8 | 90 | 72 | 79.1 | .177 | 0 | 75.2 | Clear |
| 9 | 91 | 72 | 79.4 | .181 | 0 | 75.5 | Clear |
| 10 | 91 | 73 | 79.6 | .170 | 0 | 75.2 | Clear |
| 11 | 90 | 73 | 79.6 | .181 | T | 74.2 | Pt.Cldy. |
| 12 | 85 | 75 | 77.8 | .213 | T | 73.8 | Cloudy |
| 13 | 90 | 75 | 80.4 | .165 | 0 | 73.7 | Pt.Cldy. |
| 14 | 90 | 76 | 80.9 | .134 | 0 | 73.2 | Pt.Cldy. |
| 15 | 90 | 74 | 80.8 | .248 | T | 72.3 | Pt.Cldy. |
| 16 | 89 | 73 | 78.9 | .240 | 0 | 72.2 | Pt.Cldy. |
| 17 | 89 | 74 | 78.8 | .182 | 0 | 71.8 | Pt.Cldy. |
| 18 | 89 | 72 | 78.6 | .228 | 0 | 71.8 | Clear |
| 19 | 90 | 70 | 78.4 | .236 | 0 | 72.7 | Pt.Cldy. |
| 20 | 91 | 72 | 79.5 | .177 | 0 | 72.1 | Clear |
| 21 | 90 | 73 | 80.3 | .177 | 0 | 71.5 | Pt.Cldy. |
| 22 | 90 | 73 | 79.9 | .217 | 0 | 71.4 | Cloudy |
| 23 | 91 | 72 | 79.7 | .197 | 0 | 71.8 | Clear |
| 24 | 90 | 70 | 78.6 | .216 | 0 | 71.7 | Clear |
| 25 | 90 | 69 | 78.5 | .189 | 0 | 71.8 | Clear |
| 26 | 89 | 71 | 78.6 | .115 | 0 | 71.8 | Pt.Cldy. |
| 27 | 89 | 75 | 80.3 | .130 | 0 | 71.5 | Cloudy |
| 28 | 92 | 73 | 80.5 | .118 | 0 | 71.1 | Pt.Cldy. |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Total | — | — | — | 5.072 | 0.03 | — | |
| Mean | 89.4 | 72.6 | 79.2 | .181 | — | 73.8 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.846
Highest 29.965 Date 22
Lowest 29.726 Date 13

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 79.2
Highest 92 Date 28
Lowest 69 Date 25
Greatest daily range 21 Date 25
Mean for this month for 41 years 78.7
Maximum for this month for 41 years 95
Minimum for this month for 41 years 64
Average excess or deficiency of this month compared with a mean of 41 years + 0.5

### PRECIPITATION
(Inches)

Total for this month 0.03
Greatest amount in 24 hours 0.02 Date 5
Average for this month for 48 years 0.59
Total from January 1, 1946 to date 1.26
Average from January 1 to date 1.63
Accumulated excess or deficiency from January 1 to date compared with average + 0.37

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .33 | 1917 .19 | 1928 .32 | 1939 T |
| 1907 .04 | 1918 T | 1929 .02 | 1940 .11 |
| 1908 .24 | 1919 T | 1930 .85 | 1941 .53 |
| 1909 2.90 | 1920 T | 1931 T | 1942 .44 |
| 1910 .43 | 1921 2.37 | 1932 .46 | 1943 .89 |
| 1911 2.75 | 1922 2.03 | 1933 .30 | 1944 T |
| 1912 .08 | 1923 T | 1934 .07 | 1945 .11 |
| 1913 .22 | 1924 .05 | 1935 .36 | 1946 .03 |
| 1914 .02 | 1925 .07 | 1936 T | 1947 |
| 1915 2.96 | 1926 .07 | 1937 .56 | 1948 |
| 1916 1.48 | 1927 1.99 | 1938 .01 | 1949 |

### WIND

Prevailing direction North
Total movement 6739 miles
Average hourly velocity 10.0 miles per hour
Maximum velocity for five minutes 26 miles per hour from N on 15

### MISCELLANEOUS

Total evaporation for this month 5.072 inches
Average daily evaporation .181 inches
Relative humidity, bihourly mean, percent 73.0
Sunshine, percentage of possible 70
Number of days clear 9 Partly cloudy 16 Cloudy 3
Number of days with .01 inch rain or more 2

### DATES

Fogs, light —
Fogs, dense —
Halos, lunar —
Thunderstorms —
Earthquakes —
—

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

4066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, Canal Zone ; Month March, 1946

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-H. Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 73 | 80 | .185 | 0 | 71 | Cloudy |
| 2 | 92 | 70 | 80 | .200 | 0 | 70 | Pt.Cldy. |
| 3 | 91 | 72 | 80 | .186 | 0 | 70 | Clear |
| 4 | 90 | 71 | 79 | .204 | 0 | 71 | Pt.Cldy. |
| 5 | 91 | 71 | 79 | .240 | 0 | 70. | Pt.Cldy. |
| 6 | 91 | 71 | 80 | .201 | 0 | 71 | Pt.Cldy. |
| 7 | 91 | 72 | 80 | .169 | 0 | 71. | Clear |
| 8 | 92 | 71 | 80 | .252 | 0 | 72 | Clear |
| 9 | 91 | 73 | 81 | .244 | 0 | 72 | Clear |
| 10 | 92 | 72 | 80 | .252 | 0 | 72 | Clear |
| 11 | 91 | 72 | 80 | .197 | 0 | 72 | Clear |
| 12 | 91 | 70 | 79 | .248 | 0 | 71 | Pt.Cldy. |
| 13 | 89 | 72 | 80 | .225 | 0 | 70 | Pt.Cldy. |
| 14 | 91 | 75 | 81 | .098 | 0 | 71 | Pt.Cldy. |
| 15 | 91 | 74 | 82 | .220 | 0 | 71 | Cloudy |
| 16 | 91 | 75 | 81 | .150 | .07 | 72 | Pt.Cldy. |
| 17 | 93 | 72 | 81 | .166 | 0 | 72 | Clear |
| 18 | 89 | 75 | 80 | .216 | 0 | 72 | Cloudy |
| 19 | 92 | 75 | 81 | .189 | 0 | 71 | Pt.Cldy. |
| 20 | 89 | 73 | 80 | .232 | .06 | 72 | Pt.Cldy. |
| 21 | 88 | 75 | 80 | .158 | 0 | 71 | Pt.Cldy. |
| 22 | 91 | 73 | 80 | .229 | 0 | 71 | Pt.Cldy. |
| 23 | 91 | 72 | 80 | .236 | 0 | 71 | Pt.Cldy. |
| 24 | 88 | 75 | 80 | .256 | 0 | 72 | Pt.Cldy. |
| 25 | 90 | 77 | 81 | .134 | 0 | 71 | Cloudy |
| 26 | 91 | 77 | 81 | .200 | 0 | 71 | Pt.Cldy. |
| 27 | 88 | 76 | 81 | .201 | T | 72 | Cloudy |
| 28 | 91 | 76 | 82 | .150 | 0 | 72 | Cloudy |
| 29 | 89 | 75 | 79 | .161 | .96 | 71 | Cloudy |
| 30 | 91 | 75 | 81 | .122 | 0 | 71 | Pt.Cldy. |
| 31 | 93 | 75 | 81 | .165 | 0 | 71 | Pt.Cldy. |
| Sum | - | - | - | 6.086 | 1.09 | - | |
| Mean | 90.6 | 73.4 | 80.3 | - | - | 71.2 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.847
Highest 29.970 Date 11
Lowest 29.740 Date 20

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 80.3
Highest 93 Date 31
Lowest 70 Date 2
Greatest daily range 22 Date 2
Mean for this month for 41 years 79.9
Maximum for this month for 41 years 96
Minimum for this month for 41 years 65
Average excess or deficiency of this month compared with a mean of 41 years +0.4

### PRECIPITATION
(Inches)

Total for this month 1.09
Greatest amount in 24 hours .96 Date 29
Average for this month for 48 years .71
Total from January 1, 1946 to date 2.35
Average from January 1 to date 2.34
Accumulated excess or deficiency from January 1 to date compared with average +.01

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .05 | 1917 .02 | 1928 4.07 | 1939 T |
| 1907 T | 1918 1.25 | 1929 2.19 | 1940 .75 |
| 1908 .03 | 1919 T | 1930 .01 | 1941 .17 |
| 1909 .18 | 1920 .09 | 1931 .70 | 1942 1.92 |
| 1910 1.83 | 1921 2.98 | 1932 .13 | 1943 1.50 |
| 1911 .26 | 1922 1.02 | 1933 .46 | 1944 T |
| 1912 .01 | 1923 T | 1934 .20 | 1945 0 |
| 1913 .43 | 1924 .07 | 1935 T | 1946 1.09 |
| 1914 T | 1925 .07 | 1936 .36 | 1947 |
| 1915 T | 1926 0 | 1937 2.44 | 1948 |
| 1916 .89 | 1927 .01 | 1938 .25 | 1949 |

### WIND

Prevailing direction North
Total movement 7938 miles
Average hourly velocity 10.7 miles per hour
Maximum velocity for five minutes 24 miles per hour from N on 8

### MISCELLANEOUS

Total evaporation for this month 6.086 inches
Average daily evaporation .196 inches
Relative humidity, bihourly mean, percent 71.9
Sunshine, percentage of possible 61
Number of days clear 7 Partly cloudy 17 Cloudy 7
Number of days with .01 inch rain or more 3

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 29
Earthquakes 0

966-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month April, 1946

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean B.H. | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 72 | 80 | .209 | 0 | 72 | Pt Cldy |
| 2 | 93 | 70 | 80 | .181 | 0 | 72 | Clear |
| 3 | 93 | 72 | 80 | .228 | 0 | 72 | Pt Cldy |
| 4 | 93 | 73 | 82 | .197 | 0 | 72 | Pt Cldy |
| 5 | 94 | 74 | 83 | .197 | 0 | 73 | Pt Cldy |
| 6 | 94 | 77 | 82 | .138 | 0 | 72 | Pt Cldy |
| 7 | 93 | 76 | 82 | .216 | 0 | 72 | Pt Cldy |
| 8 | 91 | 72 | 81 | .244 | 0 | 72 | Pt Cldy |
| 9 | 91 | 72 | 81 | .170 | 0 | 74 | Clear |
| 10 | 94 | 72 | 81 | .177 | 0 | 74 | Pt Cldy |
| 11 | 92 | 75 | 81 | .236 | 0 | 74 | Pt Cldy |
| 12 | 95 | 76 | 83 | .197 | 0 | 73 | Pt Cldy |
| 13 | 91 | 77 | 83 | .217 | 0 | 74 | Pt Cldy |
| 14 | 92 | 75 | 82 | .200 | 0 | 74 | Pt Cldy |
| 15 | 91 | 75 | 82 | .174 | 0 | 73 | Pt Cldy |
| 16 | 94 | 75 | 83 | .196 | 0 | 73 | Pt Cldy |
| 17 | 93 | 75 | 82 | .221 | 0 | 73 | Pt Cldy |
| 18 | 89 | 76 | 80 | .193 | .87 | 74 | Cloudy |
| 19 | 90 | 75 | 80 | .118 | .04 | 74 | Pt Cldy |
| 20 | 89 | 75 | 81 | .118 | 0 | 74 | Pt Cldy |
| 21 | 91 | 75 | 81 | .271 | 0 | 74 | Pt Cldy |
| 22 | 90 | 78 | 82 | .142 | 0 | 74 | Cloudy |
| 23 | 93 | 77 | 83 | .177 | 0 | 75 | Cloudy |
| 24 | 90 | 75 | 81 | .217 | T | 76 | Cloudy |
| 25 | 90 | 75 | 81 | .158 | T | 77 | Cloudy |
| 26 | 93 | 75 | 82 | .118 | 0 | 78 | Pt Cldy |
| 27 | 91 | 75 | 82 | .158 | T | 78 | Pt Cldy |
| 28 | 97 | 75 | 84 | .134 | 0 | 78 | Pt Cldy |
| 29 | 95 | 77 | 83 | .197 | T | 78 | Cloudy |
| 30 | 92 | 76 | 82 | .217 | 0 | 78 | Cloudy |
| 31 | - | - | - | | | | |
| Total | 2766 | 2242 | - | 5.616 | .91 | - | |
| Mean | 92.2 | 74.7 | 81.7 | .187 | - | 74.2 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.844
Highest 29.940 Date 1
Lowest 29.730 Date 29

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 81.7
Highest 97 Date 28
Lowest 70 Date 2
Greatest daily range 23 Date 2
Mean for this month for 41 years 80.5
Maximum for this month for 41 years 87
Minimum for this month for 41 years 64
Average excess or deficiency of this month compared with a mean of 41 years + 1.2

### PRECIPITATION
(Inches)

Total for this month .91
Greatest amount in 24 hours .87 Date 18
Average for this month for 48 years 2.82
Total from January 1, 1946 to date 3.26
Average from January 1 to date 5.16
Accumulated excess or deficiency from January 1 to date compared with average - 1.90

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 7.76 | 1917 | 2.24 | 1928 | 3.38 | 1939 | .94 |
| 1907 | T | 1918 | 4.52 | 1929 | .43 | 1940 | 1.05 |
| 1908 | 1.37 | 1919 | 6.43 | 1930 | 6.78 | 1941 | 4.74 |
| 1909 | 2.62 | 1920 | 3.02 | 1931 | 1.42 | 1942 | 2.22 |
| 1910 | 3.71 | 1921 | 1.19 | 1932 | 7.56 | 1943 | 3.60 |
| 1911 | 6.34 | 1922 | .16 | 1933 | 3.46 | 1944 | 3.59 |
| 1912 | 2.68 | 1923 | .83 | 1934 | 5.09 | 1945 | 1.84 |
| 1913 | .03 | 1924 | 3.72 | 1935 | 2.40 | 1946 | .91 |
| 1914 | 4.80 | 1925 | 2.63 | 1936 | 1.64 | 1947 | |
| 1915 | 5.37 | 1926 | .08 | 1937 | 1.32 | 1948 | |
| 1916 | 2.84 | 1927 | 4.67 | 1938 | 1.93 | 1949 | |

### WIND

Prevailing direction N
Total movement 6470 miles
Average hourly velocity 9.0 miles per hour
Maximum velocity for five minutes 23 miles per hour from NW on 17

### MISCELLANEOUS

Total evaporation for this month 5.616 inches
Average daily evaporation .187 inches
Relative humidity, bihourly mean, percent 72.8
Sunshine, percentage of possible 70
Number of days clear 2 Partly cloudy 21 Cloudy 7
Number of days with .01 inch rain or more 2

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes None Felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month May, 1946

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bihourly Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 75 | 82 | .204 | 0 | 78 | Pt Cldy. |
| 2 | 90 | 75 | 81 | .189 | 0 | 79 | Pt Cldy. |
| 3 | 92 | 75 | 81 | .130 | .02 | 79 | Cloudy |
| 4 | 89 | 74 | 81 | .071 | .23 | 79 | Pt Cldy. |
| 5 | 94 | 76 | 83 | .165 | 0 | 79 | Pt Cldy. |
| 6 | 92 | 78 | 83 | .102 | 0 | 80 | Cloudy |
| 7 | 92 | 77 | 83 | .130 | .02 | 80 | Pt Cldy. |
| 8 | 88 | 77 | 82 | .134 | 0 | 80 | Pt Cldy. |
| 9 | 92 | 75 | 82 | .110 | 0 | 81 | Cloudy |
| 10 | 93 | 75 | 84 | .119 | .01 | 83 | Cloudy |
| 11 | 95 | 79 | 85 | .153 | 0 | 82 | Pt Cldy. |
| 12 | 96 | 78 | 86 | .169 | 0 | 82 | Pt Cldy. |
| 13 | 91 | 77 | 82 | .252 | 0 | 82 | Pt Cldy. |
| 14 | 87 | 75 | 79 | .177 | .49 | 82 | Cloudy |
| 15 | 87 | 76 | 80 | .071 | .20 | 83 | Cloudy |
| 16 | 90 | 74 | 79 | .098 | .06 | 82 | Pt Cldy. |
| 17 | 84 | 76 | 77 | .067 | .24 | 82 | Cloudy |
| 18 | 88 | 73 | 78 | .079 | .22 | 82 | Pt Cldy. |
| 19 | 92 | 75 | 82 | .110 | 0 | 82 | Cloudy |
| 20 | 90 | 77 | 82 | .071 | T | 83 | Cloudy |
| 21 | 82 | 77 | 79 | .098 | T | 82 | Cloudy |
| 22 | 85 | 76 | 76 | .056 | .04 | 82 | Cloudy |
| 23 | 86 | 72 | 78 | .059 | .55 | 82 | Pt Cldy. |
| 24 | 86 | 74 | 79 | .067 | T | 82 | Pt Cldy. |
| 25 | 86 | 73 | 79 | .086 | 0 | 84 | Pt Cldy. |
| 26 | 87 | 75 | 80 | .055 | .12 | 84 | Pt Cldy. |
| 27 | 91 | 74 | 82 | .075 | T | 83 | Cloudy |
| 28 | 82 | 77 | 80 | .110 | 0 | 83 | Cloudy |
| 29 | 87 | 74 | 80 | .095 | .02 | 82 | Cloudy |
| 30 | 86 | 76 | 81 | .051 | .16 | 82 | Pt Cldy. |
| 31 | 87 | 76 | 80 | .106 | .01 | 83 | Pt Cldy. |
| | - | - | - | 3.459 | 2.39 | - | |
| Mean | 89.0 | 75.5 | 80.9 | - | - | 81.7 | |

### ATMOSPHERIC PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.830
Highest 29.930 Date 10
Lowest 29.710 Date 11

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 80.9
Highest 96 Date 12
Lowest 72 Date 23
Greatest daily range 18 Date 16
Mean for this month for 41 years 79.5
Maximum for this month for 41 years 96
Minimum for this month for 41 years 69
Average excess or deficiency of this month compared with a mean of 41 years + 1.4

### PRECIPITATION
(Inches)

Total for this month 2.39
Greatest amount in 24 hours .56 Date 22
Average for this month for 48 years 7.84
Total from January 1, 1946 to date 5.65
Average from January 1 to date 13.00
Accumulated excess or deficiency from January 1 to date compared with average - 7.35

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 10.68 | 1917 5.75 | 1928 4.20 | 1939 4.61 |
| 1907 4.44 | 1918 6.75 | 1929 4.04 | 1940 2.26 |
| 1908 7.64 | 1919 5.21 | 1930 9.70 | 1941 9.03 |
| 1909 9.10 | 1920 3.31 | 1931 13.15 | 1942 12.16 |
| 1910 9.89 | 1921 8.60 | 1932 9.39 | 1943 6.68 |
| 1911 11.04 | 1922 9.80 | 1933 7.96 | 1944 8.35 |
| 1912 10.71 | 1923 5.84 | 1934 4.96 | 1945 4.22 |
| 1913 8.27 | 1924 5.51 | 1935 8.10 | 1946 2.39 |
| 1914 6.98 | 1925 6.73 | 1936 6.36 | 1947 |
| 1915 5.12 | 1926 4.16 | 1937 10.98 | 1948 |
| 1916 12.59 | 1927 9.06 | 1938 12.03 | 1949 |

### WIND

Prevailing direction NW
Total movement 4172 miles
Average hourly velocity 5.6 miles per hour
Maximum velocity for five minutes 21 miles per hour from NW on 10

### MISCELLANEOUS

Total evaporation for this month 3.459 inches
Average daily evaporation .112 inches
Relative humidity, bihourly mean, percent 83.3
Sunshine, percentage of possible 80
Number of days clear - Partly cloudy 17 Cloudy 14
Number of days with .01 inch rain or more 15

### DATES

Fogs, light -
Fogs, dense -
Halos, lunar -
Thunderstorms 20, 22, 23
Earthquakes None

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month July, 1946

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 76 | 82 | .075 | .17 | 84 | Pt.Cldy. |
| 2 | 81 | 75 | 77 | .106 | .25 | 83 | Cloudy |
| 3 | 85 | 74 | 78 | .086 | .64 | 82 | Cloudy |
| 4 | 92 | 72 | 80 | .083 | .04 | 83 | Pt.Cldy. |
| 5 | 90 | 77 | 82 | .059 | 0 | 83 | Clear |
| 6 | 90 | 77 | 85 | .080 | .02 | 83 | Pt.Cldy. |
| 7 | 86 | 77 | 80 | .079 | 0 | 83 | Pt.Cldy. |
| 8 | 87 | 75 | 79 | .145 | .93 | 83 | Cloudy |
| 9 | 88 | 76 | 80 | .075 | T | 83 | Pt.Cldy. |
| 10 | 89 | 76 | 79 | .091 | .33 | 84 | Pt.Cldy. |
| 11 | 91 | 76 | 83 | .102 | 0 | 84 | Clear |
| 12 | 92 | 76 | 83 | .132 | T | 83 | Pt.Cldy. |
| 13 | 91 | 76 | 83 | .122 | 0 | 83 | Pt.Cldy. |
| 14 | 91 | 77 | 83 | .153 | .03 | 83 | Pt.Cldy. |
| 15 | 85 | 77 | 80 | .193 | 0 | 82 | Cloudy |
| 16 | 86 | 76 | 80 | .112 | T | 82 | Cloudy |
| 17 | 91 | 75 | 82 | .082 | T | 83 | Pt.Cldy. |
| 18 | 87 | 77 | 79 | .115 | .02 | 83 | Cloudy |
| 19 | 91 | 75 | 81 | .082 | 0 | 83 | Pt.Cldy. |
| 20 | 91 | 77 | 82 | .118 | 0 | 84 | Pt.Cldy. |
| 21 | 87 | 77 | 81 | .115 | .01 | 83 | Pt.Cldy. |
| 22 | 90 | 76 | 81 | .110 | T | 83 | Pt.Cldy. |
| 23 | 89 | 74 | 78 | .141 | 2.63 | 82 | Cloudy |
| 24 | 89 | 75 | 78 | .087 | .04 | 82 | Pt.Cldy. |
| 25 | 82 | 75 | 77 | .071 | .03 | 81 | Cloudy |
| 26 | 83 | 74 | 78 | .060 | .65 | 81 | Cloudy |
| 27 | 87 | 76 | 80 | .036 | 0 | 81 | Clear |
| 28 | 88 | 75 | 79 | .035 | T | 81 | Cloudy |
| 29 | 89 | 75 | 78 | .066 | 1.56 | 81 | Pt.Cldy. |
| 30 | 87 | 72 | 80 | .181 | 0 | 82 | Pt.Cldy. |
| 31 | 91 | 75 | 81 | .055 | .09 | 83 | Pt.Cldy. |
| | - | - | - | 3.077 | 7.44 | - | |
| Mean | 88.3 | 75.5 | 80.3 | | | 82.7 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.828
Highest 29.950 Date 28
Lowest 29.720 Date 1

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 80.3
Highest 92 Date 4
Lowest 72 Date 30
Greatest daily range 20 Date 4
Mean for this month for 41 years 79.2
Maximum for this month for 41 years 95
Minimum for this month for 41 years 67
Average excess or deficiency of this month compared with a mean of 41 years + 1.1

### PRECIPITATION
(Inches)

Total for this month 7.44
Greatest amount in 24 hours 2.63 Date 23
Average for this month for 50 years 7.08
Total from January 1, 1946 to date 17.27
Average from January 1 to date 28.30
Accumulated excess or deficiency from January 1 to date compared with average -11.03

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 8.98 | 1917 10.17 | 1928 7.91 | 1939 5.06 |
| 1907 4.28 | 1918 5.13 | 1929 5.22 | 1940 6.23 |
| 1908 6.83 | 1919 4.75 | 1930 4.04 | 1941 6.05 |
| 1909 9.01 | 1920 6.18 | 1931 10.48 | 1942 6.22 |
| 1910 9.26 | 1921 8.07 | 1932 6.29 | 1943 6.49 |
| 1911 5.78 | 1922 5.08 | 1933 6.01 | 1944 4.85 |
| 1912 10.25 | 1923 3.15 | 1934 5.39 | 1945 5.89 |
| 1913 4.85 | 1924 5.97 | 1935 13.16 | 1946 7.44 |
| 1914 4.32 | 1925 3.83 | 1936 5.94 | 1947 |
| 1915 6.93 | 1926 9.93 | 1937 6.57 | 1948 |
| 1916 10.13 | 1927 8.22 | 1938 7.52 | 1949 |

### WIND

Prevailing direction NW
Total movement 4716 miles
Average hourly velocity 6.3 miles per hour
Maximum velocity for five minutes 24 miles per hour from N on 29th

### MISCELLANEOUS

Total evaporation for this month 3.077 inches
Average daily evaporation .099 inches
Relative humidity, bihourly mean, percent 86.0
Sunshine, percentage of possible 50
Number of days clear 3 Partly cloudy 18 Cloudy 10
Number of days with .01 inch rain or more 16

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 1, 7, 10, 14, 15, 21, 23, 24, 2[illegible]
Earthquakes 1 felt 12th

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month AUGUST, 1946

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 76 | 82 | .095 | 0 | 83 | Pt.Cldy |
| 2 | 92 | 77 | 81 | .145 | 1.75 | 82 | Cloudy |
| 3 | 88 | 75 | 79 | .103 | .42 | 82 | Cloudy |
| 4 | 82 | 75 | 77 | .122 | .05 | 82 | Cloudy |
| 5 | 80 | 74 | 75 | .059 | .30 | 81 | Cloudy |
| 6 | 86 | 71 | 78 | .031 | 0 | 81 | Cloudy |
| 7 | 88 | 73 | 79 | .114 | .47 | 82 | Pt.Cldy |
| 8 | 88 | 75 | 80 | .083 | .15 | 81 | Pt.Cldy |
| 9 | 87 | 75 | 79 | .083 | 0 | 82 | Pt.Cldy |
| 10 | 84 | 76 | 78 | .087 | 0 | 82 | Cloudy |
| 11 | 81 | 75 | 77 | .067 | .02 | 82 | Cloudy |
| 12 | 90 | 76 | 81 | .074 | 0 | 82 | Clear |
| 13 | 89 | 77 | 82 | .099 | 0 | 81 | Clear |
| 14 | 92 | 77 | 83 | .090 | .02 | 83 | PtCldy |
| 15 | 85 | 75 | 79 | .087 | T | 83 | Cloudy |
| 16 | 91 | 75 | 80 | .055 | .10 | 83 | PtCldy |
| 17 | 91 | 76 | 81 | .071 | .13 | 83 | PtCldy |
| 18 | 88 | 76 | 80 | .071 | 0 | 83 | PtCldy |
| 19 | 80 | 74 | 77 | .118 | .22 | 82 | Cloudy |
| 20 | 89 | 74 | 81 | .055 | 0 | 82 | PtCldy |
| 21 | 85 | 76 | 80 | .087 | T | 82 | PtCldy |
| 22 | 91 | 69 | 80 | .114 | .78 | 82 | PtCldy |
| 23 | 86 | 72 | 78 | .117 | 0 | 82 | PtCldy |
| 24 | 84 | 75 | 78 | .067 | .05 | 82 | PtCldy |
| 25 | 86 | 74 | 79 | .061 | .02 | 83 | Cloudy |
| 26 | 80 | 76 | 76 | .053 | .67 | 82 | Cloudy |
| 27 | 87 | 71 | 79 | .051 | 0 | 81 | PtCldy |
| 28 | 88 | 74 | 80 | .044 | T | 82 | PtCldy |
| 29 | 91 | 74 | 81 | .063 | .37 | 82 | PtCldy |
| 30 | 90 | 76 | 82 | .110 | .75 | 82 | PtCldy |
| 31 | 86 | 77 | 79 | .106 | .29 | 82 | Cloudy |
| | — | — | — | 2.642 | 6.56 | — | |
| Mean | 86.9 | 74.7 | 79.4 | — | — | 81.9 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.841
Highest 29.960 Date 5th
Lowest 29.730 Date 30th

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 79.4
Highest 92 Date 2
Lowest 69 Date 22
Greatest daily range 22 Date 22
Mean for this month for 41 years 78.7
Maximum for this month for 41 years 94
Minimum for this month for 41 years 68
Average excess or deficiency of this month compared with a mean of 41 years +0.7

### PRECIPITATION
(Inches)

Total for this month 6.56
Greatest amount in 24 hours 1.81 Date 2-3
Average for this month for 50 years 7.79
Total from January 1, 1946 to date 23.83
Average from January 1 to date 36.09
Accumulated excess or deficiency from January 1 to date compared with average -12.26

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.44 | 1917 7.42 | 1928 6.87 | 1939 5.12 |
| 1907 7.46 | 1918 3.84 | 1929 11.96 | 1940 4.59 |
| 1908 11.48 | 1919 5.82 | 1930 4.34 | 1941 11.65 |
| 1909 6.84 | 1920 12.22 | 1931 4.28 | 1942 5.40 |
| 1910 12.00 | 1921 9.51 | 1932 7.61 | 1943 6.50 |
| 1911 7.21 | 1922 1.46 | 1933 6.55 | 1944 14.47 |
| 1912 6.33 | 1923 5.37 | 1934 4.52 | 1945 6.37 |
| 1913 8.20 | 1924 14.46 | 1935 11.41 | 1946 6.56 |
| 1914 6.09 | 1925 10.83 | 1936 6.14 | 1947 |
| 1915 15.24 | 1926 10.45 | 1937 3.80 | 1948 |
| 1916 10.53 | 1927 7.76 | 1938 11.82 | 1949 |

### WIND

Prevailing direction NW
Total movement 4587 miles
Average hourly velocity 6.2 miles per hour
Maximum velocity for five minutes 26 miles per hour from 5 on 22

### MISCELLANEOUS

Total evaporation for this month 2.642 inches
Average daily evaporation .085 inches
Relative humidity, bihourly mean, percent 87.6
Sunshine, percentage of possible 49
Number of days clear 2 Partly cloudy 17 Cloudy 12
Number of days with .01 inch rain or more 18

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 2,7,8,16,17,22, 25,26,31
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month NOVEMBER, 1946

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Bi-H Mean | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 73 | 79 | .028 | .01 | 81 | Clear |
| 2 | 89 | 73 | 79 | .079 | 0 | 82 | Pt.Cldy. |
| 3 | 87 | 75 | 80 | .019 | 0 | 81 | Pt.Cldy. |
| 4 | 88 | 75 | 78 | .142 | .04 | 81 | Pt.Cldy. |
| 5 | 85 | 73 | 78 | .079 | 0 | 81 | Pt.Cldy. |
| 6 | 89 | 74 | 80 | .024 | .25 | 81 | Pt.Cldy. |
| 7 | 90 | 74 | 81 | .074 | .59 | 82 | Pt.Cldy. |
| 8 | 87 | 73 | 78 | .103 | 1.96 | 80 | Cloudy |
| 9 | 86 | 75 | 78 | .059 | .04 | 80 | Cloudy |
| 10 | 86 | 75 | 79 | .043 | .14 | 80 | Cloudy |
| 11 | 85 | 74 | 77 | .047 | .67 | 80 | Cloudy |
| 12 | 85 | 73 | 76 | .052 | .25 | 80 | Cloudy |
| 13 | 88 | 71 | 78 | .074 | T | 79 | Pt.Cloudy |
| 14 | 88 | 72 | 79 | .044 | .07 | 80 | Pt.Cldy. |
| 15 | 84 | 72 | 78 | .087 | 0 | 81 | Pt.Cldy. |
| 16 | 87 | 72 | 78 | .081 | .01 | 81 | Pt.Cldy. |
| 17 | 85 | 72 | 77 | .078 | .54 | 81 | Pt.Cldy. |
| 18 | 87 | 74 | 77 | .087 | .40 | 80 | Pt.Cldy. |
| 19 | 86 | 71 | 77 | .090 | .10 | 81 | Pt.Cldy. |
| 20 | 86 | 72 | 77 | .075 | .55 | 80 | Pt.Cldy. |
| 21 | 85 | 71 | 76 | .087 | 1.08 | 80 | Cloudy |
| 22 | 83 | 72 | 77 | .039 | .54 | 80 | Cloudy |
| 23 | 85 | 71 | 78 | .055 | 0 | 81 | Pt.Cldy. |
| 24 | 82 | 72 | 76 | .075 | .05 | 81 | Cloudy |
| 25 | 81 | 73 | 78 | .051 | .05 | 81 | Cloudy |
| 26 | 85 | 73 | 78 | .040 | .02 | 82 | Clear |
| 27 | 86 | 71 | 79 | .090 | 0 | 82 | Pt.Cldy. |
| 28 | 84 | 71 | 77 | .095 | .49 | 82 | Pt.Cldy. |
| 29 | 85 | 72 | 78 | .033 | 0 | 81 | Pt.Cldy. |
| 30 | 88 | 73 | 80 | .055 | .23 | 82 | Pt.Cldy. |
| 31 | | | | | | | |
| Total | 2578 | 2182 | - | 1.995 | 8.08 | - | |
| Mean | 85.9 | 72.7 | 78.0 | .066 | - | 80.7 | |

**ATMOSPHERIC PRESSURE**
(Inches, reduced to sea level)

Bihourly mean 29.825
Highest 29.970 Date 16th
Lowest 29.690 Date 17th

**TEMPERATURE**
(Degrees Fahrenheit)

Monthly mean Bi-H 78.0
Highest 90 Date 7th
Lowest 71 Date 27th
Greatest daily range 17 Date 13th
Mean for this month for 41 years 77.6
Maximum for this month for 41 years 94
Minimum for this month for 41 years 67
Average excess or ~~deficiency~~ of this month compared with a mean of 41 years + 0.4

**PRECIPITATION**
(Inches)

Total for this month 8.08
Greatest amount in 24 hours 2.29 Date 7-8th
Average for this month for 50 years 10.10
Total from January 1, 1946 to date 48.58
Average from January 1 to date 64.61
Accumulated ~~excess~~ or deficiency from January 1 to date compared with average - 16.03

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 13.57 | 1917 13.77 | 1928 20.51 | 1939 6.55 |
| 1907 10.51 | 1918 9.61 | 1929 12.62 | 1940 5.35 |
| 1908 9.12 | 1919 4.97 | 1930 5.12 | 1941 7.53 |
| 1909 15.14 | 1920 19.22 | 1931 12.60 | 1942 8.41 |
| 1910 4.29 | 1921 7.11 | 1932 10.18 | 1943 7.57 |
| 1911 7.57 | 1922 8.44 | 1933 13.28 | 1944 7.76 |
| 1912 6.38 | 1923 8.81 | 1934 12.89 | 1945 9.49 |
| 1913 10.63 | 1924 12.63 | 1935 19.70 | 1946 8.08 |
| 1914 10.35 | 1925 3.52 | 1936 8.29 | 1947 |
| 1915 7.05 | 1926 9.63 | 1937 10.18 | 1948 |
| 1916 8.77 | 1927 5.82 | 1938 11.23 | 1949 |

**WIND**

Prevailing direction NW
Total movement 3488 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity for five minutes 20 miles per hour from NW on 18th

**MISCELLANEOUS**

Total evaporation for this month 1.995 inches
Average daily evaporation .066 inches
Relative humidity, bihourly mean, percent 89.1
Sunshine, percentage of possible 36
Number of days clear 2 Partly cloudy 19 Cloudy 9
Number of days with .01 inch rain or more 22

**DATES**

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 2,6,8,11,28,30
Earthquakes None Felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

66-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month December, 1946

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 74 | 79 | .071 | .03 | 82 | Pt.Cldy |
| 2 | 87 | 73 | 77 | .090 | 0 | 81 | Pt.Cldy |
| 3 | 89 | 74 | 79 | .055 | .10 | 80 | Pt.Cldy |
| 4 | 88 | 74 | 80 | .067 | T | 80 | Pt.Cldy |
| 5 | 86 | 74 | 78 | .091 | 0 | 80 | Pt.Cldy |
| 6 | 86 | 73 | 77 | .078 | .18 | 79 | Cloudy |
| 7 | 86 | 73 | 79 | .044 | 0 | 80 | Pt.Cldy |
| 8 | 87 | 74 | 80 | .106 | .43 | 80 | Pt.Cldy |
| 9 | 87 | 73 | 79 | .059 | .27 | 80 | Pt.Cldy |
| 10 | 82 | 72 | 77 | .079 | .16 | 81 | Cloudy |
| 11 | 82 | 72 | 75 | .063 | 1.17 | 80 | Cloudy |
| 12 | 84 | 70 | 78 | .059 | 0 | 80 | Pt.Cloudy |
| 13 | 87 | 74 | 80 | .043 | 0 | 80 | Pt.Cldy |
| 14 | 89 | 73 | 81 | .059 | 0 | 80 | Clear |
| 15 | 86 | 75 | 78 | .099 | .79 | 80 | Cloudy |
| 16 | 83 | 72 | 77 | .082 | .38 | 79 | Cloudy |
| 17 | 85 | 74 | 77 | .063 | .04 | 79 | Cloudy |
| 18 | 86 | 74 | 77 | .032 | .46 | 79 | Pt.Cldy |
| 19 | 83 | 73 | 77 | .039 | .99 | 80 | Cloudy |
| 20 | 87 | 72 | 79 | .059 | .10 | 80 | Pt.Cldy |
| 21 | 90 | 72 | 80 | .067 | .06 | 80 | Pt.Cldy |
| 22 | 88 | 72 | 80 | .063 | 0 | 80 | Clear |
| 23 | 88 | 70 | 78 | .126 | 0 | 80 | Clear |
| 24 | 88 | 70 | 78 | .150 | 0 | 81 | Clear |
| 25 | 89 | 73 | 80 | .118 | 0 | 80 | Clear |
| 26 | 88 | 73 | 81 | .142 | 0 | 81 | Pt.Cldy |
| 27 | 90 | 73 | 82 | .141 | 0 | 80 | Pt.Cldy |
| 28 | 90 | 73 | 82 | .201 | T | 80 | Pt.Cldy |
| 29 | 89 | 73 | 82 | .110 | 0 | 80 | Pt.Cldy |
| 30 | 88 | 74 | 80 | .114 | .01 | 80 | Pt.Cldy |
| 31 | 88 | 73 | 79 | .185 | 0 | 81 | Pt.Cldy |
| Total | 2691 | 2264 | -- | 2.735 | 5.17 | -- | |
| Mean | 86.8 | 73.1 | 80.0 | .089 | -- | 80.1 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.785
Highest 29.880 Date 22nd
Lowest 29.680 Date 11th

### TEMPERATURE
(Degrees Fahrenheit)

Bi-hourly
Monthly mean (Bi-H.) 80.0
Highest 90 Date 28
Lowest 70 Date 12
Greatest daily range 18 Date 24
Mean for this month for 41 years 78.3
Maximum for this month for 41 years 94
Minimum for this month for 41 years 66
Average excess or deficiency of this month compared with a mean of 41 years + 0.6

### PRECIPITATION
(Inches)

Total for this month 5.17
Greatest amount in 24 hours .17 Date 11th
Average for this month for 50 years 4.86
Total from January 1, 1946 to date 53.75
Average from January 1 to date 69.47
Accumulated excess or deficiency from January 1 to date compared with average - 15.72

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 5.52 | 1917 | 4.09 | 1928 | 6.95 | 1939 | 6.23 |
| 1907 | 3.46 | 1918 | .55 | 1929 | 4.17 | 1940 | .20 |
| 1908 | 4.16 | 1919 | 1.81 | 1930 | 2.44 | 1941 | 5.40 |
| 1909 | 12.39 | 1920 | 1.94 | 1931 | 4.96 | 1942 | 11.23 |
| 1910 | 10.63 | 1921 | 5.19 | 1932 | 2.86 | 1943 | 8.53 |
| 1911 | 1.99 | 1922 | 3.82 | 1933 | 7.35 | 1944 | 4.10 |
| 1912 | 3.27 | 1923 | 3.94 | 1934 | 2.71 | 1945 | 7.51 |
| 1913 | 4.84 | 1924 | 8.51 | 1935 | 4.51 | 1946 | 5.17 |
| 1914 | 8.28 | 1925 | 1.88 | 1936 | 1.84 | 1947 | |
| 1915 | 3.69 | 1926 | 8.38 | 1937 | 16.84 | 1948 | |
| 1916 | 3.86 | 1927 | 2.95 | 1938 | 7.91 | 1949 | |

### WIND

Prevailing direction E
Total movement 4212 miles
Average hourly velocity 5.7 miles per hour
Maximum velocity for five minutes 87 miles per hour from S on 15th

### MISCELLANEOUS

Total evaporation for this month 2.735 inches
Average daily evaporation .089 inches
Relative humidity, bihourly mean, percent 87.6
Sunshine, percentage of possible 51
Number of days clear 5 Partly cloudy 19 Cloudy 7
Number of days with .01 inch rain or more 15

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 2, 15, 18
Earthquakes One felt on 11th

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

266-7

# THE PANAMA CANAL

MR 74990—Panama Canal—11-10-40—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month January, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 72 | 81 | .118 | 0 | 81 | Clear |
| 2 | 87 | 72 | 80 | .103 | 0 | 80 | Pt.Cldy |
| 3 | 88 | 70 | 78 | .094 | 0 | 80 | Clear |
| 4 | 89 | 70 | 80 | .134 | 0 | 80 | Clear |
| 5 | 87 | 70 | 78 | .118 | .35 | 80 | Pt.Cldy |
| 6 | 89 | 69 | 79 | .020 | .21 | 80 | Pt.Cldy |
| 7 | 90 | 70 | 80 | .106 | 0 | 80 | Pt.Cldy |
| 8 | 90 | 73 | 82 | .133 | 0 | 80 | Pt.Cldy |
| 9 | 90 | 74 | 82 | .126 | 0 | 81 | Pt.Cldy |
| 10 | 89 | 75 | 82 | .134 | 0 | 82 | Clear |
| 11 | 88 | 73 | 80 | .166 | 0 | 82 | Pt.Cldy |
| 12 | 89 | 74 | 82 | .122 | .23 | 82 | Pt.Cldy |
| 13 | 91 | 74 | 82 | .082 | 0 | 81 | Pt.Cldy |
| 14 | 89 | 74 | 82 | .126 | 0 | 81 | Pt. Cldy |
| 15 | 90 | 74 | 82 | .166 | 0 | 80 | Clear |
| 16 | 89 | 73 | 81 | .141 | 0 | 80 | Pt.Cldy |
| 17 | 89 | 74 | 82 | .091 | T | 80 | Pt.Cldy |
| 18 | 89 | 72 | 80 | .165 | .11 | 78 | Pt.Cldy |
| 19 | 90 | 72 | 81 | .091 | 0 | 78 | Clear |
| 20 | 90 | 73 | 82 | .118 | 0 | 78 | Pt.Cldy |
| 21 | 91 | 73 | 82 | .138 | 0 | 79 | Pt.Cldy |
| 22 | 88 | 74 | 81 | .169 | .19 | 79 | Pt.Cldy |
| 23 | 89 | 70 | 80 | .169 | T | 80 | Clear |
| 24 | 89 | 71 | 80 | .174 | 0 | 80 | Pt.Cldy |
| 25 | 89 | 70 | 80 | .145 | T | 80 | Pt.Cldy |
| 26 | 89 | 71 | 80 | .146 | 0 | 80 | Pt.Cldy |
| 27 | 89 | 71 | 80 | .136 | 0 | 80 | Pt.Cldy |
| 28 | 90 | 71 | 80 | .130 | 0 | 79 | Clear |
| 29 | 89 | 72 | 80 | .157 | 0 | 79 | Pt.Cldy |
| 30 | 90 | 70 | 80 | .158 | 0 | 79 | Pt.Cldy |
| 31 | 90 | 72 | 81 | .161 | 0 | 79 | Pt.Cldy |
| Total | 2766 | 2233 | - | 4.037 | 1.09 | - | |
| Mean | 89.2 | 72.0 | 80.6 | .130 | | 80.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.829
Highest 29.970 Date 22nd
Lowest 29.700 Date 14th

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 80.6
Highest 91 Date 21st
Lowest 69 Date 6th
Greatest daily range 20 Date 7th
Mean for this month for 42 years 79.9
Maximum for this month for 42 years 93
Minimum for this month for 42 years 63
Average excess [redacted] of this month compared with a mean of 42 years + 0.7

### PRECIPITATION
(Inches)

Total for this month 1.09
Greatest amount in 24 hours .35 Date 5th
Average for this month for 49 years 1.04
Total from January 1, 1947 to date 1.09
Average from January 1 to date 1.04
Accumulated excess [redacted] from January 1 to date compared with average + 0.05

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .43 | 1917 .13 | 1928 .02 | 1939 .43 |
| 1907 .29 | 1918 1.78 | 1929 .17 | 1940 3.14 |
| 1908 .12 | 1919 .28 | 1930 .05 | 1941 .87 |
| 1909 2.90 | 1920 T | 1931 T | 1942 .30 |
| 1910 1.22 | 1921 .88 | 1932 .38 | 1943 1.20 |
| 1911 .83 | 1922 1.73 | 1933 1.63 | 1944 .79 |
| 1912 T | 1923 .80 | 1934 4.06 | 1945 .75 |
| 1913 .63 | 1924 T | 1935 .88 | 1946 1.23 |
| 1914 .32 | 1925 1.44 | 1936 .83 | 1947 1.09 |
| 1915 2.12 | 1926 .01 | 1937 5.07 | 1948 |
| 1916 1.41 | 1927 .18 | 1938 2.20 | 1949 |

### WIND

Prevailing direction North
Total movement 5751 miles
Average hourly velocity 7.7 miles per hour
Maximum velocity for five minutes 21 miles per hour from N on 22nd

### MISCELLANEOUS

Total evaporation for this month 4.037 inches
Average daily evaporation .130 inches
Relative humidity, bihourly mean, percent 79.8
Sunshine, percentage of possible 70
Number of days clear 8 Partly cloudy 22 Cloudy 1
Number of days with .01 inch rain or more 5

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 0
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month February, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 72 | 82 | .091 | 0 | 78 | Pt.Cldy. |
| 2 | 91 | 73 | 82 | .224 | 0 | 79 | Pt.Cldy. |
| 3 | 89 | 72 | 80 | .142 | 0 | 79 | Pt.Cldy. |
| 4 | 87 | 73 | 80 | .153 | .03 | 78 | Cloudy |
| 5 | 90 | 71 | 80 | .158 | 0 | 78 | Pt.Cldy. |
| 6 | 86 | 71 | 78 | .177 | 0 | 77 | Pt.Cldy. |
| 7 | 90 | 73 | 82 | .094 | .49 | 76 | Pt.Cldy. |
| 8 | 91 | 74 | 82 | .111 | 0 | 76 | Pt.Cldy. |
| 9 | 90 | 73 | 82 | .145 | 0 | 75 | Clear |
| 10 | 89 | 72 | 80 | .252 | 0 | 75 | Pt.Cldy. |
| 11 | 90 | 74 | 82 | .185 | 0 | 75 | Pt.Cldy. |
| 12 | 92 | 73 | 82 | .142 | 0 | 74 | Clear |
| 13 | 94 | 72 | 83 | .173 | 0 | 74 | Clear |
| 14 | 87 | 72 | 78 | .209 | T | 74 | PtCldy |
| 15 | 88 | 71 | 80 | .157 | T | 73 | PtCldy |
| 16 | 88 | 73 | 80 | .146 | 0 | 73 | PtCldy |
| 17 | 88 | 70 | 79 | .189 | 0 | 73 | PtCldy |
| 18 | 91 | 70 | 80 | .173 | 0 | 73 | PtCldy |
| 19 | 91 | 70 | 80 | .122 | 0 | 73 | PtCldy |
| 20 | 88 | 69 | 78 | .154 | 0 | 73 | Clear |
| 21 | 82 | 71 | 76 | .130 | 0 | 73 | PtCldy |
| 22 | 85 | 74 | 80 | .126 | 0 | 75 | PtCldy |
| 23 | 87 | 70 | 78 | .137 | T | 74 | PtCldy |
| 24 | 91 | 70 | 80 | .126 | .01 | 74 | Cloudy |
| 25 | 93 | 72 | 82 | .122 | 0 | 75 | PtCldy |
| 26 | 90 | 73 | 82 | .174 | 0 | 74 | PtCldy |
| 27 | 92 | 73 | 82 | .212 | 0 | 75 | PtCldy |
| 28 | 92 | 73 | 82 | .201 | 0 | 76 | PtCldy |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Total | 2503 | 2014 | - | 4.425 | .53 | - | |
| Mean | 89.4 | 71.9 | 80.6 | .158 | - | 75.2 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.858
Highest 29.980 Date 22nd
Lowest 29.720 Date 8th

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (B[redacted] 80.6
Highest 94 Date 13th
Lowest 69 Date 20th
Greatest daily range 22 Date 13th
Mean for this month for 42 years 80.3
Maximum for this month for 42 years 92
Minimum for this month for 42 years 64
Average excess o[redacted] of this month compared with a mean of 42 years + 0.3

### PRECIPITATION
(Inches)

Total for this month .53
Greatest amount in 24 hours .49 Date 7
Average for this month for 47 .49 years 0.59
Total from January 1, 19 47 to date 1.62
Average from January 1 to date 1.63
Accumulated excess or deficiency from January 1 to date compared with average -.01

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .33 | 1917 .19 | 1928 .32 | 1939 T |
| 1907 .04 | 1918 T | 1929 .02 | 1940 .11 |
| 1908 .24 | 1919 T | 1930 .85 | 1941 .53 |
| 1909 2.90 | 1920 T | 1931 T | 1942 .44 |
| 1910 .43 | 1921 2.37 | 1932 .46 | 1943 .09 |
| 1911 2.75 | 1922 2.03 | 1933 .30 | 1944 T |
| 1912 .08 | 1923 T | 1934 .07 | 1945 .11 |
| 1913 .22 | 1924 .05 | 1935 .36 | 1946 .03 |
| 1914 .02 | 1925 .07 | 1936 T | 1947 .53 |
| 1915 2.96 | 1926 .07 | 1937 .56 | 1948 |
| 1916 1.48 | 1927 1.99 | 1938 .01 | 1949 |

### WIND

Prevailing direction North
Total movement 5933 miles
Average hourly velocity 8.8 miles per hour
Maximum velocity for five minutes 24 miles per hour from N on 11

### MISCELLANEOUS

Total evaporation for this month 4.425 inches
Average daily evaporation .158 inches
Relative humidity, bihourly mean, percent 78.5
Sunshine, percentage of possible 67
Number of days clear 4 Partly cloudy 22 Cloudy 2
Number of days with .01 inch rain or more 3

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms 0
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights; Month March, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 74 | 84 | .161 | 0 | .76 | Pt.Cldy |
| 2 | 86 | 74 | 80 | .212 | 0 | .75 | Pt.Cldy. |
| 3 | 94 | 74 | 84 | .126 | 0 | .75 | Pt.Cldy. |
| 4 | 91 | 74 | 82 | .197 | 0 | .74 | Pt.Cldy. |
| 5 | 89 | 75 | 82 | .189 | T | .73 | Cloudy |
| 6 | 93 | 76 | 84 | .177 | 0 | .73 | Pt.Cldy. |
| 7 | 93 | 74 | 84 | .240 | 0 | .73 | Pt.Cldy. |
| 8 | 92 | 73 | 82 | .205 | 0 | 74 | Pt.Cldy. |
| 9 | 93 | 73 | 83 | .197 | 0 | .75 | Clear |
| 10 | 89 | 74 | 82 | .260 | 0 | .75 | Cloudy |
| 11 | 92 | 73 | 82 | .173 | 0 | .75 | Cloudy |
| 12 | 92 | 74 | 83 | .177 | 0 | .74 | Pt.Cldy. |
| 13 | 93 | 75 | 84 | .237 | 0 | .75 | Pt.Cldy. |
| 14 | 94 | 75 | 84 | .177 | 0 | .75 | Pt.Cldy. |
| 15 | 92 | 75 | 84 | .228 | 0 | .76 | Pt.Cldy. |
| 16 | 92 | 74 | 83 | .233 | 0 | .76 | Clear |
| 17 | 92 | 74 | 83 | .181 | 0 | .76 | Pt.Cldy. |
| 18 | 93 | 74 | 84 | .193 | 0 | .75 | Pt.Cldy. |
| 19 | 93 | 72 | 82 | .185 | 0 | .74 | Pt.Cldy. |
| 20 | 93 | 72 | 82 | .212 | 0 | .74 | Clear |
| 21 | 92 | 72 | 82 | .185 | 0 | .74 | Pt.Cldy. |
| 22 | 92 | 71 | 82 | .169 | 0 | .74 | Pt.Cldy. |
| 23 | 89 | 69 | 79 | .244 | 0 | .74 | Pt.Cldy. |
| 24 | 93 | 71 | 82 | .200 | 0 | .74 | Pt.Cldy. |
| 25 | 92 | 74 | 83 | .174 | 0 | .75 | Pt.Cldy. |
| 26 | 94 | 74 | 84 | .149 | 0 | .75 | Pt.Cldy. |
| 27 | 90 | 74 | 82 | .272 | 0 | .75 | Cloudy |
| 28 | 91 | 77 | 84 | .220 | 0 | .75 | Pt.Cldy. |
| 29 | 87 | 75 | 81 | .220 | .02 | .75 | Cloudy |
| 30 | 89 | 71 | 80 | .146 | 0 | .76 | Pt.Cldy. |
| 31 | 93 | 73 | 83 | .134 | 0 | .77 | Pt.Cldy. |
| Sum | 2841 | 2280 | – | 6.073 | .02 | – | |
| Mean | 91.6 | 73.5 | 82.4 | .196 | – | 74.7 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.853
Highest 30.000 Date 22nd
Lowest 29.720 Date 14th

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 82.6
Highest 94 Date 3rd
Lowest 69 Date 23rd
Greatest daily range 22 Date 24th
Mean for this month for 42 years 81.4
Maximum for this month for 42 years 96
Minimum for this month for 42 years 65
Average excess or deficiency of this month compared with a mean of 42 years + 1.2

### PRECIPITATION
(Inches)

Total for this month .02
Greatest amount in 24 hours .02 Date 29
Average for this month for 47 years .70
Total from January 1, 1947 to date 1.64
Average from January 1 to date 2.33
Accumulated excess or deficiency from January 1 to date compared with average – .69

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | .05 | 1917 | .02 | 1928 | 4.07 | 1939 | T |
| 1907 | T | 1918 | 1.25 | 1929 | 2.19 | 1940 | .75 |
| 1908 | .03 | 1919 | T | 1930 | .01 | 1941 | .17 |
| 1909 | .18 | 1920 | .09 | 1931 | .70 | 1942 | 1.92 |
| 1910 | 1.83 | 1921 | 2.98 | 1932 | .13 | 1943 | 1.50 |
| 1911 | .26 | 1922 | 1.02 | 1933 | .46 | 1944 | T |
| 1912 | .01 | 1923 | T | 1934 | .20 | 1945 | 0 |
| 1913 | .43 | 1924 | .07 | 1935 | T | 1946 | 1.09 |
| 1914 | T | 1925 | .07 | 1936 | .36 | 1947 | .02 |
| 1915 | T | 1926 | 0 | 1937 | 2.44 | 1948 | |
| 1916 | .89 | 1927 | .01 | 1938 | .25 | 1949 | |

### WIND

Prevailing direction North
Total movement 7130 miles
Average hourly velocity 9.6 miles per hour
Maximum velocity for five minutes 24 miles per hour from North on 12th

### MISCELLANEOUS

Total evaporation for this month 6.073 inches
Average daily evaporation .196 inches
Relative humidity, bihourly mean, percent 75.5
Sunshine, percentage of possible 63
Number of days clear 5 Partly cloudy 23 Cloudy 5
Number of days with .01 inch rain or more 1

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes None felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, Canal Zone; Month April, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 74 | 84 | .157 | .01 | 78 | PtCldy |
| 2 | 90 | 73 | 82 | .130 | 0 | 78 | PtCldy |
| 3 | 90 | 73 | 82 | .118 | 0 | 78 | PtCldy |
| 4 | 94 | 72 | 83 | .173 | 0 | 78 | Clear |
| 5 | 94 | 74 | 84 | .201 | 1.01 | 77 | Cloudy |
| 6 | 93 | 75 | 84 | .126 | 0 | 77 | PtCldy |
| 7 | 91 | 76 | 84 | .173 | 0 | 77 | PtCldy |
| 8 | 94 | 75 | 84 | .185 | 0 | 78 | PtCldy |
| 9 | 94 | 76 | 85 | .229 | 0 | 78 | PtCldy |
| 10 | 92 | 75 | 84 | .212 | 0 | 79 | PtCldy |
| 11 | 94 | 76 | 85 | .162 | 0 | 79 | PtCldy |
| 12 | 90 | 76 | 85 | .248 | 0 | 79 | Cloudy |
| 13 | 93 | 76 | 84 | .252 | 0 | 78 | Cloudy |
| 14 | 95 | 75 | 85 | .181 | 0 | 79 | PtCldy |
| 15 | 96 | 76 | 86 | .209 | 0 | 78 | PtCldy |
| 16 | 94 | 75 | 84 | .209 | 0 | 78 | Cloudy |
| 17 | 94 | 75 | 84 | .232 | 0 | 79 | PtCldy |
| 18 | 93 | 74 | 84 | .260 | 0 | 78 | PtCldy |
| 19 | 92 | 75 | 84 | .216 | 0 | 78 | PtCldy |
| 20 | 95 | 77 | 86 | .233 | 0 | 78 | PtCldy |
| 21 | 93 | 76 | 84 | .208 | 0 | 78 | PtCldy |
| 22 | 93 | 75 | 84 | .193 | 0 | 78 | PtCldy |
| 23 | 92 | 75 | 84 | .201 | 0 | 78 | PtCldy |
| 24 | 91 | 76 | 84 | .177 | T | 78 | Cloudy |
| 25 | 95 | 74 | 84 | .110 | 0 | 78 | PtCldy |
| 26 | 92 | 74 | 83 | .193 | .08 | 78 | PtCldy |
| 27 | 93 | 75 | 84 | .197 | 0 | 78 | PtCldy |
| 28 | 89 | 74 | 82 | .177 | .10 | 78 | PtCldy |
| 29 | 86 | 74 | 80 | .146 | .15 | 78 | Cloudy |
| 30 | 92 | 74 | 83 | .090 | .44 | 79 | PtCldy |
| 31 | 2777 | 2245 | - | 5.598 | 1.79 | | |
| Mean | 92.6 | 74.8 | 83.7 | .187 | - | 78.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.833
Highest 29.940 Date 28th
Lowest 29.690 Date 11th

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 83.7
Highest 96 Date 15th
Lowest 72 Date 4th
Greatest daily range 22 Date 4th
Mean for this month for 42 years 82.0
Maximum for this month for 42 years 97
Minimum for this month for 42 years 64
Average excess ~~or deficiency~~ of this month compared with a mean of 42 years +1.7

### PRECIPITATION
(Inches)

Total for this month 1.79
Greatest amount in 24 hours 1.01 Date 5th
Average for this month for 49 years 2.80
Total from January 1, 1947 to date 3.43
Average from January 1 to date 5.13
Accumulated ~~excess or~~ deficiency from January 1 to date compared with average -1.70

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 7.76 | 1917 | 2.24 | 1928 | 3.38 | 1939 | .94 |
| 1907 | T | 1918 | 4.52 | 1929 | .43 | 1940 | 1.05 |
| 1908 | 1.37 | 1919 | 6.43 | 1930 | 6.78 | 1941 | 4.74 |
| 1909 | 2.92 | 1920 | 3.02 | 1931 | 1.45 | 1942 | 2.25 |
| 1910 | 3.71 | 1921 | 1.19 | 1932 | 7.56 | 1943 | 3.60 |
| 1911 | 6.34 | 1922 | .16 | 1933 | 3.46 | 1944 | 3.59 |
| 1912 | 2.68 | 1923 | .83 | 1934 | 5.09 | 1945 | 1.84 |
| 1913 | .03 | 1924 | 3.72 | 1935 | 2.40 | 1946 | .91 |
| 1914 | 4.80 | 1925 | 2.63 | 1936 | 1.64 | 1947 | 1.79 |
| 1915 | 5.37 | 1926 | .08 | 1937 | 1.32 | 1948 | |
| 1916 | 2.84 | 1927 | 4.67 | 1938 | 1.93 | 1949 | |

### WIND

Prevailing direction NW
Total movement 6,489 miles
Average hourly velocity 9.0 miles per hour
Maximum velocity for five minutes 24 miles per hour from NW on 14th

MAY 20 1947

### MISCELLANEOUS

Total evaporation for this month 5.598 inches
Average daily evaporation .187 inches
Relative humidity, bihourly mean, percent 77.0
Sunshine, percentage of possible 46
Number of days clear 1 Partly cloudy 23 Cloudy 6
Number of days with .01 inch rain or more 6

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 2,5,24
Earthquakes None Felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS C. Z.; Month MAY, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 75 | 84 | .118 | 0 | 80 | Cloudy |
| 2 | 89 | 76 | 82 | .138 | .34 | 80 | Cloudy |
| 3 | 93 | 74 | 84 | .169 | 0 | 80 | Clear |
| 4 | 91 | 74 | 82 | .272 | 0 | 80 | Pt.Cldy |
| 5 | 92 | 74 | 83 | .177 | T | 80 | Pt.Cldy |
| 6 | 90 | 77 | 84 | .154 | 0 | 80 | Cloudy |
| 7 | 91 | 76 | 84 | .161 | T | 79 | Cloudy |
| 8 | 91 | 76 | 84 | .130 | .15 | 79 | Cloudy |
| 9 | 92 | 75 | 84 | .130 | .02 | 80 | Pt.Cldy |
| 10 | 92 | 75 | 84 | .114 | 0 | 81 | Pt.Cldy |
| 11 | 90 | 76 | 83 | .161 | .11 | 81 | Cloudy |
| 12 | 93 | 76 | 84 | .103 | T | 81 | Pt.Cldy |
| 13 | 90 | 76 | 83 | .142 | .02 | 81 | Cloudy |
| 14 | 87 | 74 | 80 | .106 | 0 | 81 | Cloudy |
| 15 | 84 | 74 | 79 | .087 | .01 | 81 | Cloudy |
| 16 | 86 | 75 | 80 | .049 | .09 | 81 | Cloudy |
| 17 | 93 | 75 | 84 | .085 | T | 82 | Pt.cldy |
| 18 | 91 | 75 | 83 | .138 | .05 | 82 | Pt.cldy |
| 19 | 86 | 75 | 80 | .110 | .17 | 82 | Cloudy |
| 20 | 89 | 73 | 81 | .046 | .98 | 82 | Pt.cldy |
| 21 | 89 | 73 | 81 | .099 | .16 | 82 | Pt.cldy |
| 22 | 88 | 72 | 80 | .051 | .08 | 82 | Pt.cldy |
| 23 | 88 | 73 | 80 | .067 | 2.09 | 81 | Cloudy |
| 24 | 86 | 74 | 80 | .051 | .01 | 81 | Cloudy |
| 25 | 86 | 74 | 80 | .067 | T | 81 | Pt.cldy |
| 26 | 87 | 73 | 81 | .055 | .02 | 82 | Cloudy |
| 27 | 91 | 73 | 83 | .067 | .25 | 82 | Pt.cldy |
| 28 | 88 | 73 | 82 | .130 | T | 82 | Cloudy |
| 29 | 90 | 73 | 82 | .067 | .43 | 83 | Cloudy |
| 30 | 89 | 73 | 82 | .078 | T | 84 | Cloudy |
| 31 | 88 | 76 | 82 | .048 | .01 | 84 | Cloudy |
| Total | 2772 | 2318 | — | | 4.99 | | |
| Mean | 89.4 | 74.8 | 82.1 | 3.410 | | 81.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.846
Highest 29.940 Date 14
Lowest 29.740 Date 8

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (MEAN) 82.1
Highest 93 Date 12
Lowest 72 Date 22
Greatest daily range 19 Date 3
Mean for this month for 42 years 80.9
Maximum for this month for 42 years 96
Minimum for this month for 42 years 69
Average excess or deficiency of this month compared with a mean of 42 years + 1.2

### PRECIPITATION
(Inches)

Total for this month 4.99
Greatest amount in 24 hours 2.10 Date 23 & 24
Average for this month for 49 years 7.78
Total from January 1, 1947 to date 8.42
Average from January 1 to date 12.91
Accumulated (EXCESS) deficiency from January 1 to date compared with average - 4.49

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 10.68 | 1917 5.75 | 1928 4.20 | 1939 4.61 |
| 1907 4.44 | 1918 6.42 | 1929 4.04 | 1940 2.36 |
| 1908 7.24 | 1919 [illegible] | 1930 9.76 | 1941 9.93 |
| 1909 9.10 | 1920 [illegible] | 1931 14.13 | 1942 12.16 |
| 1910 6.89 | 1921 8.80 | 1932 9.59 | 1943 6.68 |
| 1911 11.04 | 1922 9.80 | 1933 7.96 | 1944 8.35 |
| 1912 10.70 | 1923 [illegible] | 1934 [illegible] | 1945 4.22 |
| 1913 8.27 | 1924 [illegible] | 1935 8.10 | 1946 2.39 |
| 1914 6.98 | 1925 9.71 | 1936 6.36 | 1947 4.99 |
| 1915 8.42 | 1926 4.13 | 1937 10.98 | 1948 |
| 1916 12.59 | 1927 9.06 | 1938 12.03 | 1949 |

### WIND

Prevailing direction NW
Total movement 4759 miles
Average hourly velocity 6.4 miles per hour
Maximum velocity for five minutes 23 miles per hour from N on 23rd

### MISCELLANEOUS

Total evaporation for this month 3.410 inches
Average daily evaporation .110 inches
Relative humidity, bihourly mean, percent 84.8
Sunshine, percentage of possible 25
Number of days clear 1 Partly cloudy 12 Cloudy 18
Number of days with .01 inch rain or more 18

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 8,12,13,19,20,21,23,25,26
Earthquakes 28,29,31
Earthquakes — None felt.

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month June, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 82 | .082 | .11 | 84 | Cloudy |
| 2 | 86 | 74 | 80 | .063 | .02 | 83 | Cloudy |
| 3 | 85 | 73 | 79 | .047 | .03 | 84 | Pt.Cldy. |
| 4 | 86 | 74 | 80 | .087 | 1.25 | 84 | Cloudy |
| 5 | 84 | 74 | 79 | .094 | .77 | 83 | Cloudy |
| 6 | 85 | 75 | 80 | .083 | .06 | 83 | Cloudy |
| 7 | 87 | 76 | 82 | .063 | .08 | 84 | Cloudy |
| 8 | 82 | 76 | 79 | .032 | .02 | 83 | Cloudy |
| 9 | 86 | 75 | 80 | .063 | .23 | 83 | Pt.Cldy. |
| 10 | 87 | 75 | 81 | .083 | .55 | 84 | Pt.Cldy |
| 11 | 85 | 75 | 80 | .075 | T | 83 | Cloudy |
| 12 | 83 | 74 | 78 | .063 | .33 | 83 | Cloudy |
| 13 | 86 | 75 | 80 | .063 | .08 | 82 | Cloudy |
| 14 | 86 | 76 | 81 | .075 | .11 | 84 | Cloudy |
| 15 | 87 | 74 | 80 | .086 | .03 | 82 | Cloudy |
| 16 | 84 | 75 | 80 | .063 | .07 | 83 | Cloudy |
| 17 | 83 | 73 | 78 | .079 | .07 | 84 | Cloudy |
| 18 | 77 | 73 | 75 | .051 | .53 | 83 | Cloudy |
| 19 | 84 | 73 | 78 | .032 | .23 | 83 | Cloudy |
| 20 | 87 | 75 | 81 | .031 | 0 | 83 | Pt.Cldy. |
| 21 | 90 | 74 | 82 | .067 | 0 | 82 | Pt.Cldy. |
| 22 | 81 | 75 | 78 | .102 | .05 | 82 | Cloudy |
| 23 | 83 | 74 | 78 | .024 | .02 | 82 | Cloudy |
| 24 | 86 | 72 | 79 | .071 | 0 | 82 | Pt.Cldy. |
| 25 | 88 | 72 | 80 | .051 | 0 | 82 | Pt.Cldy. |
| 26 | 91 | 75 | 83 | .079 | .50 | 83 | Pt.Cldy. |
| 27 | 82 | 71 | 76 | .082 | .79 | 82 | Cloudy |
| 28 | 88 | 72 | 80 | .044 | .05 | 82 | Cloudy |
| 29 | 89 | 76 | 82 | .055 | .10 | 81 | Cloudy |
| 30 | 88 | 75 | 82 | .039 | .05 | 82 | Cloudy |
| 31 | | | | | | | |
| Total | 2566 | 2225 | — | 1.999 | 6.06 | — | |
| Mean | 85.5 | 74.2 | 79.8 | .067 | — | 82.9 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.843
Highest 29.930 Date 18
Lowest 29.730 Date 30

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 79.8
Highest 91 Date 26
Lowest 71 Date 27
Greatest daily range 16 Date 21
Mean for this month for 42 years 80.2
Maximum for this month for 42 years 94
Minimum for this month for 42 years 69
Average excess or deficiency of this month compared with a mean of 42 years -0.4

### PRECIPITATION
(Inches)

Total for this month 6.06
Greatest amount in 24 hours 1.83 Date 4 & 5
Average for this month for 50 years 8.18
Total from January 1, 1947 to date 14.48
Average from January 1 to date 21.09
Accumulated [redacted] or deficiency from January 1 to date compared with average -6.61

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 6.79 | 1917 | 7.35 | 1928 | 8.78 | 1939 | 12.65 |
| 1907 | 12.64 | 1918 | 5.20 | 1929 | 9.34 | 1940 | 6.03 |
| 1908 | 4.28 | 1919 | 8.93 | 1930 | 2.50 | 1941 | 5.96 |
| 1909 | 9.90 | 1920 | 4.83 | 1931 | 7.81 | 1942 | 5.59 |
| 1910 | 8.82 | 1921 | 7.86 | 1932 | 9.23 | 1943 | 10.75 |
| 1911 | 3.40 | 1922 | 7.92 | 1933 | 14.36 | 1944 | 15.37 |
| 1912 | 5.80 | 1923 | 5.59 | 1934 | 10.85 | 1945 | 5.17 |
| 1913 | 8.15 | 1924 | 8.41 | 1935 | 7.54 | 1946 | 4.18 |
| 1914 | 7.28 | 1925 | 18.34 | 1936 | 9.12 | 1947 | 6.06 |
| 1915 | 2.85 | 1926 | 12.33 | 1937 | 7.44 | 1948 | |
| 1916 | 4.39 | 1927 | 10.83 | 1938 | 9.49 | 1949 | |

### WIND

Prevailing direction NW
Total movement 2954 miles
Average hourly velocity 4.1 miles per hour
Maximum velocity for five minutes 24 miles per hour from NE on 27

### MISCELLANEOUS

Total evaporation for this month 1.999 inches
Average daily evaporation .067 inches
Relative humidity, bihourly mean, percent 88.9
Sunshine, percentage of possible 29
Number of days clear 0 Partly cloudy 8 Cloudy 22
Number of days with .01 inch rain or more 25

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 5-10-11-15-22-27-28-29
Earthquakes None felt.

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month July, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 81 | 75 | 78 | .095 | .21 | 82 | Cloudy |
| 2 | 83 | 74 | 78 | .043 | .26 | 82 | Cloudy |
| 3 | 81 | 73 | 77 | .047 | .01 | 81 | Cloudy |
| 4 | 84 | 73 | 78 | .028 | .09 | 81 | Cloudy |
| 5 | 85 | 74 | 80 | .039 | .04 | 82 | PtCldy |
| 6 | 82 | 74 | 78 | .083 | .20 | 82 | Cloudy |
| 7 | 86 | 74 | 80 | .059 | 1.19 | 83 | Cloudy |
| 8 | 88 | 74 | 81 | .047 | T | 84 | PtCldy |
| 9 | 92 | 76 | 84 | .063 | T | 85 | Cloudy |
| 10 | 90 | 76 | 83 | .075 | .48 | 84 | Cloudy |
| 11 | 92 | 75 | 84 | .087 | .48 | 84 | PtCldy |
| 12 | 88 | 75 | 82 | .051 | .07 | 82 | PtCldy |
| 13 | 85 | 76 | 80 | .075 | .18 | 82 | Cloudy |
| 14 | 90 | 75 | 82 | .059 | 0 | 82 | Cloudy |
| 15 | 91 | 75 | 83 | .067 | .55 | 82 | PtCldy |
| 16 | 87 | 75 | 81 | .075 | .18 | 83 | Cloudy |
| 17 | 79 | 72 | 76 | .067 | .71 | 82 | Cloudy |
| 18 | 89 | 75 | 82 | .035 | .01 | 82 | Cloudy |
| 19 | 92 | 75 | 84 | .063 | .27 | 82 | Cloudy |
| 20 | 86 | 75 | 80 | .071 | 0 | 82 | Cloudy |
| 21 | 87 | 75 | 81 | .043 | .68 | 81 | Cloudy |
| 22 | 83 | 74 | 78 | .071 | .08 | 81 | Cloudy |
| 23 | 84 | 73 | 78 | .032 | .57 | 80 | Cloudy |
| 24 | 85 | 73 | 79 | .027 | .10 | 81 | Cloudy |
| 25 | 84 | 74 | 79 | .055 | .17 | 82 | Cloudy |
| 26 | 85 | 73 | 79 | .048 | 0 | 81 | Cloudy |
| 27 | 86 | 73 | 80 | .086 | T | 81 | PtCldy |
| 28 | 85 | 74 | 80 | .059 | .34 | 82 | Cloudy |
| 29 | 83 | 74 | 78 | .075 | .37 | 81 | Cloudy |
| 30 | 84 | 74 | 79 | .055 | .01 | 81 | Cloudy |
| 31 | 80 | 73 | 82 | .063 | 0 | 81 | PtCldy |
| Total | 2667 | 2301 | - | 1.843 | 7.25 | - | |
| Mean | 86.0 | 74.2 | 80.1 | .059 | | 82.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.849
Highest 29.970 Date 29
Lowest 29.740 Date 11

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 80.1
Highest 92 Date 11
Lowest 73 Date 17
Greatest daily range 19 Date 11
Mean for this month for 42 years 89.5
Maximum for this month for 42 years 95
Minimum for this month for 42 years 67
Average deficiency of this month compared with a mean of 42 years -0.4

### PRECIPITATION
(Inches)

Total for this month 7.25
Greatest amount in 24 hours 1.19 Date 7
Average for this month for 51 years 7.08
Total from January 1, 1947 to date 21.73
Average from January 1 to date 28.17
Accumulated deficiency from January 1 to date compared with average -6.44

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 8.98 | 1917 | 10.7 | 1928 | 7.91 | 1939 | 5.06 |
| 1907 | 4.28 | 1918 | 5.13 | 1929 | 5.22 | 1940 | 6.23 |
| 1908 | 6.83 | 1919 | 4.75 | 1930 | 6.04 | 1941 | 6.05 |
| 1909 | 9.01 | 1920 | 6.18 | 1931 | 10.48 | 1942 | 6.22 |
| 1910 | 9.26 | 1921 | 8.07 | 1932 | 6.29 | 1943 | 6.49 |
| 1911 | 5.78 | 1922 | 5.08 | 1933 | 6.01 | 1944 | 4.85 |
| 1912 | 10.25 | 1923 | 3.25 | 1934 | 5.39 | 1945 | 5.89 |
| 1913 | 4.85 | 1924 | 5.97 | 1935 | 13.16 | 1946 | 7.44 |
| 1914 | 4.32 | 1925 | 3.83 | 1936 | 5.84 | 1947 | 7.25 |
| 1915 | 6.93 | 1926 | 9.93 | 1937 | 9.57 | 1948 | |
| 1916 | 10.13 | 1927 | 8.22 | 1938 | 7.52 | 1949 | |

### WIND

Prevailing direction NW
Total movement 3345 miles
Average hourly velocity 4.5 miles per hour
Maximum velocity for five minutes 20 miles per hour from S on 17

### MISCELLANEOUS

Total evaporation for this month 1.843 inches
Average daily evaporation .059 inches
Relative humidity, bihourly mean, percent 89.5
Sunshine, percentage of possible 42
Number of days clear 0 Partly cloudy 7 Cloudy 24
Number of days with .01 inch rain or more 24

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar 1,7,8,9,10,11,15,16,19,21
Thunderstorms None felt
Earthquakes

PANAMA CANAL OCT 23 1947 WEATHER BUREAU

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HTS. C. Z.; Month AUGUST, 1947.

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 82 | .063 | .07 | 80 | Pt.Cldy |
| 2 | 86 | 73 | 80 | .099 | 0 | 80 | Pt.Cldy |
| 3 | 87 | 73 | 80 | .087 | .46 | 81 | Pt.Cldy |
| 4 | 87 | 73 | 80 | .063 | .29 | 82 | Cloudy |
| 5 | 85 | 73 | 79 | .067 | 0 | 81 | Cloudy |
| 6 | 86 | 73 | 80 | .059 | .18 | 81 | Cloudy |
| 7 | 91 | 73 | 82 | .071 | .03 | 82 | Cloudy |
| 8 | 80 | 74 | 77 | .114 | .15 | 82 | Cloudy |
| 9 | 82 | 73 | 78 | .016 | .25 | 82 | Cloudy |
| 10 | 87 | 72 | 80 | .074 | 0 | 82 | PtCldy |
| 11 | 89 | 72 | 82 | .056 | .01 | 82 | Pt.Cldy |
| 12 | 90 | 74 | 82 | .059 | 0 | 81 | Pt.Cldy |
| 13 | 82 | 75 | 78 | .049 | .03 | 81 | Cloudy |
| 14 | 88 | 73 | 80 | .112 | .56 | 81 | PtCloudy |
| 15 | 88 | 73 | 80 | .055 | .03 | 81 | Cloudy |
| 16 | 89 | 75 | 82 | .075 | .02 | 81 | Cloudy |
| 17 | 90 | 75 | 82 | .043 | T | 82 | Cloudy |
| 18 | 91 | 76 | 84 | .099 | .06 | 82 | Cloudy |
| 19 | 92 | 75 | 84 | .035 | 0 | 82 | Pt.Cldy |
| 20 | 88 | 76 | 82 | .138 | 0 | 82 | Pt.Cldy |
| 21 | 89 | 76 | 82 | .071 | .08 | 82 | Cloudy |
| 22 | 86 | 73 | 80 | .103 | .74 | 82 | Cloudy |
| 23 | 86 | 73 | 80 | .063 | T | 82 | Cloudy |
| 24 | 89 | 73 | 81 | .050 | .07 | 82 | Pt.Cldy |
| 25 | 87 | 74 | 80 | .075 | 0 | 82 | Pt.Cldy |
| 26 | 88 | 75 | 82 | .043 | 1.53 | 81 | Cloudy |
| 27 | 86 | 74 | 80 | .094 | .45 | 82 | Cloudy |
| 28 | 80 | 74 | 77 | .059 | .33 | 81 | Cloudy |
| 29 | 88 | 73 | 80 | .040 | T | 81 | Pt.Cldy |
| 30 | 92 | 74 | 84 | .067 | .01 | 82 | Cloudy |
| 31 | 92 | 76 | 84 | .090 | .48 | 82 | Pt.Cldy |
| Total | 2711 | 2295 | — | 2.198 | 5.83 | — | |
| Mean | 87.5 | 74.0 | 80.8 | .071 | — | 81.6 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.844
Highest 29.900 Date 29
Lowest 29.670 Date 19

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 80.8
Highest 92 Date 30
Lowest 72 Date 10
Greatest daily range 18 Date 7
Mean for this month for 42 years 80.3
Maximum for this month for 42 years 84
Minimum for this month for 42 years 68
Average excess or [redacted] of this month compared with a mean of 42 years +0.5

### PRECIPITATION
(Inches)

Total for this month 5.83
Greatest amount in 24 hours 1.53 Date 26
Average for this month for 42 years 5.83
Total from January 1, 1947 to date 27.86
Average from January 1 to date 35.92
Accumulated [redacted] or deficiency from January 1 to date compared with average -8.06

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 6.44 | 1917 | 7.42 | 1928 | 6.87 | 1939 | 5.12 |
| 1907 | 7.46 | 1918 | 5.81 | 1929 | 11.96 | 1940 | 5.79 |
| 1908 | 11.48 | 1919 | 5.82 | 1930 | 4.36 | 1941 | 11.65 |
| 1909 | 6.84 | 1920 | 12.28 | 1931 | 4.60 | 1942 | 5.40 |
| 1910 | 12.00 | 1921 | 8.21 | 1932 | 7.61 | 1943 | 6.50 |
| 1911 | 7.21 | 1922 | 1.48 | 1933 | 6.35 | 1944 | 14.47 |
| 1912 | 6.33 | 1923 | 5.37 | 1934 | 4.22 | 1945 | 6.37 |
| 1913 | 8.20 | 1924 | 14.46 | 1935 | 11.41 | 1946 | 6.56 |
| 1914 | 6.09 | 1925 | 10.83 | 1936 | 6.14 | 1947 | 5.83 |
| 1915 | 13.24 | 1926 | 10.43 | 1937 | 3.80 | 1948 | |
| 1916 | 10.53 | 1927 | 7.76 | 1938 | 11.82 | 1949 | |

### WIND

Prevailing direction NE
Total movement 3967 miles
Average hourly velocity 5.3 miles per hour
Maximum velocity for five minutes 24 miles per hour from N on 22

### MISCELLANEOUS

Total evaporation for this month 2.198 inches
Average daily evaporation .071 inches
Relative humidity, bihourly mean, percent 87.7
Sunshine, percentage of possible 42
Number of days clear 0 Partly cloudy 11 Cloudy 18
Number of days with .01 inch rain or more 21

### DATES

Fogs, light NONE
Fogs, dense NONE
Halos, lunar 4,7,11,14,15,18,21,23,26,27 & 3
Thunderstorms NONE FELT
Earthquakes

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month September, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 72 | 78 | .036 | 2.26 | 81 | Cloudy |
| 2 | 85 | 72 | 78 | .126 | 0 | 80 | Cloudy |
| 3 | 83 | 74 | 78 | .031 | .13 | 81 | Cloudy |
| 4 | 82 | 73 | 78 | .118 | .28 | 81 | Cloudy |
| 5 | 88 | 71 | 80 | .040 | 0 | 82 | Clear |
| 6 | 91 | 74 | 82 | .063 | .05 | 82 | Pt Cldy |
| 7 | 86 | 75 | 80 | .106 | .07 | 82 | Cloudy |
| 8 | 87 | 74 | 80 | .063 | .99 | 82 | Cloudy |
| 9 | 83 | 72 | 78 | .063 | .03 | 81 | Cloudy |
| 10 | 87 | 72 | 80 | .055 | .03 | 81 | Cloudy |
| 11 | 86 | 73 | 80 | .051 | .04 | 82 | Cloudy |
| 12 | 85 | 73 | 79 | .067 | .05 | 82 | Cloudy |
| 13 | 84 | 74 | 79 | .067 | .07 | 81 | Pt Cldy |
| 14 | 87 | 72 | 80 | .059 | .05 | 81 | Cloudy |
| 15 | 87 | 74 | 80 | .079 | T | 81 | Cloudy |
| 16 | 86 | 75 | 80 | .079 | .15 | 82 | Cloudy |
| 17 | 87 | 72 | 80 | .070 | 0 | 82 | Pt Cldy |
| 18 | 88 | 74 | 81 | .071 | 0 | 83 | Cloudy |
| 19 | 84 | 73 | 78 | .071 | .21 | 83 | Cloudy |
| 20 | 82 | 71 | 76 | .078 | .22 | 82 | Cloudy |
| 21 | 86 | 73 | 80 | .048 | 0 | 81 | Pt Cldy |
| 22 | 87 | 76 | 82 | .070 | T | 81 | Pt Cldy |
| 23 | 85 | 75 | 80 | .111 | .08 | 82 | Cloudy |
| 24 | 84 | 73 | 78 | .078 | 0 | 83 | Cloudy |
| 25 | 90 | 73 | 82 | .075 | .64 | 83 | Pt Cldy |
| 26 | 88 | 74 | 81 | .059 | .01 | 83 | Cloudy |
| 27 | 87 | 75 | 81 | .055 | T | 82 | Cloudy |
| 28 | 87 | 75 | 81 | .071 | 0 | 83 | Cloudy |
| 29 | 86 | 75 | 80 | .051 | .03 | 83 | Cloudy |
| 30 | 85 | 74 | 80 | .071 | 0 | 83 | Cloudy |
| 31 | | | | | | | |
| Total | 2578 | 2203 | - | 2.082 | 5.39 | - | |
| Mean | 85.9 | 73.4 | 79.6 | .069 | - | 81.9 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.872
Highest 29.980 Date 4
Lowest 29.730 Date 26

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean ([redacted]) 79.6
Highest 91 Date 6
Lowest 71 Date 20
Greatest daily range 17 Date 5
Mean for this month for 42 years 79.9
Maximum for this month for 42 years 94
Minimum for this month for 42 years 68
Average excess or deficiency of this month compared with a mean of 42 years - 0.3

### PRECIPITATION
(Inches)

Total for this month 5.39
Greatest amount in 24 hours 2.30 Date Aug.31-Sep.1
Average for this month for 51 years 8.00
Total from January 1, 1947 to date 32.95
Average from January 1 to date 43.92
Accumulated excess or deficiency from January 1 to date compared with average - 10.97

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.89 | 1917 11.53 | 1928 10.44 | 1939 8.12 |
| 1907 11.14 | 1918 7.03 | 1929 9.26 | 1940 13.99 |
| 1908 5.93 | 1919 10.84 | 1930 7.61 | 1941 8.01 |
| 1909 3.86 | 1920 9.14 | 1931 11.09 | 1942 8.11 |
| 1910 4.84 | 1921 3.27 | 1932 7.23 | 1943 7.88 |
| 1911 6.03 | 1922 8.18 | 1933 5.18 | 1944 6.08 |
| 1912 8.38 | 1923 4.60 | 1934 16.38 | 1945 5.14 |
| 1913 11.43 | 1924 12.55 | 1935 4.70 | 1946 2.62 |
| 1914 9.60 | 1925 9.01 | 1936 8.62 | 1947 5.39 |
| 1915 3.69 | 1926 8.41 | 1937 10.89 | 1948 |
| 1916 8.02 | 1927 6.53 | 1938 8.23 | 1949 |

### WIND

Prevailing direction NW
Total movement 3423 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity for five minutes 18 miles per hour from N on 25

### MISCELLANEOUS

Total evaporation for this month 2.082 inches
Average daily evaporation .069 inches
Relative humidity, bihourly mean, percent 88.0
Sunshine, percentage of possible 45
Number of days clear 1 Partly cloudy 6 Cloudy 23
Number of days with .01 inch rain or more 19

### DATES

Fogs, light 26th
Fogs, dense 0
Halos, lunar 0
Thunderstorms 1-4-7-8-10-12-14-18-19-25-27th
Earthquakes None Felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month October, 1947.

| DATE | TEMPERATURE (Degrees Fahrenheit) Max. | Min. | Mean | EVAPORATION (INCHES) For 24 hours Period Ending 8 a.m. | PRECIPITATION (INCHES) | TEMPERATURE OF SEA WATER, BIHOURLY MEAN | CHARACTER OF DAY |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 74 | 82 | .059 | .24 | 84 | Cloudy |
| 2 | 89 | 75 | 82 | .048 | .11 | 83 | Cloudy |
| 3 | 91 | 73 | 82 | .067 | .50 | 83 | Pt.Cldy. |
| 4 | 86 | 75 | 80 | .074 | .01 | 83 | Cloudy |
| 5 | 84 | 72 | 78 | .019 | 1.79 | 82 | Cloudy |
| 6 | 83 | 71 | 77 | .111 | 2.05 | 81 | Cloudy |
| 7 | 84 | 73 | 78 | .035 | .20 | 80 | Cloudy |
| 8 | 84 | 73 | 78 | .024 | .05 | 80 | Cloudy |
| 9 | 86 | 74 | 80 | .043 | T | 82 | Pt.Cldy. |
| 10 | 87 | 74 | 80 | .079 | .13 | 82 | Pt.Cldy. |
| 11 | 86 | 74 | 80 | .070 | .01 | 82 | Cloudy |
| 12 | 80 | 74 | 77 | .075 | .73 | 82 | Cloudy |
| 13 | 79 | 73 | 76 | .044 | .18 | 81 | Cloudy |
| 14 | 85 | 72 | 78 | .031 | 1.60 | 81 | Cloudy |
| 15 | 83 | 73 | 78 | .043 | .03 | 82 | Cloudy |
| 16 | 84 | 74 | 79 | .036 | .12 | 82 | Cloudy |
| 17 | 86 | 74 | 80 | .051 | 0 | 83 | Pt.Cldy. |
| 18 | 86 | 73 | 80 | .079 | .63 | 83 | Pt.Cldy. |
| 19 | 83 | 73 | 78 | .086 | .46 | 83 | Cloudy |
| 20 | 84 | 73 | 78 | .044 | .07 | 82 | Cloudy |
| 21 | 88 | 73 | 80 | .067 | .12 | 82 | Pt.Cldy. |
| 22 | 83 | 72 | 78 | .070 | .01 | 81 | Cloudy |
| 23 | 85 | 74 | 80 | .032 | .02 | 82 | Cloudy |
| 24 | 84 | 73 | 78 | .051 | T | 83 | Cloudy |
| 25 | 85 | 73 | 79 | .059 | 0 | 82 | Pt.Cldy. |
| 26 | 86 | 73 | 80 | .047 | 0 | 82 | Pt.Cldy. |
| 27 | 82 | 74 | 78 | .091 | T | 82 | Cloudy |
| 28 | 84 | 74 | 79 | .047 | .06 | 82 | Cloudy |
| 29 | 82 | 74 | 78 | .047 | .01 | 82 | Cloudy |
| 30 | 82 | 73 | 78 | .036 | .33 | 82 | Cloudy |
| 31 | 85 | 74 | 80 | .031 | .22 | 82 | Pt.Cldy. |
| TOTAL | 2627 | 2274 | — | 1.696 | 9.60 | — | |
| MEAN | 84.7 | 73.4 | 79.0 | .055 | — | 82.1 | |

### ATMOSPHERIC PRESSURE
(reduced to sea level)

Bihourly mean 29.960 29.935

Highest 29.660 Date 20

Lowest Date 3

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 79.0

Highest 91 Date 3

Lowest 71 Date 6

Greatest daily range 18 Date 3

Mean for this month for 42 years 79.3

Maximum for this month for 42 years 95

Minimum for this month for 42 years 68

Average excess or deficiency of this month compared with a mean of years 0.3

### PRECIPITATION
(Inches) 9.60

Total for this month 2.35

Greatest amount in 24 hours 2.35 Date 5-6

Average for this month for 47 10.35

Total from January 1, 19 to date 42.63

Average from January 1 to date 54.27

Accumulated excess or deficiency from January 1 to date compared with average 12.64

Total precipitation in this month: 10.70 12.93

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 9.86 | 1917 | 9.16 | 1928 | 7.89 | 1939 | 6.43 |
| 1907 | 8.79 | 1918 | 12.11 | 1929 | 8.21 | 1940 | 12.74 |
| 1908 | 8.77 | 1919 | 6.48 | 1930 | 9.26 | 1941 | 7.99 |
| 1909 | 8.86 | 1920 | 13.86 | 1931 | 11.60 | 1942 | 10.37 |
| 1910 | 10.90 | 1921 | 1.03 | 1932 | 3.88 | 1943 | 11.29 |
| 1911 | 17.89 | 1922 | 15.02 | 1933 | 11.44 | 1944 | 17.36 |
| 1912 | 8.30 | 1923 | 10.38 | 1934 | 10.73 | 1945 | 14.92 |
| 1913 | 6.44 | 1924 | 7.37 | 1935 | 9.48 | 1946 | 9.68 |
| 1914 | 10.49 | 1925 | 9.93 | 1936 | 9.33 | 1947 | |
| 1915 | 10.17 | 1926 | 8.36 | 1937 | 12.72 | 1948 | |
| 1916 | | 1927 | | 1938 | | 1949 | |

Prevailing direction South 3221

Total movement 4.3 miles

Average hourly velocity 25 miles per hour

Maximum velocity for five minutes 3 miles per hour from on

### MISCELLANEOUS

Total evaporation for this month 1.696 .055 inches

Average daily evaporation 90.5 inches

Relative humidity, bihourly mean, percent 35

Sunshine, percentage of possible 9 22

Number of days clear Partly cloudy 25 Cloudy

Number of days with .01 inch rain or more

### DATES

Fogs, light None

Fogs, dense None

Halos, lunar 1-2-3-4-5-10-21-28-29-30

Thunderstorms None Fall

Earthquakes

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS; Month NOVEMBER, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 80 | .040 | .37 | 81 | Cloudy |
| 2 | 84 | 74 | 79 | .051 | .09 | 81 | Cloudy |
| 3 | 88 | 74 | 81 | .047 | 0 | 82 | Cloudy |
| 4 | 90 | 74 | 83 | .055 | .37 | 82 | Cloudy |
| 5 | 80 | 73 | 76 | .083 | .11 | 81 | Cloudy |
| 6 | 82 | 75 | 78 | .035 | .20 | 80 | Cloudy |
| 7 | 85 | 74 | 80 | .032 | .01 | 80 | Cloudy |
| 8 | 86 | 73 | 80 | .043 | 1.02 | 80 | Cloudy |
| 9 | 87 | 74 | 80 | .024 | .41 | 80 | Pt.Cloudy |
| 10 | 87 | 72 | 80 | .063 | .17 | 80 | Cloudy |
| 11 | 87 | 73 | 80 | .063 | T | 80 | Pt.Cloudy |
| 12 | 88 | 71 | 80 | .078 | 0 | 81 | Pt.Cloudy |
| 13 | 86 | 73 | 80 | .071 | .51 | 81 | Pt.Cloudy |
| 14 | 90 | 73 | 82 | .063 | 3.08 | 81 | Pt.Cloudy |
| 15 | 82 | 74 | 78 | .051 | .20 | 78 | Cloudy |
| 16 | 83 | 74 | 78 | .040 | .20 | 80 | Cloudy |
| 17 | 85 | 72 | 78 | .075 | .04 | 81 | Cloudy |
| 18 | 88 | 74 | 81 | .047 | T | 80 | Cloudy |
| 19 | 88 | 74 | 81 | .059 | .01 | 80 | Cloudy |
| 20 | 88 | 74 | 81 | .079 | .45 | 80 | Cloudy |
| 21 | 86 | 74 | 80 | .051 | .15 | 80 | Cloudy |
| 22 | 86 | 74 | 80 | .078 | .40 | 80 | Cloudy |
| 23 | 87 | 73 | 80 | .044 | 0 | 81 | Pt.Cloudy |
| 24 | 89 | 72 | 80 | .055 | .76 | 81 | Cloudy |
| 25 | 83 | 71 | 77 | .055 | .10 | 80 | Pt.Cloudy |
| 26 | 84 | 72 | 78 | .047 | 0 | 82 | Pt.Cloudy |
| 27 | 84 | 72 | 78 | .047 | .12 | 82 | Pt.Cloudy |
| 28 | 85 | 71 | 78 | .099 | .01 | 82 | Pt.Cloudy |
| 29 | 88 | 69 | 78 | .090 | 1.41 | 81 | Pt.Cloudy |
| 30 | 85 | 70 | 78 | .071 | .08 | 81 | Cloudy |
| 31 | | | | | | | |
| Sum | 2577 | 2191 | -- | 1.736 | 10.25 | -- | |
| Mean | 85.9 | 73.0 | 79.4 | .058 | -- | 80.7 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.832
Highest 29.970 Date 25
Lowest 29.710 Date 4

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 79.4
Highest 90 Date 4
Lowest 69 Date 29
Greatest daily range 19 Date 29
Mean for this month for 42 years 79.2
Maximum for this month for 42 years 94
Minimum for this month for 42 years 67
Average excess or deficiency of this month compared with a mean of 42 years + 0.2

### PRECIPITATION
(Inches)

Total for this month 10.25
Greatest amount in 24 hours 3.10 Date 14-15
Average for this month for 51 years 10.10
Total from January 1, 1947 to date 52.88
Average from January 1 to date 64.37
Accumulated excess or deficiency from January 1 to date compared with average - 11.49

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 13.57 | 1917 | 13.77 | 1928 | 20.51 | 1939 | 6.55 |
| 1907 | 10.51 | 1918 | 9.61 | 1929 | 12.62 | 1940 | 5.55 |
| 1908 | 9.12 | 1919 | 4.97 | 1930 | 5.12 | 1941 | 7.55 |
| 1909 | 15.14 | 1920 | 19.22 | 1931 | 12.60 | 1942 | 8.41 |
| 1910 | 4.89 | 1921 | 7.11 | 1932 | 10.18 | 1943 | 7.57 |
| 1911 | 7.57 | 1922 | 8.44 | 1933 | 13.28 | 1944 | 7.76 |
| 1912 | 6.38 | 1923 | 8.81 | 1934 | 12.89 | 1945 | 9.40 |
| 1913 | 10.63 | 1924 | 12.63 | 1935 | 19.70 | 1946 | 8.06 |
| 1914 | 10.35 | 1925 | 3.52 | 1936 | 8.29 | 1947 | 10.25 |
| 1915 | 7.05 | 1926 | 9.63 | 1937 | 10.18 | 1948 | |
| 1916 | 8.77 | 1927 | 5.82 | 1938 | 11.23 | 1949 | |

### WIND

Prevailing direction NW
Total movement 3026 miles
Average hourly velocity 4.2 miles per hour
Maximum velocity for five minutes 19 miles per hour from N on 18

### MISCELLANEOUS

Total evaporation for this month 1.736 inches
Average daily evaporation .058 inches
Relative humidity, bihourly mean, percent 89.8
Sunshine, percentage of possible 33
Number of days clear 0 Partly cloudy 11 Cloudy 19
Number of days with .01 inch rain or more 24

### DATES

Fogs, light 3-12-18
Fogs, dense 18
Halos, lunar 0
Thunderstorms 1-2-4-6-7-8-11-14-17-18-20-22-23-30
Earthquakes 1

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MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month December, 1947

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 83 | 68 | 76 | .071 | T | 81 | Pt.Cldy. |
| 2 | 86 | 71 | 78 | .067 | 0 | 82 | Pt.Cldy. |
| 3 | 88 | 70 | 79 | .079 | 1.01 | 81 | Pt.Cldy. |
| 4 | 89 | 71 | 80 | .043 | .12 | 81 | Pt.Cldy. |
| 5 | 87 | 72 | 80 | .059 | T | 81 | Pt.Cldy. |
| 6 | 86 | 74 | 80 | .110 | .72 | 80 | Pt.Cldy. |
| 7 | 86 | 74 | 80 | .059 | .04 | 79 | Cloudy |
| 8 | 88 | 75 | 82 | .059 | .27 | 78 | Pt.Cldy. |
| 9 | 78 | 72 | 75 | .059 | .13 | 78 | Cloudy |
| 10 | 82 | 72 | 77 | .040 | T | 78 | Pt.Cldy. |
| 11 | 84 | 72 | 78 | .043 | 0 | 79 | Pt.Cldy. |
| 12 | 87 | 71 | 79 | .067 | 0 | 79 | Pt.Cldy. |
| 13 | 87 | 72 | 80 | .051 | .01 | 79 | Pt.Cldy. |
| 14 | 87 | 73 | 80 | .094 | .01 | 80 | Pt.Cldy. |
| 15 | 89 | 73 | 81 | .056 | T | 79 | Pt.Cldy. |
| 16 | 88 | 73 | 80 | .090 | .09 | 80 | Pt.Cldy. |
| 17 | 89 | 74 | 82 | .059 | .26 | 80 | Pt.Cldy. |
| 18 | 90 | 73 | 82 | .087 | .06 | 80 | Pt.Cldy. |
| 19 | 88 | 73 | 80 | .098 | .01 | 80 | Pt.Cldy. |
| 20 | 86 | 72 | 79 | .059 | 0 | 80 | Pt.Cldy. |
| 21 | 86 | 71 | 78 | .099 | .01 | 80 | Cloudy |
| 22 | 86 | 71 | 78 | .067 | .37 | 80 | Cloudy |
| 23 | 87 | 71 | 79 | .039 | 1.26 | 81 | Pt.Cldy. |
| 24 | 86 | 72 | 79 | .067 | .46 | 81 | Pt.Cldy. |
| 25 | 88 | 72 | 80 | .051 | .58 | 81 | Pt.Cldy. |
| 26 | 88 | 73 | 80 | .056 | 0 | 80 | pt.Cldy. |
| 27 | 85 | 73 | 79 | .092 | .17 | 80 | Cloudy |
| 28 | 86 | 73 | 80 | .061 | T | 80 | Clear |
| 29 | 88 | 72 | 80 | .075 | 0 | 81 | Pt.Cldy. |
| 30 | 87 | 70 | 78 | .108 | 0 | 81 | Pt.Cldy. |
| 31 | 84 | 71 | 78 | .126 | T | 81 | Cloudy |
| Total | 2679 | 2234 | - | 2.185 | 5.58 | - | |
| Mean | 86.4 | 72.1 | 79.2 | .070 | - | 80.1 | |

**ATMOSPHERIC PRESSURE**
(Inches, reduced to sea level)

Bihourly mean 29.808
Highest 29.940 Date 3
Lowest 29.650 Date 16

**TEMPERATURE**
(Degrees Fahrenheit)

Monthly mean 79.2
Highest 90 Date 18
Lowest 68 Date 1
Greatest daily range 18 Date 3
Mean for this month for 42 years 79.9
Maximum for this month for 42 years 86
Minimum for this month for 42 years 68
Average excess or deficiency of this month compared with a mean of 42 years - 0.7

**PRECIPITATION**
(Inches)

Total for this month 5.58
Greatest amount in 24 hours 1.61 Date 22-23
Average for this month for 51 years 4.87
Total from January 1, 1947 to date 58.46
Average from January 1 to date 69.24
Accumulated excess or deficiency from January 1 to date compared with average -10.78

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 3.22 | 1917 4.09 | 1928 6.95 | 1939 6.23 |
| 1907 3.46 | 1918 .53 | 1929 4.17 | 1940 .80 |
| 1908 2.16 | 1919 1.81 | 1930 2.44 | 1941 5.40 |
| 1909 12.39 | 1920 2.94 | 1931 4.99 | 1942 11.25 |
| 1910 10.63 | 1921 5.10 | 1932 2.66 | 1943 8.93 |
| 1911 1.99 | 1922 3.82 | 1933 7.35 | 1944 4.10 |
| 1912 3.27 | 1923 3.96 | 1934 2.71 | 1945 7.51 |
| 1913 4.84 | 1924 8.51 | 1935 4.31 | 1946 5.17 |
| 1914 8.28 | 1925 1.88 | 1936 2.84 | 1947 5.58 |
| 1915 3.60 | 1926 8.38 | 1937 16.81 | 1948 |
| 1916 5.80 | 1927 2.95 | 1938 7.91 | 1949 |

**WIND**

Prevailing direction NW
Total movement 571
Average hourly velocity 5.2 miles
Maximum velocity for five minutes 19 miles per hour
per hour from E on 22

**MISCELLANEOUS**

Total evaporation for this month 2.185 inches
Average daily evaporation .070 inches
Relative humidity, bihourly mean, percent 86.0
Sunshine, percentage of possible 62
Number of days clear 1 Partly cloudy 24 Cloudy 6
Number of days with .01 inch rain or more 18

**DATES**

Fogs, light 22
Fogs, dense None
Halos, lunar None
Thunderstorms 2, 6, 7, 21, 23 & 25
Earthquakes None 7 & 16.

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z. ; Month January, 1948

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 72 | 80 | .071 | T | 81 | Pt.Cldy. |
| 2 | 89 | 72 | 80 | .071 | .23 | 81 | Cloudy |
| 3 | 88 | 72 | 80 | .059 | .10 | 81 | Cloudy |
| 4 | 88 | 72 | 80 | .106 | .09 | 80 | Clear |
| 5 | 88 | 73 | 80 | .091 | 0 | 80 | Clear |
| 6 | 89 | 73 | 81 | .138 | 0 | 80 | Pt.Cldy. |
| 7 | 88 | 73 | 80 | .114 | T | 80 | Clear |
| 8 | 88 | 74 | 81 | .102 | 0 | 80 | Clear |
| 9 | 89 | 73 | 81 | .126 | 0 | 80 | Clear |
| 10 | 89 | 73 | 81 | .107 | 0 | 80 | Clear |
| 11 | 87 | 73 | 80 | .137 | 0 | 79 | Clear |
| 12 | 89 | 73 | 81 | .110 | 0 | 79 | Clear |
| 13 | 89 | 74 | 82 | .142 | 0 | 79 | Clear |
| 14 | 89 | 75 | 82 | .106 | 0 | 79 | Clear |
| 15 | 86 | 74 | 80 | .177 | 0 | 79 | Cloudy |
| 16 | 89 | 71 | 80 | .145 | T | 79 | Clear |
| 17 | 90 | 72 | 81 | .126 | 0 | 79 | Clear |
| 18 | 90 | 72 | 81 | .067 | 0 | 79 | Clear |
| 19 | 88 | 72 | 80 | .150 | 0 | 78 | Clear |
| 20 | 86 | 73 | 80 | .193 | .01 | 78 | Pt.Cldy. |
| 21 | 90 | 70 | 80 | .106 | 0 | 78 | Clear |
| 22 | 88 | 70 | 79 | .122 | 0 | 77 | Pt.Cldy. |
| 23 | 88 | 70 | 79 | .114 | 0 | 78 | Clear |
| 24 | 88 | 69 | 78 | 0.79 | 0 | 79 | Clear |
| 25 | 89 | 70 | 80 | .101 | 0 | 78 | Clear |
| 26 | 87 | 71 | 79 | .063 | .66 | 78 | Pt.Cldy. |
| 27 | 87 | 72 | 80 | .094 | 0 | 78 | Pt.Cldy. |
| 28 | 90 | 72 | 81 | .110 | .17 | 79 | Pt.Cldy. |
| 29 | 90 | 73 | 82 | .032 | 0 | 80 | Pt.Cldy. |
| 30 | 90 | 74 | 82 | .090 | 0 | 80 | Pt.Cldy. |
| 31 | 91 | 74 | 82 | .136 | 0 | 80 | Pt.Cldy. |
| Sum | 2745 | 2241 | - | 3.325 | 1.26 | - | |
| Mean | 88.5 | 72.3 | 80.4 | .107 | - | 79.2 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.825
Highest 29.940 Date 20
Lowest 29.700 Date 9

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 80.4
Highest 91 Date 31
Lowest 69 Date 24
Greatest daily range 20 Date 21
Mean for this month for 43 years 79.9
Maximum for this month for 43 years 93
Minimum for this month for 43 years 63
Average excess or deficiency of this month compared with a mean of 43 years + 0.5

### PRECIPITATION
(Inches)

Total for this month 1.26
Greatest amount in 24 hours .66 Date 26
Average for this month for 50 years 1.05
Total from January 1, 19____ to date 1.26
Average from January 1 to date 1.05
Accumulated excess or deficiency from January 1 to date compared with average + 0.21

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .43 | 1917 .13 | 1928 .02 | 1939 .43 |
| 1907 .29 | 1918 1.78 | 1929 .17 | 1940 3.14 |
| 1908 .12 | 1919 .28 | 1930 .05 | 1941 .87 |
| 1909 2.90 | 1920 T | 1931 T | 1942 .30 |
| 1910 1.22 | 1921 .88 | 1932 .38 | 1943 1.20 |
| 1911 .83 | 1922 1.73 | 1933 1.63 | 1944 .79 |
| 1912 T | 1923 .80 | 1934 4.04 | 1945 .75 |
| 1913 .63 | 1924 T | 1935 .88 | 1946 1.23 |
| 1914 .32 | 1925 1.44 | 1936 .83 | 1947 .05 |
| 1915 2.12 | 1926 .01 | 1937 5.07 | 1948 1.26 |
| 1916 1.41 | 1927 .18 | 1938 2.20 | 1949 |

### WIND

Prevailing direction NW
Total movement 5736 miles
Average hourly velocity 7.7 miles per hour
Maximum velocity for five minutes 21 miles per hour from NW on 14

### MISCELLANEOUS

Total evaporation for this month 3.325 inches
Average daily evaporation .107 inches
Relative humidity, bihourly mean, percent 80.7
Sunshine, percentage of possible 70
Number of days clear 18 Partly cloudy 10 Cloudy 3
Number of days with .01 inch rain or more 6

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms None
Earthquakes None felt

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MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month FEBRUARY, 1948

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 82 | .126 | 0 | 79 | Clear |
| 2 | 90 | 73 | 81 | .138 | 0 | 79 | Clear |
| 3 | 91 | 75 | 83 | .154 | 0 | 79 | Clear |
| 4 | 90 | 76 | 83 | .197 | 0 | 79 | Clear |
| 5 | 89 | 76 | 82 | .169 | 0 | 80 | Clear |
| 6 | 89 | 75 | 82 | .185 | 0 | 79 | Clear |
| 7 | 89 | 76 | 82 | .240 | 0 | 78 | Cloudy |
| 8 | 90 | 72 | 81 | .197 | 0 | 76 | Clear |
| 9 | 89 | 72 | 80 | .177 | 0 | 76 | Pt.Cldy. |
| 10 | 90 | 72 | 81 | .134 | 0 | 76 | Clear |
| 11 | 90 | 72 | 81 | .197 | 0 | 76 | Pt.Cldy. |
| 12 | 89 | 72 | 80 | .145 | 0 | 75 | Pt.Cldy. |
| 13 | 91 | 72 | 82 | .130 | 0 | 75 | Clear |
| 14 | 90 | 72 | 81 | .205 | 0 | 76 | Pt.Cldy. |
| 15 | 90 | 72 | 81 | .175 | 0 | 77 | Pt.Cldy. |
| 16 | 90 | 73 | 81 | .146 | 0 | 77 | Pt.Cldy. |
| 17 | 90 | 73 | 81. | .171 | 0 | 77 | Clear |
| 18 | 90 | 73 | 81. | .201 | 0 | 76 | Clear |
| 19 | 90 | 70 | 80 | .220 | 0 | 76 | Pt.Cldy. |
| 20 | 90 | 71 | 80 | .162 | 0 | 75 | Pt.Cldy. |
| 21 | 91 | 70 | 80 | .185 | 0 | 75 | Clear |
| 22 | 90 | 67 | 78 | .255 | 0 | 75 | Pt.Cldy. |
| 23 | 90 | 68 | 79 | .148 | 0 | 76 | Pt.Cldy. |
| 24 | 91 | 68 | 80 | .152 | 0 | 75 | Pt.Cldy. |
| 25 | 92 | 69 | 80 | .234 | 0 | 75 | Pt.Cldy. |
| 26 | 92 | 69 | 80 | .157 | 0 | 74 | Pt.Cldy. |
| 27 | 88 | 72 | 80 | .225 | .02 | 75 | Pt.Cldy. |
| 28 | 90 | 71 | 80 | .177 | 0 | 75 | Clear |
| 29 | 88 | 71 | 80 | .208 | 0 | 75 | Clear |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Total | 2609 | 2086 | - | 5.212 | .02 | - | |
| Mean | 90.0 | 71.9 | 81.0 | .180 | - | 76.4 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.842
Highest 29.995 Date 25
Lowest 29.770 Date 3

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 81.0
Highest 92 Date 25
Lowest 67 Date 22
Greatest daily range 23 Date 25
Mean for this month for 43 years 80.3
Maximum for this month for 43 years 85
Minimum for this month for 43 years 64
Average excess or deficiency of this month compared with a mean of 43 years + 0.7

### PRECIPITATION
(Inches)

Total for this month .02
Greatest amount in 24 hours .02 Date 27
Average for this month for 50 years .58
Total from January 1, 1948 to date 1.28
Average from January 1 to date 1.63
Accumulated excess or deficiency from January 1 to date compared with average - .35

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 .33 | 1917 .19 | 1928 .32 | 1939 T |
| 1907 .04 | 1918 T | 1929 .02 | 1940 .11 |
| 1908 .26 | 1919 T | 1930 .05 | 1941 .23 |
| 1909 .290 | 1920 T | 1931 T | 1942 .14 |
| 1910 .43 | 1921 2.37 | 1932 .46 | 1943 .09 |
| 1911 2.12 | 1922 2.03 | 1933 .30 | 1944 T |
| 1912 .08 | 1923 T | 1934 .07 | 1945 .11 |
| 1913 .22 | 1924 .05 | 1935 .26 | 1946 .03 |
| 1914 .02 | 1925 .07 | 1936 T | 1947 .23 |
| 1915 2.96 | 1926 .07 | 1937 .56 | 1948 .02 |
| 1916 1.18 | 1927 1.99 | 1938 .01 | 1949 |

### WIND

Prevailing direction E
Total movement 6452 miles
Average hourly velocity 9.3 miles per hour
Maximum velocity for five minutes 25 miles per hour from E on 6th

### MISCELLANEOUS

Total evaporation for this month 5.212 inches
Average daily evaporation .180 inches
Relative humidity, bihourly mean, percent 77.0
Sunshine, percentage of possible 63
Number of days clear 13 Partly cloudy 14 Cloudy 2
Number of days with .01 inch rain or more 1

### DATES

Fogs, light -
Fogs, dense -
Halos, lunar -
Thunderstorms -
Earthquakes None felt

MAR 1948 METEOROLOGICAL BUREAU

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C.Z. Month MARCH, 1948

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 82 | .099 | T | 75 | Pt. Cldy. |
| 2 | 90 | 72 | 81 | .173 | 0 | 74 | Pt. Cldy. |
| 3 | 92 | 72 | 82 | .122 | 0 | 75 | Pt. Cldy. |
| 4 | 92 | 74 | 83 | .224 | 0 | 74 | Pt. Cldy. |
| 5 | 91 | 73 | 82 | .134 | 0 | 74 | Pt. Cldy. |
| 6 | 93 | 72 | 82 | .240 | 0 | 73 | Clear |
| 7 | 90 | 73 | 82 | .122 | 0 | 74 | Pt. Cldy. |
| 8 | 92 | 73 | 82 | .197 | 0 | 75 | Pt. Cldy. |
| 9 | 91 | 73 | 82 | .154 | 0 | 74 | Pt. Cldy. |
| 10 | 92 | 73 | 82 | .216 | 0 | 75 | Pt. Cldy. |
| 11 | 90 | 71 | 80 | .189 | 0 | 75 | Pt. Cldy. |
| 12 | 92 | 72 | 82 | .181 | 0 | 75 | Pt. Cldy. |
| 13 | 90 | 73 | 82 | .205 | 0 | 74 | Pt. Cldy. |
| 14 | 91 | 73 | 82 | .216 | 0 | 74 | Pt. Cldy. |
| 15 | 91 | 73 | 82 | .241 | 0 | 75 | Pt. Cldy. |
| 16 | 90 | 75 | 82 | .213 | 0 | 75 | Pt. Cldy. |
| 17 | 92 | 74 | 83 | .173 | 0 | 74 | Clear |
| 18 | 93 | 74 | 84 | .244 | 0 | 74 | Clear |
| 19 | 92 | 74 | 83 | .260 | 0 | 73 | Pt. Cldy. |
| 20 | 90 | 70 | 80 | .275 | 0 | 73 | Pt. Cldy. |
| 21 | 93 | 69 | 81 | .193 | 0 | 72 | Pt. Cldy. |
| 22 | 94 | 71 | 82 | .201 | 0 | 72 | Clear |
| 23 | 93 | 71 | 82 | .218 | 0 | 72 | Pt. Cldy. |
| 24 | 91 | 71 | 81 | .199 | 0 | 72 | Pt. Cldy. |
| 25 | 93 | 71 | 82 | .189 | 0 | 72 | Clear |
| 26 | 93 | 72 | 82 | .209 | 0 | 72 | Clear |
| 27 | 93 | 73 | 83 | .220 | 0 | 72 | Pt. Cldy. |
| 28 | 90 | 74 | 82 | .237 | 0 | 73 | Pt. Cldy. |
| 29 | 92 | 74 | 83 | .161 | 0 | 73 | Pt. Cldy. |
| 30 | 92 | 75 | 83 | .122 | 0 | 73 | Pt. Cldy. |
| 31 | 95 | 75 | 85 | .161 | 0 | 73 | Clear |
| Total | 2843 | 2254 | - | 5.988 | T | - | |
| Mean | 91.7 | 72.7 | 82.2 | .193 | - | 73.6 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.836
Highest 29.960 Date 20
Lowest 29.690 Date 31

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 82.2
Highest 95 Date 31
Lowest 69 Date 21
Greatest daily range 24 Date 21
Mean for this month for 43 years 81.5
Maximum for this month for 43 years 86
Minimum for this month for 43 years 65
Average excess or deficiency of this month compared with a mean of 43 years +0.7

### PRECIPITATION
(Inches)

Total for this month Trace
Greatest amount in 24 hours T Date 2
Average for this month for 50 years .68
Total from January 1, 1948 to date 1.28
Average from January 1 to date 2.31
Accumulated excess or deficiency from January 1 to date compared with average - 1.03

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | .05 | 1917 | .02 | 1928 | 4.07 | 1939 | T |
| 1907 | T | 1918 | 1.25 | 1929 | 2.19 | 1940 | .75 |
| 1908 | .03 | 1919 | T | 1930 | .01 | 1941 | .17 |
| 1909 | .18 | 1920 | .09 | 1931 | .70 | 1942 | 1.92 |
| 1910 | 1.83 | 1921 | 2.88 | 1932 | .13 | 1943 | 1.50 |
| 1911 | .26 | 1922 | 1.02 | 1933 | .46 | 1944 | T |
| 1912 | .01 | 1923 | T | 1934 | .20 | 1945 | T |
| 1913 | .45 | 1924 | .07 | 1935 | T | 1946 | 1.09 |
| 1914 | T | 1925 | .07 | 1936 | .36 | 1947 | .02 |
| 1915 | T | 1926 | 0 | 1937 | 2.44 | 1948 | T |
| 1916 | .89 | 1927 | .02 | 1938 | .25 | 1949 | |

### WIND

Prevailing direction N
Total movement 72.82 miles
Average hourly velocity 9.8 miles per hour
Maximum velocity for five minutes 30 miles per hour from N on 14th

### MISCELLANEOUS

Total evaporation for this month 5.988 inches
Average daily evaporation .193 inches
Relative humidity, bihourly mean, percent 75.4
Sunshine, percentage of possible 76
Number of days clear 7 Partly cloudy 24 Cloudy 0
Number of days with .01 inch rain or more 0

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 0
Thunderstorms None
Earthquakes Felt

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MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month APRIL, 1948

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 76 | 84 | .189 | 0 | 73 | Clear |
| 2 | 92 | 76 | 84 | .154 | 0 | 74 | Pt.Cldy. |
| 3 | 94 | 75 | 84 | .201 | 0 | 74 | Clear |
| 4 | 92 | 72 | 82 | .275 | 0 | 74 | Pt.Cldy. |
| 5 | 93 | 72 | 82 | .240 | 0 | 74 | Clear |
| 6 | 92 | 71 | 82 | .221 | 0 | 74 | Clear |
| 7 | 94 | 72 | 83 | .295 | 0 | 76 | Clear |
| 8 | 94 | 74 | 84 | .209 | 0 | 76 | Pt.Cldy. |
| 9 | 93 | 73 | 83 | .248 | 0 | 76 | Pt.Cldy. |
| 10 | 93 | 74 | 84 | .260 | T | 78 | Cldy. |
| 11 | 90 | 73 | 82 | .201 | 0 | 78 | Pt.Cldy. |
| 12 | 92 | 72 | 82 | .134 | 0 | 79 | Pt.Cldy. |
| 13 | 92 | 73 | 82 | .142 | T | 79 | Pt.Cldy. |
| 14 | 94 | 74 | 84 | .177 | T | 78 | Cldy. |
| 15 | 90 | 74 | 82 | .197 | 0 | 77 | Cldy. |
| 16 | 94 | 71 | 82 | .220 | 0 | 78 | Pt.Cldy. |
| 17 | 92 | 71 | 82 | .292 | 0 | 77 | Pt.Cldy. |
| 18 | 93 | 70 | 82 | .248 | 0 | 78 | Pt.Cldy. |
| 19 | 86 | 70 | 78 | .240 | .07 | 78 | Pt.Cldy. |
| 20 | 93 | 70 | 82 | .130 | 0 | 77 | Pt.Cldy. |
| 21 | 92 | 69 | 80 | .200 | 0 | 76 | Clear |
| 22 | 90 | 70 | 80 | .193 | 0 | 77 | Pt.Cldy. |
| 23 | 93 | 71 | 82 | .158 | 0 | 77 | Pt.Cldy. |
| 24 | 95 | 74 | 84 | .189 | 0 | 78 | Cldy. |
| 25 | 95 | 76 | 86 | .157 | 0 | 78 | Pt.Cldy. |
| 26 | 91 | 76 | 84 | .236 | T | 78 | Cldy. |
| 27 | 97 | 76 | 86 | .142 | 0 | 80 | Cldy. |
| 28 | 92 | 76 | 84 | .169 | 0 | 79 | Cldy. |
| 29 | 87 | 76 | 82 | .178 | .04 | 79 | Cldy. |
| 30 | 91 | 76 | 84 | .119 | 0 | 80 | Pt.Cldy. |
| 31 | | | | | | | |
| Total | 2769 | 2193 | — | 6.014 | .11 | — | |
| Mean | 92.3 | 73.1 | 81.8 | .200 | .— | 77.0 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.853
Highest 29.970 Date 18
Lowest 29.710 Date 25

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Mean) 81.8
Highest 97 Date 27
Lowest 69 Date 21
Greatest daily range 23 Date 18
Mean for this month for 43 years 82.0
Maximum for this month for 43 years 97
Minimum for this month for 43 years 64
Average excess or deficiency of this month compared with a mean of 43 years − 0.2

### PRECIPITATION
(Inches)

Total for this month .11
Greatest amount in 24 hours .07 Date 19
Average for this month for 50 years 2.75
Total from January 1, 1948 to date 1.39
Average from January 1 to date 5.06
Accumulated excess or deficiency from January 1 to date compared with average − 3.67

Total precipitation in this month in:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1906 | 7.76 | 1917 | 2.24 | 1928 | 3.38 | 1939 | .94 |
| 1907 | T | 1918 | 4.52 | 1929 | .43 | 1940 | 1.03 |
| 1908 | 1.37 | 1919 | 6.43 | 1930 | 6.78 | 1941 | 4.74 |
| 1909 | 2.92 | 1920 | 3.02 | 1931 | 1.45 | 1942 | 2.25 |
| 1910 | 3.71 | 1921 | 1.19 | 1932 | 7.56 | 1943 | 3.60 |
| 1911 | 6.34 | 1922 | .16 | 1933 | 3.46 | 1944 | 3.59 |
| 1912 | 2.68 | 1923 | .83 | 1934 | 5.09 | 1945 | 1.84 |
| 1913 | .03 | 1924 | 3.12 | 1935 | 4.40 | 1946 | .91 |
| 1914 | 4.80 | 1925 | 2.63 | 1936 | 1.64 | 1947 | 1.79 |
| 1915 | 5.37 | 1926 | .08 | 1937 | 1.32 | 1948 | .11 |
| 1916 | 2.84 | 1927 | 4.67 | 1938 | 1.93 | 1949 | |

### WIND

Prevailing direction NW
Total movement 5936 miles
Average hourly velocity 8.2 miles per hour
Maximum velocity for five minutes 24 miles per hour from NW on 8

### MISCELLANEOUS

Total evaporation for this month 6.014 inches
Average daily evaporation .200 inches
Relative humidity, bihourly mean, percent 73.9
Sunshine, percentage of possible 86
Number of days clear 6 Partly cloudy 16 Cloudy 8
Number of days with .01 inch rain or more 2

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 12th
Earthquakes None felt.

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z.; Month MAY, 1948

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 75 | 84 | .185 | .02 | 80 | Cldy |
| 2 | 94 | 76 | 85 | .149 | 0 | 80 | Pt.Cldy |
| 3 | 95 | 76 | 86 | .142 | T | 80 | Cldy |
| 4 | 92 | 75 | 84 | .169 | .01 | 80 | Cldy |
| 5 | 91 | 76 | 84 | .142 | 0 | 80 | Cldy |
| 6 | 92 | 76 | 84 | .106 | .09 | 81 | Cldy |
| 7 | 91 | 75 | 83 | .067 | 0 | 81 | Pt.Cldy |
| 8 | 90 | 71 | 80 | .146 | 1.36 | 80 | Cldy |
| 9 | 88 | 75 | 82 | .063 | 0 | 80 | Pt.Cldy |
| 10 | 86 | 75 | 80 | .110 | .03 | 81 | Cldy |
| 11 | 88 | 74 | 81 | .083 | .09 | 81 | Cldy |
| 12 | 90 | 74 | 82 | .024 | 0 | 81 | Pt.Cldy |
| 13 | 93 | 76 | 84 | .059 | T | 81 | Pt.Cldy |
| 14 | 94 | 77 | 86 | .146 | .13 | 81 | Cldy |
| 15 | 96 | 76 | 86 | .114 | .01 | 82 | Pt.Cldy |
| 16 | 93 | 77 | 85 | .098 | .05 | 82 | Pt.Cldy |
| 17 | 93 | 78 | 86 | .134 | .02 | 82 | Cldy |
| 18 | 91 | 75 | 83 | .134 | .04 | 82 | Cldy |
| 19 | 88 | 75 | 82 | .126 | .05 | 82 | Cldy |
| 20 | 86 | 76 | 81 | .051 | .25 | 82 | Cldy |
| 21 | 84 | 75 | 80 | .063 | .16 | 82 | Cldy |
| 22 | 83 | 76 | 80 | .047 | T | 81 | Cldy |
| 23 | 89 | 77 | 83 | .118 | .21 | 83 | Pt.Cldy |
| 24 | 85 | 75 | 80 | .051 | .05 | 83 | Cldy |
| 25 | 87 | 74 | 80 | .091 | .01 | 83 | Pt.Cldy |
| 26 | 82 | 75 | 78 | .161 | .95 | 83 | Cldy |
| 27 | 86 | 74 | 80 | .036 | 0 | 83 | Cldy |
| 28 | 87 | 75 | 81 | .075 | .25 | 82 | Cldy |
| 29 | 84 | 73 | 78 | .078 | 1.29 | 82 | Cldy |
| 30 | 81 | 73 | 77 | .052 | .10 | 82 | Cldy |
| 31 | 84 | 76 | 80 | .055 | 0 | 81 | Cldy |
| Total | 2775 | 2331 | - | 3.075 | 5.17 | | |
| Mean | 88.9 | 75.2 | 82.0 | .099 | - | 81.5 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.809
Highest 29.920 Date 27
Lowest 29.690 Date 15

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean 82.0
Highest 96 Date 15
Lowest 71 Date 8
Greatest daily range 20 Date 15
Mean for this month for 43 years 80.9
Maximum for this month for 43 years 96
Minimum for this month for 43 years 69
Average excess of this month compared with a mean of 43 years +1.1

### PRECIPITATION
(Inches)

Total for this month 5.17
Greatest amount in 24 hours 1.36 Date 8
Average for this month for 7.73 years 50
Total from January 1, 1948 to date 6.56
Average from January 1 to date 12.79
Accumulated deficiency from January 1 to date compared with average -6.23

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 10.68 | 1917 5.75 | 1928 4.20 | 1939 4.61 |
| 1907 4.44 | 1918 6.75 | 1929 4.04 | 1940 2.26 |
| 1908 7.64 | 1919 5.21 | 1930 9.70 | 1941 9.03 |
| 1909 9.10 | 1920 3.31 | 1931 13.15 | 1942 12.16 |
| 1910 9.09 | 1921 8.60 | 1932 9.37 | 1943 6.58 |
| 1911 11.04 | 1922 9.80 | 1933 7.86 | 1944 8.35 |
| 1912 10.71 | 1923 5.84 | 1934 4.96 | 1945 4.22 |
| 1913 8.27 | 1924 5.51 | 1935 8.10 | 1946 2.39 |
| 1914 6.98 | 1925 6.73 | 1936 6.36 | 1947 4.99 |
| 1915 6.42 | 1926 4.16 | 1937 10.98 | 1948 5.17 |
| 1916 12.59 | 1927 9.06 | 1938 12.03 | 1949 |

### WIND

Prevailing direction NW
Total movement 4589 miles
Average hourly velocity 6.2 miles per hour
Maximum velocity for five minutes 24 miles per hour from S on 31

### MISCELLANEOUS

Total evaporation for this month 3.075 inches
Average daily evaporation .099 inches
Relative humidity, bihourly mean, percent 84.8
Sunshine, percentage of possible 59
Number of days clear 0 Partly cloudy 9 Cloudy 22
Number of days with .01 inch rain or more 21

### DATES

Fogs, light none
Fogs, dense none
Halos, lunar none
Thunderstorms 5;6;8;14;15;17;19;20;28.
Earthquakes none felt

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

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MR 99476—Panama Canal—11-17-43—500

# THE PANAMA CANAL

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month June, 1948

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 74 | 80 | .082 | .36 | 81 | Pt.Cldy |
| 2 | 86 | 75 | 80 | .079 | 0 | 82 | Cloudy |
| 3 | 81 | 75 | 78 | .083 | .43 | 82 | Cloudy |
| 4 | 87 | 73 | 80 | .047 | .07 | 82 | Cloudy |
| 5 | 87 | 74 | 80 | .047 | T | 82 | Cloudy |
| 6 | 89 | 75 | 82 | .067 | .40 | 82 | Cloudy |
| 7 | 87 | 74 | 80 | .083 | 0 | 82 | Cloudy |
| 8 | 91 | 74 | 82 | .063 | .06 | 83 | Pt.Cldy |
| 9 | 87 | 75 | 81 | .122 | 1.52 | 83 | Cloudy |
| 10 | 86 | 75 | 80 | .075 | .02 | 83 | Pt.Cldy |
| 11 | 86 | 72 | 79 | .090 | 1.28 | 82 | Cloudy |
| 12 | 88 | 71 | 80 | .063 | 0 | 82 | Pt.Cldy |
| 13 | 90 | 73 | 82 | .079 | .54 | 82 | Pt.Cldy |
| 14 | 84 | 72 | 78 | .067 | .01 | 82 | Cloudy |
| 15 | 87 | 75 | 81 | .043 | T | 83 | Cloudy |
| 16 | 85 | 74 | 80 | .079 | 0 | 83 | Cloudy |
| 17 | 90 | 76 | 83 | .071 | .15 | 83 | Pt.Cldy |
| 18 | 87 | 76 | 82 | .059 | .09 | 83 | Cloudy |
| 19 | 87 | 76 | 82 | .067 | 0 | 82 | Cloudy |
| 20 | 86 | 76 | 81 | .079 | 0 | 82 | Pt.Cldy |
| 21 | 84 | 76 | 80 | .070 | .27 | 82 | Cloudy |
| 22 | 86 | 75 | 80 | .056 | 0 | 82 | Cloudy |
| 23 | 90 | 75 | 82 | .067 | T | 83 | Pt.Cldy |
| 24 | 92 | 76 | 84 | .086 | 0 | 83 | Cloudy |
| 25 | 88 | 77 | 82 | .075 | 0 | 83 | Cloudy |
| 26 | 89 | 74 | 82 | .094 | .19 | 83 | Cloudy |
| 27 | 85 | 74 | 80 | .119 | .38 | 83 | Cloudy |
| 28 | 85 | 74 | 80 | .051 | 0 | 83 | Cloudy |
| 29 | 89 | 74 | 82 | .069 | 0 | 83 | Pt.Cldy |
| 30 | 86 | 74 | 80 | .067 | .55 | 83 | Cloudy |
| 31 | | | | | | | |
| Total | 2610 | 2234 | - | 2.199 | 6.32 | - | |
| Mean | 87.0 | 74.5 | 80.8 | - | - | 82.6 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.844
Highest 29.960 Date 3
Lowest 29.680 Date 25

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (~~Mean~~) 80.8
Highest 92 Date 24
Lowest 71 Date 12
Greatest daily range 17 Date 8
Mean for this month for 43 years 80.2
Maximum for this month for 43 years 94
Minimum for this month for 43 years 69
Average excess ~~or deficiency~~ of this month compared with a mean of 43 years +0.6

### PRECIPITATION
(Inches)

Total for this month 6.32
Greatest amount in 24 hours 1.54 Date 9-10
Average for this month for 51 years 8.14
Total from January 1, 1948 to date 12.88
Average from January 1 to date 20.93
Accumulated ~~excess or deficiency~~ from January 1 to date compared with average 8.05

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.79 | 1917 7.35 | 1928 8.78 | 1939 12.65 |
| 1907 12.64 | 1918 5.20 | 1929 9.34 | 1940 6.03 |
| 1908 4.28 | 1919 8.93 | 1930 2.50 | 1941 5.96 |
| 1909 9.90 | 1920 4.83 | 1931 7.81 | 1942 5.59 |
| 1910 8.82 | 1921 7.86 | 1932 9.23 | 1943 10.75 |
| 1911 3.40 | 1922 7.92 | 1933 14.36 | 1944 15.37 |
| 1912 5.80 | 1923 5.59 | 1934 10.85 | 1945 5.17 |
| 1913 8.15 | 1924 8.41 | 1935 7.54 | 1946 4.18 |
| 1914 7.28 | 1925 18.34 | 1936 9.12 | 1947 6.06 |
| 1915 2.85 | 1926 12.33 | 1937 7.44 | 1948 6.32 |
| 1916 4.39 | 1927 10.83 | 1938 9.49 | 1949 |

### WIND

Prevailing direction NW
Total movement 3481 miles
Average hourly velocity 4.8 miles per hour
Maximum velocity for five minutes 19 miles per hour from NW on 29th

### MISCELLANEOUS

Total evaporation for this month 2.199 inches
Average daily evaporation .073 inches
Relative humidity, bihourly mean, percent 86.9
Sunshine, percentage of possible 35
Number of days clear 0 Partly cloudy 9 Cloudy 21
Number of days with .01 inch rain or more 16

### DATES

Fogs, light 0
Fogs, dense 0
Halos, lunar 8
Thunderstorms 3;4;6;9;13;18;21;27.
Earthquakes None felt.

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

AUG 13 1948

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# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, BALBOA HEIGHTS, C. Z. ; Month JULY, 1948

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (inches) For 24 hours Period Ending 8 a.m. | Precipitation (inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 74 | 80 | .091 | 0 | 84 | Cloudy |
| 2 | 90 | 73 | 82 | .067 | .32 | 84 | Cloudy |
| 3 | 84 | 72 | 78 | .094 | 0 | 83 | Cloudy |
| 4 | 91 | 74 | 82 | .091 | .01 | 83 | Pt.Cldy. |
| 5 | 85 | 76 | 80 | .043 | .01 | 83 | Cloudy |
| 6 | 88 | 74 | 81 | .079 | .66 | 82 | Cloudy |
| 7 | 86 | 74 | 80 | .071 | 0 | 82 | Cloudy |
| 8 | 85 | 74 | 80 | .027 | .14 | 82 | Cloudy |
| 9 | 84 | 73 | 78 | .071 | T | 82 | Cloudy |
| 10 | 87 | 73 | 80 | .051 | 0 | 83 | Cloudy |
| 11 | 88 | 75 | 82 | .095 | 0 | 83 | Cloudy |
| 12 | 88 | 75 | 82 | .063 | .13 | 84 | Pt.Cldy. |
| 13 | 86 | 74 | 80 | .126 | 2.01 | 83 | Cloudy |
| 14 | 85 | 73 | 79 | .082 | .29 | 83 | Pt.Cldy. |
| 15 | 87 | 73 | 80 | .134 | .05 | 84 | Cloudy |
| 16 | 81 | 75 | 78 | .047 | .05 | 84 | Cloudy |
| 17 | 86 | 75 | 80 | .067 | .03 | 84 | Cloudy |
| 18 | 93 | 74 | 84 | .031 | 0 | 84 | Pt.Cldy. |
| 19 | 88 | 75 | 82 | .075 | 0 | 84 | Cloudy |
| 20 | 90 | 75 | 82 | .047 | .03 | 83 | Cloudy |
| 21 | 91 | 75 | 83 | .099 | .90 | 83 | Cloudy |
| 22 | 84 | 74 | 79 | .078 | .03 | 82 | Cloudy |
| 23 | 84 | 74 | 79 | .032 | T | 82 | Cloudy |
| 24 | 87 | 72 | 80 | .067 | 0 | 82 | Pt.Cldy. |
| 25 | 86 | 75 | 80 | .126 | 0 | 83 | Cloudy |
| 26 | 86 | 73 | 80 | .067 | 1.47 | 83 | Cloudy |
| 27 | 85 | 73 | 79 | .055 | 0 | 83 | Cloudy |
| 28 | 82 | 75 | 78 | .055 | 0 | 82 | Cloudy |
| 29 | 88 | 72 | 80 | .090 | 0 | 83 | Pt.Cldy. |
| 30 | 91 | 74 | 82 | .044 | 0 | 85 | Pt.Cldy. |
| 31 | 90 | 76 | 83 | .098 | .26 | 85 | Pt.Cldy. |
| Sum | 2692 | 2294 | - | 2.263 | 6.39 | - | |
| Mean | 86.8 | 74.0 | 80.4 | .073 | - | 83.2 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.828
Highest 29.940 Date 27
Lowest 29.700 Date 1

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (~~DEXXX~~ 80.4
Highest 93 Date 18
Lowest 72 Date 3
Greatest daily range 19 Date 18
Mean for this month for 43 years 80.5
Maximum for this month for 43 years 95
Minimum for this month for 43 years 67
Average ~~XXXXXX~~ deficiency of this month compared with a mean of 43 years - 0.1

### PRECIPITATION
(Inches)

Total for this month 6.39
Greatest amount in 24 hours 2.30 Date 13-14
Average for this month for 52 years 7.07
Total from January 1, 1948 to date 19.27
Average from January 1 to date 28.00
Accumulated ~~XXXXXX~~ deficiency from January 1 to date compared with average - 8.73

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 8.98 | 1917 10.17 | 1928 7.91 | 1939 5.06 |
| 1907 4.28 | 1918 5.13 | 1929 5.22 | 1940 6.23 |
| 1908 6.83 | 1919 4.75 | 1930 4.04 | 1941 6.05 |
| 1909 9.01 | 1920 6.18 | 1931 10.48 | 1942 6.22 |
| 1910 9.26 | 1921 8.07 | 1932 6.29 | 1943 6.49 |
| 1911 5.78 | 1922 5.08 | 1933 6.01 | 1944 4.85 |
| 1912 10.25 | 1923 3.15 | 1934 5.39 | 1945 5.89 |
| 1913 4.85 | 1924 5.97 | 1935 13.16 | 1946 7.44 |
| 1914 4.32 | 1925 3.83 | 1936 5.94 | 1947 7.25 |
| 1915 6.93 | 1926 9.93 | 1937 6.57 | 1948 6.39 |
| 1916 10.13 | 1927 8.22 | 1938 7.52 | 1949 |

### WIND

Prevailing direction NW
Total movement 3457 miles
Average hourly velocity 4.6 miles per hour
Maximum velocity for five minutes 33 miles per hour from South on 2

### MISCELLANEOUS

Total evaporation for this month 2.263 inches
Average daily evaporation .073 inches
Relative humidity, bihourly mean, percent 89.3
Sunshine, percentage of possible 33
Number of days clear 0 Partly cloudy 8 Cloudy 23
Number of days with .01 inch rain or more 16

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 2;6;7;8;13;15;16;21;26;29;31
Earthquakes 28

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C.Z. ; Month August, 1948

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 75 | 80 | .095 | .12 | 85 | Cloudy |
| 2 | 88 | 74 | 81 | .051 | 0 | 86 | Pt.Cldy. |
| 3 | 88 | 74 | 81 | .079 | 0 | 84 | Pt.Cldy |
| 4 | 79 | 73 | 76 | .078 | .58 | 83 | Cloudy |
| 5 | 82 | 72 | 77 | .063 | .08 | 82 | Cloudy |
| 6 | 83 | 73 | 78 | .048 | .70 | 82 | Pt.Cldy |
| 7 | 84 | 73 | 78 | .063 | .09 | 83 | Cloudy |
| 8 | 88 | 73 | 80 | .035 | .01 | 84 | Cloudy |
| 9 | 90 | 73 | 82 | .075 | .14 | 84 | Cloudy |
| 10 | 85 | 74 | 80 | .055 | .02 | 84 | Cloudy |
| 11 | 89 | 74 | 82 | .091 | .10 | 84 | Pt.Cldy |
| 12 | 91 | 75 | 83 | .079 | .07 | 84 | Pt.Cldy |
| 13 | 90 | 76 | 83 | .094 | T | 84 | Pt.Cldy |
| 14 | 91 | 76 | 84 | .087 | 0 | 83 | Cloudy |
| 15 | 86 | 76 | 80 | .043 | .03 | 83 | Cloudy |
| 16 | 89 | 79 | 84 | .130 | T | 84 | Cloudy |
| 17 | 91 | 75 | 83 | .114 | .07 | 83 | Cloudy |
| 18 | 92 | 76 | 84 | .095 | 0 | 82 | Cloudy |
| 19 | 91 | 77 | 84 | .122 | .70 | 82 | Cloudy |
| 20 | 85 | 75 | 80 | .082 | 0 | 82 | Cloudy |
| 21 | 82 | 75 | 78 | .134 | .05 | 82 | Cloudy |
| 22 | 86 | 75 | 80 | .040 | T | 83 | Pt.Cldy |
| 23 | 88 | 73 | 80 | .110 | .23 | 84 | Cloudy |
| 24 | 83 | 74 | 78 | .027 | .19 | 83 | Cloudy |
| 25 | 86 | 72 | 79 | .063 | 0 | 84 | Pt.Cldy |
| 26 | 85 | 73 | 79 | .087 | .94 | 83 | Cloudy |
| 27 | 91 | 72 | 82 | .071 | 0 | 84 | Pt.Cldy |
| 28 | 91 | 78 | 84 | .079 | 0 | 84 | Pt.Cldy |
| 29 | 88 | 76 | 82 | .149 | 0 | 84 | Cloudy |
| 30 | 87 | 77 | 82 | .055 | T | 83 | Cloudy |
| 31 | 92 | 75 | 84 | .063 | 0 | 83 | Pt.Cldy |
| SUM | 2705 | 2313 | - | 2.457 | 4.12 | - | |
| MEAN | 87.3 | 74.6 | 81.0 | .079 | - | 83.3 | |

Note.—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.823
Highest 29.930 Date 22
Lowest 29.700 Date 17

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 81.0
Highest 92 Date 31
Lowest 72 Date 5
Greatest daily range 19 Date 27
Mean for this month for 43 years 80.3
Maximum for this month for 43 years 94
Minimum for this month for 43 years 68
Average excess ~~or deficiency~~ of this month compared with a mean of 43 years +0.7

### PRECIPITATION
(Inches)

Total for this month 4.12
Greatest amount in 24 hours .94 Date 26
Average for this month for 52 years 7.68
Total from January 1, 1948 to date 23.39
Average from January 1 to date 35.68
Accumulated ~~excess or~~ deficiency from January 1 to date compared with average -12.29

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 6.44 | 1917 7.42 | 1928 6.87 | 1939 5.12 |
| 1907 7.46 | 1918 3.84 | 1929 11.96 | 1940 4.59 |
| 1908 11.48 | 1919 5.82 | 1930 4.34 | 1941 11.65 |
| 1909 6.84 | 1920 12.22 | 1931 4.28 | 1942 5.40 |
| 1910 12.00 | 1921 9.51 | 1932 7.61 | 1943 6.50 |
| 1911 7.21 | 1922 1.46 | 1933 6.55 | 1944 14.47 |
| 1912 6.33 | 1923 5.37 | 1934 4.52 | 1945 6.37 |
| 1913 8.20 | 1924 14.46 | 1935 11.41 | 1946 6.56 |
| 1914 6.09 | 1925 10.83 | 1936 6.14 | 1947 5.83 |
| 1915 15.24 | 1926 10.45 | 1937 3.80 | 1948 4.12 |
| 1916 10.53 | 1927 7.76 | 1938 11.82 | 1949 |

### WIND

Prevailing direction NW
Total movement 3745 miles
Average hourly velocity 5.0 miles per hour
Maximum velocity for five minutes 19 miles per hour from NW on 3

### MISCELLANEOUS

Total evaporation for this month 2.457 inches
Average daily evaporation .079 inches
Relative humidity, bihourly mean, percent 88.0
Sunshine, percentage of possible 36
Number of days clear 0 Partly cloudy 10 Cloudy 21
Number of days with .01 inch rain or more 17

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar 14.
Thunderstorms 4;11;12;13;14;16;17;19;20;30;
Earthquakes None felt

066-8

# THE PANAMA CANAL

MR 99476—Panama Canal—11-17-43—500

DEPARTMENT OF OPERATION AND MAINTENANCE—SECTION OF METEOROLOGY AND HYDROGRAPHY

## MONTHLY METEOROLOGICAL SUMMARY

Station, Balboa Heights, C. Z.; Month September, 1948

| Date | Temperature (Degrees Fahrenheit) Max. | Min. | Mean | Evaporation (Inches) For 24 hours Period Ending 8 a.m. | Precipitation (Inches) | Temperature of Sea Water, Bihourly Mean | Character of Day |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 77 | 82 | .130 | .03 | 82 | Cloudy |
| 2 | 85 | 75 | 80 | .071 | .08 | 82 | Cloudy |
| 3 | 83 | 74 | 78 | .083 | .05 | 83 | Cloudy |
| 4 | 86 | 74 | 80 | .063 | 0 | 83 | Pt.Cldy |
| 5 | 87 | 74 | 80 | .063 | .02 | 83 | Pt.Cldy |
| 6 | 87 | 74 | 80 | .071 | 0 | 83 | Pt.Cldy |
| 7 | 85 | 74 | 80 | .078 | .05 | 83 | Cloudy |
| 8 | 86 | 74 | 80 | .087 | 0 | 84 | Cloudy |
| 9 | 88 | 74 | 81 | .091 | .13 | 84 | Cloudy |
| 10 | 80 | 73 | 76 | .070 | .33 | 84 | Cloudy |
| 11 | 83 | 71 | 77 | .057 | 0 | 83 | Pt.Cldy |
| 12 | 82 | 74 | 78 | .059 | .04 | 83 | Pt.Cldy |
| 13 | 86 | 72 | 79 | .044 | .22 | 84 | Pt.Cldy |
| 14 | 84 | 71 | 78 | .087 | .23 | 83 | Cloudy |
| 15 | 86 | 74 | 80 | .039 | .77 | 82 | Cloudy |
| 16 | 86 | 73 | 80 | .043 | .23 | 83 | Cloudy |
| 17 | 86 | 73 | 80 | .048 | T | 84 | Pt.Cldy |
| 18 | 86 | 75 | 80 | .066 | .11 | 84 | Cloudy |
| 19 | 85 | 76 | 80 | .130 | T | 83 | Pt.Cldy |
| 20 | 86 | 76 | 81 | .095 | 0 | 83 | Pt.Cldy |
| 21 | 87 | 74 | 80 | .075 | 0 | 84 | Pt.Cldy |
| 22 | 89 | 76 | 82 | .078 | .01 | 84 | Pt.Cldy |
| 23 | 87 | 74 | 80 | .134 | .84 | 84 | Cloudy |
| 24 | 85 | 75 | 80 | .071 | 2.22 | 84 | Cloudy |
| 25 | 87 | 74 | 80 | .067 | .47 | 84 | Pt.Cldy |
| 26 | 80 | 73 | 76 | .098 | .53 | 83 | Cloudy |
| 27 | 84 | 75 | 80 | .058 | .05 | 82 | Cloudy |
| 28 | 84 | 74 | 79 | .063 | .12 | 83 | Cloudy |
| 29 | 85 | 75 | 80 | .070 | .03 | 84 | Pt.Cldy |
| 30 | 87 | 74 | 80 | .071 | 0 | 84 | Cloudy |
| 31 | | | | | | | |
| Total | 2560 | 2222 | - | 2.260 | - | - | |
| Mean | 85.3 | 84.1 | 79.7 | .075 | 6.56 | 83.3 | |

### ATMOSPHERIC PRESSURE
(Inches, reduced to sea level)

Bihourly mean 29.815
Highest 29.930 Date 13
Lowest 29.710 Date 27

### TEMPERATURE
(Degrees Fahrenheit)

Monthly mean (Bi-H.) 79.7
Highest 89 Date 22
Lowest 71 Date 11
Greatest daily range 14 Date 9
Mean for this month for 43 years 79.9
Maximum for this month for 43 years 94
Minimum for this month for 43 years 68
Average excess or deficiency of this month compared with a mean of 43 years - 0.2

### PRECIPITATION
(Inches)

Total for this month 6.56
Greatest amount in 24 hours 2.22 Date 24
Average for this month for 52 years 7.98
Total from January 1, 1948 to date 29.95
Average from January 1 to date 43.66
Accumulated [redacted] or deficiency from January 1 to date compared with average - 13.71

Total precipitation in this month in:

| | | | |
|---|---|---|---|
| 1906 4.89 | 1917 11.53 | 1928 10.44 | 1939 8.12 |
| 1907 11.14 | 1918 7.03 | 1929 9.26 | 1940 13.99 |
| 1908 5.93 | 1919 10.84 | 1930 7.61 | 1941 8.01 |
| 1909 3.86 | 1920 9.14 | 1931 11.09 | 1942 8.11 |
| 1910 4.84 | 1921 3.27 | 1932 7.23 | 1943 7.88 |
| 1911 6.09 | 1922 8.18 | 1933 5.18 | 1944 6.08 |
| 1912 8.38 | 1923 4.60 | 1934 16.38 | 1945 5.14 |
| 1913 11.43 | 1924 12.55 | 1935 4.70 | 1946 2.62 |
| 1914 9.60 | 1925 9.01 | 1936 8.62 | 1947 5.39 |
| 1915 3.69 | 1926 8.41 | 1937 10.89 | 1948 6.56 |
| 1916 8.02 | 1927 6.53 | 1938 8.23 | 1949 |

### WIND

Prevailing direction S
Total movement 3349 miles
Average hourly velocity 4.6 miles per hour
Maximum velocity for five minutes 20 miles per hour from S on 19

### MISCELLANEOUS

Total evaporation for this month 2.260 inches
Average daily evaporation .075 inches
Relative humidity, bihourly mean, percent 89.4
Sunshine, percentage of possible 41
Number of days clear 0 Partly cloudy 13 Cloudy 17
Number of days with .01 inch rain or more 21

### DATES

Fogs, light None
Fogs, dense None
Halos, lunar None
Thunderstorms 3, 9, 10, 14, 15, 16, 18, 23, 24, 25, 26
Earthquakes None felt

—"T" indicates traces of precipitation (less than 0.01 inch). All data in 75th meridian time.

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, Canal Zone Month: September 1954

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 88 | 74 | 81 | 91 | 8 | 1.72 |
| 2 | 79 | 73 | 76 | 93 | 10 | .48 |
| 3 | 83 | 71 | 77 | 87 | 10 | .21 |
| 4 | 86 | 71 | 78 | 86 | 6 | 0 |
| 5 | 89 | 73 | 81 | 85 | 7 | .04 |
| 6 | 86 | 74 | 80 | 89 | 8 | .06 |
| 7 | 86 | 74 | 80 | 88 | 10 | 0 |
| 8 | 87 | 74 | 80 | 86 | 8 | .12 |
| 9 | 87 | 73 | 80 | 87 | 7 | T |
| 10 | 87 | 75 | 81 | 89 | 9 | .31 |
| 11 | 85 | 75 | 80 | 87 | 10 | T |
| 12 | 82 | 72 | 77 | 89 | 10 | .01 |
| 13 | 84 | 75 | 80 | 87 | 10 | 1.42 |
| 14 | 83 | 74 | 78 | 88 | 10 | T |
| 15 | 85 | 72 | 78 | 89 | 10 | .33 |
| 16 | 85 | 74 | 80 | 86 | 9 | 0 |
| 17 | 80 | 74 | 77 | 90 | 10 | .09 |
| 18 | 87 | 72 | 80 | 84 | 3 | 0 |
| 19 | 87 | 75 | 81 | 85 | 7 | .05 |
| 20 | 85 | 74 | 80 | 88 | 10 | T |
| 21 | 87 | 72 | 80 | 87 | 9 | 2.44 |
| 22 | 83 | 70 | 76 | 86 | 8 | T |
| 23 | 87 | 74 | 80 | 85 | 4 | .07 |
| 24 | 84 | 74 | 79 | 89 | 9 | .09 |
| 25 | 77 | 72 | 74 | 92 | 10 | .78 |
| 26 | 84 | 72 | 78 | 85 | 5 | 0 |
| 27 | 84 | 74 | 79 | 86 | 9 | T |
| 28 | 87 | 74 | 80 | 87 | 9 | .10 |
| 29 | 84 | 73 | 78 | 88 | 10 | .09 |
| 30 | 83 | 72 | 78 | 91 | 10 | .27 |
| 31 | | | | | | |
| Sum | 2541 | 2195 | — | — | 255 | 8.68 |
| Mean | 84.7 | 73.2 | 79.0 | 87.5 | 8.5 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1945 | 5.14 | 1950 | 3.79 |
| 1946 | 2.62 | 1951 | 9.79 |
| 1947 | 5.38 | 1952 | 8.60 |
| 1948 | 6.98 | 1953 | 7.07 |
| 1949 | 6.96 | 1954 | 8.68 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.828

Departure from normal +.003

Highest 29.98 Date 2

Lowest 29.72 Date 11

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.0

Departure from normal -0.9

Highest 89 Date 5

Lowest 70 Date 22

### RAINFALL
(Inches)

Total 8.68

Departure from normal +.77

Greatest in 24 hours 2.44

Date 21

### WIND

Average hourly velocity 3.9 mph.

Prevailing direction NW

Maximum for five minutes 22

mph. from the N on the 1

### SUNSHINE

Average number hours per day 5.3

Percentage of possible 44

### NUMBER OF DAYS

Clear 1

Partly Cloudy 6

Cloudy 23

.01 inch of rain or more 19

Thunderstorms 18

Light fog 1

Dense fog 0

Number of hours with rain 64

MR 46867—Panama Canal—9-6-51—200

4066-11

# THE PANAMA CANAL

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, Canal Zone Month: October 1954

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 81 | 71 | 76 | 89 | 10 | .11 |
| 2 | 80 | 73 | 76 | 89 | 10 | .22 |
| 3 | 82 | 73 | 78 | 90 | 10 | .13 |
| 4 | 79 | 73 | 76 | 93 | 10 | .14 |
| 5 | 82 | 73 | 78 | 90 | 10 | .03 |
| 6 | 82 | 72 | 77 | 88 | 9 | .24 |
| 7 | 86 | 73 | 80 | 89 | 7 | 2.66 |
| 8 | 85 | 71 | 78 | 91 | 8 | 1.97 |
| 9 | 83 | 71 | 77 | 92 | 8 | 1.72 |
| 10 | 84 | 70 | 77 | 89 | 8 | T |
| 11 | 84 | 72 | 78 | 83 | 9 | T |
| 12 | 82 | 74 | 78 | 84 | 8 | T |
| 13 | 83 | 74 | 78 | 82 | 9 | T |
| 14 | 83 | 74 | 78 | 83 | 8 | T |
| 15 | 84 | 75 | 80 | 84 | 7 | T |
| 16 | 84 | 73 | 78 | 86 | 7 | T |
| 17 | 84 | 73 | 78 | 86 | 5 | 0 |
| 18 | 85 | 72 | 78 | 85 | 6 | 0 |
| 19 | 85 | 73 | 79 | 84 | 8 | 0 |
| 20 | 83 | 72 | 78 | 90 | 10 | .89 |
| 21 | 83 | 71 | 77 | 89 | 8 | .88 |
| 22 | 81 | 72 | 76 | 92 | 10 | .99 |
| 23 | 81 | 71 | 76 | 91 | 10 | .02 |
| 24 | 83 | 71 | 77 | 88 | 10 | .10 |
| 25 | 79 | 72 | 76 | 92 | 10 | 1.99 |
| 26 | 79 | 72 | 76 | 91 | 10 | 0 |
| 27 | 79 | 72 | 76 | 93 | 10 | 1.81 |
| 28 | 82 | 72 | 77 | 89 | 9 | .05 |
| 29 | 84 | 72 | 78 | 87 | 9 | T |
| 30 | 83 | 74 | 78 | 89 | 10 | T |
| 31 | 87 | 73 | 80 | 89 | 9 | .23 |
| Sum | 2562 | 2244 | -- | -- | 272 | 14.18 |
| Mean | 82.6 | 72.4 | 77.5 | 88.3 | 8.8 | ---- |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1945 | 17.36 | 1950 | 7.08 |
| 1946 | 14.05 | 1951 | 13.10 |
| 1947 | 9.68 | 1952 | 14.81 |
| 1948 | 13.63 | 1953 | 14.07 |
| 1949 | 11.68 | 1954 | 14.18 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.852

Departure from normal + .027

Highest 29.95 Date 16

Lowest 29.73 Date 10

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 77.5

Departure from normal - 1.8

Highest 87 Date 31

Lowest 70 Date 10

### RAINFALL
(Inches)

Total 14.18

Departure from normal +3.55

Greatest in 24 hours 4.63

Date 7 & 8

### WIND

Average hourly velocity 4.9 mph.

Prevailing direction S

Maximum for five minutes 26

mph. from the S on the 11

### SUNSHINE

Average number hours per day 4.4

Percentage of possible 37

### NUMBER OF DAYS

Clear 0

Partly Cloudy 5

Cloudy 26

.01 inch of rain or more 18

Thunderstorms 8

Light fog 2

Dense fog 1

Number of hours with rain 89

MR 41983—Panama Canal—11-28-50—300

4066-11 DEC 17 1954

# THE PANAMA CANAL
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** November, 1954

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 85 | 74 | 80 | 88 | 9 | .02 |
| 2 | 84 | 74 | 79 | 89 | 10 | T |
| 3 | 82 | 73 | 78 | 88 | 10 | T |
| 4 | 90 | 74 | 82 | 86 | 6 | .03 |
| 5 | 88 | 74 | 81 | 83 | 8 | .02 |
| 6 | 86 | 73 | 80 | 88 | 8 | 3.34 |
| 7 | 83 | 73 | 78 | 88 | 10 | .21 |
| 8 | 85 | 72 | 78 | 89 | 10 | 1.43 |
| 9 | 85 | 73 | 79 | 90 | 10 | .08 |
| 10 | 85 | 73 | 79 | 85 | 10 | T |
| 11 | 81 | 73 | 77 | 89 | 10 | .02 |
| 12 | 83 | 70 | 76 | 88 | 8 | .03 |
| 13 | 80 | 72 | 76 | 94 | 10 | 1.84 |
| 14 | 82 | 73 | 78 | 90 | 9 | .31 |
| 15 | 87 | 73 | 80 | 91 | 10 | 2.16 |
| 16 | 85 | 73 | 79 | 90 | 9 | .12 |
| 17 | 85 | 73 | 79 | 88 | 10 | 0 |
| 18 | 84 | 73 | 78 | 88 | 9 | .03 |
| 19 | 82 | 72 | 77 | 89 | 9 | .17 |
| 20 | 80 | 71 | 76 | 93 | 10 | 1.73 |
| 21 | 82 | 70 | 76 | 88 | 8 | .32 |
| 22 | 81 | 71 | 76 | 88 | 9 | .06 |
| 23 | 83 | 72 | 78 | 89 | 9 | .61 |
| 24 | 84 | 71 | 78 | 88 | 8 | .11 |
| 25 | 83 | 71 | 77 | 90 | 8 | .20 |
| 26 | 85 | 71 | 78 | 89 | 9 | .21 |
| 27 | 84 | 71 | 78 | 90 | 7 | .34 |
| 28 | 85 | 72 | 78 | 91 | 8 | .21 |
| 29 | 83 | 73 | 78 | 89 | 10 | .02 |
| 30 | 83 | 73 | 78 | 87 | 10 | T |
| 31 | | | | | | |
| Sum | 2515 | 2171 | - | - | 271 | 13.62 |
| Mean | 83.8 | 72.4 | 78.1 | 88.8 | 9.0 | - |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1945 | 9.49 | 1950 | 10.83 |
| 1946 | 8.08 | 1951 | 8.59 |
| 4T 1947 | 10.25 | 1952 | 10.85 |
| 1948 | 12.76 | 1953 | 6.28 |
| 1949 | 10.46 | 1954 | 13.62 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.841
Departure from normal + .023
Highest 29.96 Date 24
Lowest 29.73 Date 27

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 78.1
Departure from normal - 1.1
Highest 90 Date 4
Lowest 70 Date 12

**RAINFALL**
(Inches)

Total 13.62
Departure from normal + 3.48
Greatest in 24 hours 3.55
Date 6 and 7

**WIND**

Average hourly velocity 4.0 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the S on the 18

**SUNSHINE**

Average number hours per day 4.4
Percentage of possible 38

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 2
Cloudy 28
.01 inch of rain or more 25
Thunderstorms 13
Light fog 1
Dense fog 0

Number of hours with rain 83

MR 41983—Panama Canal—11-28-50—300

4066-11

# THE PANAMA CANAL

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: January, 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 87 | 70 | 78 | 78 | 4 | 0 |
| 2 | 86 | 67 | 76 | 77 | 5 | 0 |
| 3 | 87 | 70 | 78 | 80 | 6 | 0 |
| 4 | 86 | 69 | 78 | 86 | 8 | .04 |
| 5 | 87 | 70 | 78 | 80 | 5 | 0 |
| 6 | 86 | 69 | 78 | 79 | 6 | 0 |
| 7 | 87 | 74 | 80 | 79 | 9 | T |
| 8 | 84 | 74 | 79 | 83 | 9 | .04 |
| 9 | 88 | 75 | 82 | 78 | 8 | .01 |
| 10 | 89 | 74 | 82 | 80 | 8 | .01 |
| 11 | 89 | 74 | 82 | 80 | 8 | T |
| 12 | 88 | 73 | 80 | 80 | 6 | .03 |
| 13 | 82 | 71 | 76 | 91 | 10 | 1.24 |
| 14 | 85 | 70 | 78 | 87 | 10 | .06 |
| 15 | 82 | 74 | 78 | 90 | 10 | .18 |
| 16 | 82 | 72 | 77 | 92 | 10 | 1.54 |
| 17 | 82 | 73 | 78 | 91 | 10 | .78 |
| 18 | 83 | 73 | 78 | 90 | 9 | .20 |
| 19 | 84 | 73 | 78 | 85 | 9 | .02 |
| 20 | 86 | 70 | 78 | 77 | 6 | 0 |
| 21 | 86 | 70 | 78 | 78 | 8 | .01 |
| 22 | 85 | 68 | 76 | 79 | 6 | 0 |
| 23 | 86 | 72 | 79 | 83 | 6 | .01 |
| 24 | 87 | 72 | 80 | 82 | 6 | .01 |
| 25 | 89 | 72 | 80 | 76 | 5 | 0 |
| 26 | 87 | 71 | 79 | 76 | 5 | 0 |
| 27 | 88 | 71 | 78 | 76 | 4 | 0 |
| 28 | 86 | 70 | 78 | 75 | 2 | 0 |
| 29 | 86 | 70 | 78 | 79 | 7 | 0 |
| 30 | 87 | 71 | 79 | 79 | 5 | 0 |
| 31 | 84 | 71 | 78 | 87 | 7 | .14 |
| Sum | 2661 | 2213 | - | 3039.6 | 217 | 4.32 |
| Mean | 85.8 | 71.4 | 78.6 | 81.7 | 7.0 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | 1.23 | 1951 | 1.43 |
| 1947 | 1.09 | 1952 | .41 |
| 1948 | 1.26 | 1953 | 2.66 |
| 1949 | .15 | 1954 | .61 |
| 1950 | .26 | 1955 | 4.32 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.874

Departure from normal +.033

Highest 30.00 Date 20

Lowest 29.75 Date 5

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 78.6

Departure from normal -1.3

Highest 89 Date 25

Lowest 67 Date 2

### RAINFALL
(Inches)

Total 4.32

Departure from normal + 3.23

Greatest in 24 hours 1.54

Date 16

### WIND

Average hourly velocity 6.3 mph.

Prevailing direction NW

Maximum for five minutes 21

mph. from the NW on the 28

### SUNSHINE

Average number hours per day 5.1

Percentage of possible 43

### NUMBER OF DAYS

Clear 1

Partly Cloudy 16

Cloudy 14

.01 inch of rain or more 16

Thunderstorms 3

Light fog 0

Dense fog 0

Number of hours with rain 42

MR 41983—Panama Canal—11-28-50—300

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# THE PANAMA CANAL

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: February 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 88 | 71 | 80 | 78 | 5 | .01 |
| 2 | 89 | 72 | 80 | 77 | 6 | 0 |
| 3 | 88 | 74 | 81 | 79 | 6 | .02 |
| 4 | 89 | 73 | 81 | 76 | 6 | T |
| 5 | 90 | 73 | 82 | 77 | 4 | 0 |
| 6 | 88 | 73 | 80 | 83 | 7 | .87 |
| 7 | 88 | 73 | 80 | 80 | 6 | T |
| 8 | 86 | 73 | 80 | 88 | 9 | 1.45 |
| 9 | 86 | 72 | 79 | 84 | 9 | .08 |
| 10 | 87 | 72 | 80 | 78 | 5 | T |
| 11 | 87 | 73 | 80 | 77 | 7 | T |
| 12 | 87 | 73 | 80 | 73 | 4 | 0 |
| 13 | 86 | 74 | 80 | 72 | 6 | T |
| 14 | 88 | 73 | 80 | 70 | 4 | T |
| 15 | 87 | 72 | 80 | 74 | 4 | 0 |
| 16 | 88 | 72 | 80 | 76 | 5 | 0 |
| 17 | 90 | 73 | 82 | 77 | 6 | 0 |
| 18 | 88 | 73 | 80 | 80 | 8 | 0 |
| 19 | 88 | 73 | 80 | 80 | 6 | 0 |
| 20 | 88 | 72 | 80 | 79 | 5 | T |
| 21 | 89 | 73 | 81 | 73 | 8 | 0 |
| 22 | 90 | 72 | 81 | 74 | 4 | 0 |
| 23 | 90 | 72 | 81 | 72 | 3 | 0 |
| 24 | 90 | 71 | 80 | 70 | 1 | 0 |
| 25 | 90 | 71 | 80 | 66 | 1 | T |
| 26 | 89 | 71 | 80 | 68 | 2 | T |
| 27 | 90 | 70 | 80 | 67 | 2 | 0 |
| 28 | 90 | 73 | 82 | 66 | 4 | 0 |
| 29 | | | | | | |
| 30 | | | | | | |
| 31 | | | | | | |
| Sum | 2474 | 2027 | — | — | 143 | 2.43 |
| Mean | 88.4 | 72.4 | 80.4 | 75.5 | 5.1 | — |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | .03 | 1951 | 1.59 |
| 1947 | .53 | 1952 | .11 |
| 1948 | .02 | 1953 | 2.49 |
| 1949 | T | 1954 | .86 |
| 1950 | .36 | 1955 | 2.43 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.832

Departure from normal - .023

Highest 29.94 Date 26

Lowest 29.72 Date 10

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.4

Departure from normal + 0.0

Highest 90 Date 28

Lowest 70 Date 27

### RAINFALL
(Inches)

Total 2.43

Departure from normal +1.79

Greatest in 24 hours 1.48

Date 8th and 9th

### WIND

Average hourly velocity 8.0 mph.

Prevailing direction NW

Maximum for five minutes 24

mph. from the N on the 12

### SUNSHINE

Average number hours per day 6.8

Percentage of possible 57

### NUMBER OF DAYS

Clear 5

Partly Cloudy 19

Cloudy 4

.01 inch of rain or more 5

Thunderstorms 1

Light fog 0

Dense fog 0

Number of hours with rain 11

APR 14 1955

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# THE PANAMA CANAL
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** March 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 90 | 71 | 80 | 66 | 2 | 0 |
| 2 | 90 | 71 | 80 | 65 | 5 | 0 |
| 3 | 91 | 71 | 81 | 66 | 2 | 0 |
| 4 | 90 | 71 | 80 | 68 | 2 | 0 |
| 5 | 90 | 72 | 81 | 70 | 1 | 0 |
| 6 | 89 | 72 | 80 | 72 | 7 | 0 |
| 7 | 90 | 71 | 80 | 68 | 3 | 0 |
| 8 | 91 | 71 | 81 | 66 | 1 | 0 |
| 9 | 90 | 73 | 82 | 63 | 1 | 0 |
| 10 | 91 | 71 | 81 | 66 | 1 | 0 |
| 11 | 91 | 72 | 82 | 68 | 2 | 0 |
| 12 | 91 | 70 | 80 | 68 | 1 | 0 |
| 13 | 90 | 70 | 80 | 68 | 2 | 0 |
| 14 | 91 | 72 | 82 | 67 | 1 | 0 |
| 15 | 92 | 72 | 82 | 69 | 4 | 0 |
| 16 | 90 | 71 | 80 | 71 | 6 | 0 |
| 17 | 91 | 74 | 82 | 71 | 5 | 0 |
| 18 | 90 | 74 | 82 | 70 | 6 | 0 |
| 19 | 91 | 74 | 82 | 70 | 4 | 0 |
| 20 | 88 | 73 | 80 | 71 | 7 | 0 |
| 21 | 91 | 72 | 82 | 73 | 10 | 0 |
| 22 | 89 | 73 | 81 | 76 | 9 | .02 |
| 23 | 91 | 73 | 82 | 73 | 7 | T |
| 24 | 92 | 74 | 83 | 70 | 7 | 0 |
| 25 | 90 | 77 | 84 | 72 | 9 | 0 |
| 26 | 92 | 74 | 83 | 72 | 4 | 0 |
| 27 | 90 | 75 | 82 | 73 | 9 | 0 |
| 28 | 90 | 75 | 82 | 71 | 9 | T |
| 29 | 90 | 74 | 82 | 71 | 9 | T |
| 30 | 87 | 74 | 80 | 74 | 10 | 0 |
| 31 | 80 | 73 | 76 | 85 | 10 | .56 |
| Sum | 2789 | 2250 | | 2609.7 | 156 | .58 |
| Mean | 90.0 | 72.6 | 81.3 | 70.2 | 5.0 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | 1.09 | 1951 | .34 |
| 1947 | .02 | 1952 | .11 |
| 1948 | T | 1953 | 1.53 |
| 1949 | .26 | 1954 | .20 |
| 1950 | 1.89 | 1955 | .58 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.835
Departure from normal -.007
Highest 29.94 Date 31
Lowest 29.69 Date 26

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.3
Departure from normal - 0.2
Highest 92 Date 26
Lowest 70 Date 12

### RAINFALL
(Inches)

Total .58
Departure from normal -.10
Greatest in 24 hours .56
Date 31

### WIND

Average hourly velocity 8.8 mph.
Prevailing direction N
Maximum for five minutes 27
mph. from the N on the 10

### SUNSHINE

Average number hours per day 6.0
Percentage of possible 49

### NUMBER OF DAYS

Clear 12
Partly Cloudy 11
Cloudy 8
.01 inch of rain or more 2
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 7

MR 41983—Panama Canal—11-28-50—300

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# THE PANAMA CANAL

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS Month: APRIL, 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 88 | 69 | 78 | 73 | 9 | 0 |
| 2 | 87 | 70 | 78 | 74 | 8 | T |
| 3 | 85 | 70 | 78 | 76 | 7 | .16 |
| 4 | 87 | 70 | 78 | 77 | 10 | 0 |
| 5 | 88 | 72 | 80 | 75 | 9 | T |
| 6 | 91 | 73 | 82 | 69 | 8 | 0 |
| 7 | 92 | 73 | 82 | 70 | 6 | 0 |
| 8 | 91 | 74 | 82 | 69 | 8 | 0 |
| 9 | 89 | 72 | 80 | 70 | 9 | 0 |
| 10 | 90 | 75 | 82 | 72 | 7 | 0 |
| 11 | 91 | 76 | 84 | 70 | 8 | 0 |
| 12 | 91 | 75 | 83 | 70 | 8 | 0 |
| 13 | 92 | 74 | 83 | 66 | 7 | 0 |
| 14 | 92 | 72 | 82 | 66 | 7 | 0 |
| 15 | 95 | 74 | 84 | 68 | 10 | 0 |
| 16 | 93 | 73 | 83 | 69 | 1 | 0 |
| 17 | 92 | 74 | 83 | 67 | 4 | 0 |
| 18 | 93 | 73 | 83 | 68 | 4 | 0 |
| 19 | 91 | 73 | 82 | 77 | 7 | .10 |
| 20 | 90 | 73 | 82 | 74 | 7 | .12 |
| 21 | 91 | 75 | 83 | 73 | 7 | T |
| 22 | 91 | 76 | 84 | 68 | 9 | 0 |
| 23 | 89 | 72 | 80 | 75 | 4 | 0 |
| 24 | 89 | 73 | 81 | 80 | 5 | 0 |
| 25 | 86 | 73 | 80 | 81 | 10 | 0 |
| 26 | 85 | 74 | 80 | 84 | 8 | 0 |
| 27 | 84 | 75 | 80 | 83 | 7 | 0 |
| 28 | 84 | 75 | 80 | 83 | 6 | .03 |
| 29 | 92 | 72 | 82 | 78 | 7 | T |
| 30 | 95 | 73 | 84 | 72 | 7 | 0 |
| 31 | | | | | | |
| Sum | 2694 | 2193 | -- | -- | 214 | .41 |
| Mean | 89.8 | 73.1 | 81.4 | 73.2 | 7.1 | -- |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | .91 | 1951 | 4.89 |
| 1947 | 1.79 | 1952 | .58 |
| 1948 | .11 | 1953 | .07 |
| 1949 | 2.10 | 1954 | 3.33 |
| 1950 | 1.74 | 1955 | .41 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.827

Departure from normal - .002

Highest 29.97 Date 1

Lowest 29.71 Date 11

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.4

Departure from normal - 0.7

Highest 95 Date 15

Lowest 69 Date 1

### RAINFALL
(Inches)

Total .41

Departure from normal - 2.23

Greatest in 24 hours .22

Date 19 & 20

### WIND

Average hourly velocity 7.8 mph.

Prevailing direction N

Maximum for five minutes 24

mph. from the N on the 8

### SUNSHINE

Average number hours per day 6.9

Percentage of possible 56

### NUMBER OF DAYS

Clear 1

Partly Cloudy 16

Cloudy 13

.01 inch of rain or more 4

Thunderstorms 1

Light fog 0

Dense fog 0

Number of hours with rain 4

MR 41983—Panama Canal—11-28-50—300

MAY 8

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# THE PANAMA CANAL

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, Canal Zone. Month: May 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 93 | 74 | 84 | 76 | 5 | .01 |
| 2 | 87 | 72 | 80 | 77 | 6 | T |
| 3 | 89 | 73 | 81 | 76 | 7 | 0 |
| 4 | 89 | 74 | 82 | 80 | 10 | .03 |
| 5 | 85 | 72 | 78 | 81 | 8 | .02 |
| 6 | 87 | 73 | 80 | 79 | 8 | T |
| 7 | 91 | 74 | 82 | 81 | 8 | .02 |
| 8 | 89 | 75 | 82 | 86 | 8 | 1.07 |
| 9 | 89 | 75 | 82 | 87 | 10 | .35 |
| 10 | 88 | 75 | 82 | 84 | 9 | .32 |
| 11 | 89 | 75 | 82 | 81 | 9 | T |
| 12 | 95 | 75 | 85 | 77 | 10 | .34 |
| 13 | 91 | 75 | 83 | 79 | 10 | .17 |
| 14 | 92 | 73 | 82 | 78 | 4 | .01 |
| 15 | 90 | 74 | 82 | 82 | 8 | 0 |
| 16 | 91 | 75 | 83 | 80 | [illegible] | T |
| 17 | 90 | 76 | 83 | 81 | 9 | 0 |
| 18 | 86 | 75 | 80 | 84 | 9 | 0 |
| 19 | 94 | 76 | 85 | 78 | 8 | 0 |
| 20 | 89 | 75 | 82 | 81 | 8 | .16 |
| 21 | 88 | 74 | 81 | 85 | 10 | T |
| 22 | 88 | 75 | 82 | 90 | 9 | 1.06 |
| 23 | 88 | 75 | 82 | 88 | 9 | .03 |
| 24 | 80 | 72 | 76 | 94 | 10 | 1.59 |
| 25 | 83 | 72 | 78 | 89 | 10 | .12 |
| 26 | 82 | 72 | 77 | 87 | 9 | .02 |
| 27 | 86 | 73 | 80 | 86 | 9 | T |
| 28 | 88 | 73 | 80 | 86 | 8 | T |
| 29 | 87 | 75 | 81 | 87 | 10 | .06 |
| 30 | 85 | 75 | 80 | 88 | 9 | T |
| 31 | 84 | 74 | 79 | 90 | 10 | .93 |
| Sum | 2733 | 2296 | - | - | 267 | 6.31 |
| Mean | 88.2 | 74.1 | 81.2 | 83.2 | 8.6 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | 2.39 | 1951 | 8.22 |
| 1947 | 4.99 | 1952 | 15.06 |
| 1948 | 5.17 | 1953 | 8.80 |
| 1949 | 8.74 | 1954 | 8.65 |
| 1950 | 9.64 | 1955 | 6.31 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.838

Departure from normal +.014

Highest 29.97 Date 5

Lowest 29.68 Date 20

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.2

Departure from normal +0.3

Highest 95 Date 12

Lowest 72 Date 5

### RAINFALL
(Inches)

Total 6.31

Departure from normal -1.62

Greatest in 24 hours 1.62

Date 23 - 24

### WIND

Average hourly velocity 6.0 mph.

Prevailing direction NW

Maximum for five minutes 23

mph. from the N on the 3

### SUNSHINE

Average number hours per day 3.4

Percentage of possible 27

### NUMBER OF DAYS

Clear 0

Partly Cloudy 4

Cloudy 27

.01 inch of rain or more 18

Thunderstorms 10

Light fog 0

Dense fog 0

Number of hours with rain 49

MR 41983—Panama Canal—11-28-50—300

THE PANAMA CANAL
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, CANAL ZONE Month: JUNE 1955

| Date | Air Temperature (Deg. F) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 84 | 73 | 78 | 92 | 10 | [illegible] |
| 2 | 84 | 71 | 78 | 86 | 8 | [illegible] |
| 3 | 84 | 74 | 79 | 90 | 10 | [illegible] |
| 4 | 82 | 73 | 78 | 92 | 10 | .47 |
| 5 | 83 | 74 | 78 | 86 | 9 | 2.84 |
| 6 | 85 | 74 | 80 | 86 | 10 | [illegible] |
| 7 | 85 | 72 | 78 | 85 | 9 | 0 |
| 8 | 84 | 75 | 80 | 84 | 10 | [illegible] |
| 9 | 84 | 75 | 80 | 87 | [illegible] | [illegible] |
| 10 | 85 | 74 | 80 | 90 | 6 | [illegible] |
| 11 | 84 | 72 | 78 | 90 | [illegible] | [illegible] |
| 12 | 85 | 74 | 80 | 87 | 8 | [illegible] |
| 13 | 86 | 72 | 79 | 90 | 10 | .21 |
| 14 | 84 | 75 | 80 | 87 | [illegible] | [illegible] |
| 15 | 81 | 73 | 77 | 92 | 10 | [illegible] |
| 16 | 79 | 73 | 76 | 92 | 10 | .53 |
| 17 | 83 | 75 | 79 | 84 | 7 | 0 |
| 18 | 86 | 74 | 80 | 83 | 6 | .60 |
| 19 | 89 | 75 | 82 | 85 | 8 | .05 |
| 20 | 87 | 76 | 82 | 88 | 10 | 0 |
| 21 | 83 | 75 | 79 | 91 | 10 | .16 |
| 22 | 87 | 73 | 80 | 84 | 5 | 0 |
| 23 | 89 | 76 | 82 | 87 | 9 | .12 |
| 24 | 83 | 75 | 79 | 88 | 10 | T |
| 25 | 85 | 75 | 80 | 84 | 10 | T |
| 26 | 86 | 73 | 80 | 86 | 8 | T |
| 27 | 90 | 74 | 82 | 88 | 10 | .91 |
| 28 | 87 | 75 | 81 | 86 | 9 | .21 |
| 29 | 85 | 74 | 80 | 90 | 9 | .10 |
| 30 | 84 | 75 | 80 | 90 | 8 | .03 |
| 31 | | | | | | |
| Total | 2543 | 2219 | --- | --- | 265 | 8.34 |
| Mean | 84.8 | 74.0 | 79.4 | 87.6 | 8.8 | --- |

## TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | 4.18 | 1951 | 3.97 |
| 1947 | 6.06 | 1952 | 6.49 |
| 1948 | 6.32 | 1953 | 7.48 |
| 1949 | 7.71 | 1954 | 13.26 |
| 1950 | 11.88 | 1955 | 8.34 |

## AIR PRESSURE
(Inches reduced to sea level)

Monthly mean: 29.844
Departure from normal: [illegible]
Highest: 29.94 Date: 15
Lowest: 29.73 Date: 19

## AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 79.4
Departure from normal: -0.7
Highest: 90 Date: 27
Lowest: 72 Date: 2

## RAINFALL
(Inches)

Total: 8.34
Departure from normal: [illegible]
Greatest in 24 hours: 2.85
Date: 5 & 6

## WIND

Average hourly velocity: 4.5 mph
Prevailing direction: N W
Maximum for five minutes: 21
mph. from the N E on the 27

## SUNSHINE

Average number hours per day: 3.3
Percentage of possible: 24

## NUMBER OF DAYS

Clear: 0
Partly Cloudy: 1
Cloudy: 29
.01 inch of rain or more: 21
Thunderstorms: 13
Lightning: 0
Fog: 0
Number of hours with rain: 71

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JUL 26 1955
WEATHER BUREAU

MR 4983—Panama Canal—11-28-50—300

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, Canal Zone **Month:** July, 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 83 | 74 | 78 | 90 | 9 | T |
| 2 | 85 | 73 | 79 | 88 | 8 | .08 |
| 3 | 81 | 74 | 78 | 94 | 10 | 1.13 |
| 4 | 83 | 73 | 78 | 90 | 10 | .75 |
| 5 | 82 | 71 | 76 | 90 | 10 | .07 |
| 6 | 84 | 73 | 78 | 88 | 8 | .64 |
| 7 | 84 | 74 | 79 | 89 | 10 | .19 |
| 8 | 80 | 75 | 78 | 92 | 10 | .41 |
| 9 | 82 | 71 | 76 | 91 | 10 | 2.67 |
| 10 | 81 | 72 | 76 | 91 | 10 | .34 |
| 11 | 84 | 74 | 79 | 87 | 7 | .12 |
| 12 | 85 | 72 | 78 | 88 | 7 | 0 |
| 13 | 84 | 74 | 79 | 87 | 10 | .04 |
| 14 | 85 | 76 | 80 | 89 | 10 | .11 |
| 15 | 86 | 73 | 80 | 86 | 9 | .07 |
| 16 | 81 | 73 | 77 | 93 | 10 | .40 |
| 17 | 79 | 72 | 76 | 91 | 10 | .25 |
| 18 | 83 | 73 | 78 | 87 | 8 | .02 |
| 19 | 87 | 72 | 80 | 86 | 8 | T |
| 20 | 88 | 74 | 81 | 85 | 10 | 0 |
| 21 | 80 | 72 | 76 | 93 | 10 | .20 |
| 22 | 87 | 71 | 79 | 87 | 8 | 0 |
| 23 | 84 | 74 | 79 | 87 | 10 | T |
| 24 | 85 | 74 | 80 | 92 | 9 | 1.02 |
| 25 | 83 | 73 | 78 | 91 | 10 | .38 |
| 26 | 79 | 72 | 76 | 92 | 10 | .53 |
| 27 | 82 | 71 | 76 | 91 | 10 | .60 |
| 28 | 86 | 71 | 78 | 90 | 8 | .01 |
| 29 | 85 | 73 | 79 | 86 | 8 | 0 |
| 30 | 90 | 73 | 82 | 85 | 7 | .03 |
| 31 | 85 | 74 | 80 | 87 | 10 | T |
| Sum | 2593 | 2261 | - | - | 284 | 10.06 |
| Mean | 83.6 | 72.9 | 78.2 | 89.2 | 9.2 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | 7.44 | 1951 | 4.97 |
| 1947 | 7.25 | 1952 | 8.49 |
| 1948 | 6.39 | 1953 | 5.30 |
| 1949 | 6.70 | 1954 | 8.25 |
| 1950 | 12.14 | 1955 | 10.06 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.842

Departure from normal + .012

Highest 29.94 Date 26

Lowest 29.76 Date 6

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 78.2

Departure from normal - 2.2

Highest 90 Date 30

Lowest 71 Date 9

### RAINFALL
(Inches)

Total 10.06

Departure from normal + 2.88

Greatest in 24 hours 2.67

Date 8-9

### WIND

Average hourly velocity 4.3 mph.

Prevailing direction NW

Maximum for five minutes 19

mph. from the NW on the 30

### SUNSHINE

Average number hours per day 1.6

Percentage of possible 13

### NUMBER OF DAYS

Clear 0

Partly Cloudy 3

Cloudy 28

.01 inch of rain or more 23

Thunderstorms 20

Light fog 0

Dense fog 0

Number of hours with rain 109

MR 69126—Panama Canal—7-19-55—300

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: August, 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 79 | 74 | 76 | 94 | 10 | .25 |
| 2 | 83 | 70 | 76 | 94 | 10 | .89 |
| 3 | 83 | 69 | 76 | 89 | 8 | 0 |
| 4 | 86 | 72 | 79 | 88 | 8 | .32 |
| 5 | 88 | 72 | 80 | 90 | 8 | 1.39 |
| 6 | 87 | 73 | 80 | 91 | 8 | .08 |
| 7 | 84 | 72 | 78 | 87 | 8 | .41 |
| 8 | 81 | 71 | 76 | 88 | 10 | .01 |
| 9 | 81 | 73 | 77 | 92 | 9 | 1.07 |
| 10 | 84 | 73 | 78 | 86 | 10 | .01 |
| 11 | 81 | 73 | 77 | 90 | 10 | T |
| 12 | 83 | 74 | 78 | 89 | 10 | .15 |
| 13 | 87 | 74 | 80 | 86 | 8 | 0 |
| 14 | 88 | 74 | 81 | 87 | 6 | 0 |
| 15 | 88 | 74 | 80 | 87 | 8 | T |
| 16 | 84 | 75 | 80 | 86 | 9 | 0 |
| 17 | 86 | 75 | 80 | 88 | 9 | 0 |
| 18 | 85 | 72 | 78 | 90 | 10 | 1.92 |
| 19 | 79 | 72 | 76 | 93 | 9 | .30 |
| 20 | 88 | 72 | 80 | 89 | 7 | .04 |
| 21 | 86 | 74 | 80 | 92 | 8 | .65 |
| 22 | 87 | 75 | 81 | 90 | 8 | .31 |
| 23 | 83 | 73 | 78 | 92 | 10 | .19 |
| 24 | 83 | 74 | 78 | 90 | 10 | .04 |
| 25 | 82 | 74 | 78 | 90 | 9 | .03 |
| 26 | 84 | 74 | 79 | 89 | 9 | .02 |
| 27 | 86 | 72 | 79 | 87 | 5 | 0 |
| 28 | 84 | 73 | 78 | 87 | 7 | 0 |
| 29 | 85 | 69 | 77 | 90 | 9 | 2.97 |
| 30 | 83 | 71 | 77 | 85 | 5 | .23 |
| 31 | 85 | 74 | 80 | 87 | 8 | .02 |
| Sum | 2611 | 2257 | | | [illegible] | 11.30 |
| Mean | 84.2 | 72.8 | 78.5 | 89.1 | [illegible] | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | [illegible] | 1952 | [illegible] |
| 1947 | [illegible] | 1953 | [illegible] |
| 1948 | [illegible] | 1954 | [illegible] |
| 1949 | [illegible] | 1955 | 11.30 |
| 1950 | [illegible] | | |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.934

Departure from normal + .004

Highest 29.97 Date 7

Lowest 29.72 Date 12

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 78.5

Departure from normal - 1.8

Highest 88 Date 14

Lowest 69 Date 29

### RAINFALL
(Inches)

Total 11.30

Departure from normal + 3.66

Greatest in 24 hours 2.97

Date 29

### WIND

Average hourly velocity 4.1 mph.

Prevailing direction NW

Maximum for five minutes 30

mph. from the NE on the 29

### SUNSHINE

Average number hours per day [illegible]

Percentage of possible [illegible]

### NUMBER OF DAYS

Clear 0

Partly Cloudy 5

Cloudy 26

.01 inch of rain or more 22

Thunderstorms 14

Light fog 0

Dense fog 0

Number of hours with rain 78

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MR 6126—Panama Canal—7-19-55—300

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, Canal Zone Month: September, 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 84 | 75 | 80 | 85 | 7 | 0 |
| 2 | 83 | 72 | 78 | 88 | 10 | T |
| 3 | 83 | 73 | 78 | 84 | 10 | .01 |
| 4 | 81 | 72 | 76 | 91 | 9 | .27 |
| 5 | 79 | 71 | 75 | 90 | 9 | .26 |
| 6 | 83 | 70 | 78 | 89 | 10 | .30 |
| 7 | 84 | 73 | 78 | 89 | 9 | .43 |
| 8 | 82 | 72 | 77 | 89 | 9 | T |
| 9 | 86 | 73 | 80 | 86 | 8 | 0 |
| 10 | 87 | 73 | 80 | 87 | 8 | .32 |
| 11 | 82 | 72 | 77 | 90 | 10 | .07 |
| 12 | 82 | 72 | 77 | 86 | 9 | .34 |
| 13 | 84 | 73 | 78 | 87 | 9 | .28 |
| 14 | 82 | 72 | 77 | 90 | 10 | .25 |
| 15 | 82 | 72 | 77 | 90 | 10 | .06 |
| 16 | 83 | 74 | 78 | 85 | 9 | T |
| 17 | 85 | 76 | 80 | 78 | 6 | 0 |
| 18 | 84 | 74 | 79 | 88 | 9 | .01 |
| 19 | 82 | 73 | 78 | 89 | 10 | .01 |
| 20 | 86 | 72 | 79 | 87 | 6 | 0 |
| 21 | 86 | 72 | 79 | 87 | 8 | .97 |
| 22 | 87 | 72 | 80 | 90 | 9 | 2.71 |
| 23 | 83 | 72 | 78 | 90 | 8 | .04 |
| 24 | 83 | 74 | 78 | 87 | 6 | 0 |
| 25 | 84 | 73 | 78 | 87 | 7 | 0 |
| 26 | 85 | 74 | 80 | 87 | 7 | .04 |
| 27 | 84 | 74 | 80 | 86 | 9 | .10 |
| 28 | 86 | 73 | 78 | 86 | 8 | 1.19 |
| 29 | 82 | 73 | 76 | 92 | 9 | .11 |
| 30 | 83 | 72 | 78 | 89 | 6 | 0 |
| 31 | | | | | | |
| Sum | [illegible] | [illegible] | - | - | 254 | 8.28 |
| Mean | 83.5 | 72.8 | 78.2 | 87.7 | 8.5 | - |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.841

Departure from normal + .016

Highest 29.96 Date 6

Lowest 29.74 Date 24

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 78.2

Departure from normal - 1.6

Highest 87 Date 22

Lowest 73 Date 28

### RAINFALL
(Inches)

Total 8.28

Departure from normal + 0.36

Greatest in 24 hours 2.71

Date 21 & 22

### WIND

Average hourly velocity 4.8 mph.

Prevailing direction S

Maximum for five minutes 20

mph. from the SW on the 22

### SUNSHINE

Average number hours per day -

Percentage of possible -

### NUMBER OF DAYS

Clear 0

Partly Cloudy 7

Cloudy 23

.01 inch of rain or more 20

Thunderstorms 10

Light fog 1

Dense fog 0

Number of hours with rain 86

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | 2.60 | 1951 | 9.79 |
| 1947 | [illegible] | 1952 | [illegible] |
| 1948 | [illegible] | 1953 | 7.07 |
| 1949 | [illegible] | 1954 | [illegible] |
| 1950 | 3.79 | 1955 | [illegible] |

MR 69126—Panama Canal—7-19-55—300

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, Canal Zone **Month:** October, 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 79 | 74 | 76 | 91 | 9 | .14 |
| 2 | 82 | 74 | 78 | 90 | 9 | .83 |
| 3 | 84 | 74 | 79 | 83 | 6 | 0 |
| 4 | 82 | 74 | 78 | 86 | 10 | T |
| 5 | 82 | 75 | 78 | 90 | 8 | .24 |
| 6 | 85 | 74 | 80 | 87 | 8 | 0 |
| 7 | 84 | 73 | 78 | 87 | 9 | 0 |
| 8 | 81 | 74 | 78 | 93 | 8 | .85 |
| 9 | 82 | 74 | 78 | 88 | 8 | .03 |
| 10 | 82 | 75 | 78 | 86 | 9 | .06 |
| 11 | 84 | 72 | 78 | 89 | 8 | T |
| 12 | 84 | 73 | 78 | 88 | 9 | T |
| 13 | 81 | 74 | 78 | 86 | 10 | 0 |
| 14 | 82 | 73 | 78 | 91 | 10 | .51 |
| 15 | 82 | 74 | 78 | 92 | 10 | .06 |
| 16 | 83 | 72 | 78 | 91 | 10 | .39 |
| 17 | 82 | 72 | 77 | 90 | 10 | .49 |
| 18 | 82 | 75 | 78 | 82 | 7 | .03 |
| 19 | 83 | 74 | 78 | 90 | 10 | .27 |
| 20 | 81 | 73 | 77 | 90 | 9 | .48 |
| 21 | 82 | 72 | 77 | 91 | 10 | .36 |
| 22 | 82 | 71 | 76 | 89 | 9 | .02 |
| 23 | 83 | 72 | 78 | 84 | 10 | .17 |
| 24 | 81 | 76 | 78 | 83 | 10 | T |
| 25 | 82 | 75 | 78 | 78 | 8 | 0 |
| 26 | 82 | 72 | 77 | 78 | 2 | 0 |
| 27 | 82 | 72 | 77 | 82 | 5 | T |
| 28 | 84 | 74 | 79 | 86 | 9 | .06 |
| 29 | 82 | 73 | 78 | 86 | 8 | 0 |
| 30 | 84 | 72 | 78 | 87 | 7 | .19 |
| 31 | 84 | 73 | 78 | 89 | 9 | 1.76 |
| Sum | 2555 | 2273 | - | - | 264 | 6.46 |
| Mean | 82.4 | 73.4 | 77.9 | 87.3 | 8.5 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | 14.05 | 1951 | 13.10 |
| 1947 | 9.68 | 1952 | 14.81 |
| 1948 | 13.63 | 1953 | 14.07 |
| 1949 | 11.68 | 1954 | 14.18 |
| 1950 | 7.68 | 1955 | 6.46 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.845

Departure from normal -.020

Highest 29.96 Date 20

Lowest 29.73 Date 12

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 77.9

Departure from normal - 1.3

Highest 85 Date 6

Lowest 71 Date 22

### RAINFALL
(Inches)

Total 6.46

Departure from normal -4.10

Greatest in 24 hours 2.49

Date Oct. 31, Nov. 1

### WIND

Average hourly velocity 5.9 mph.

Prevailing direction S

Maximum for five minutes 24

mph. from the SW on the 23

### SUNSHINE

Average number hours per day -

Percentage of possible -

### NUMBER OF DAYS

Clear 1

Partly Cloudy 4

Cloudy 26

.01 inch of rain or more 19

Thunderstorms 11

Light fog 0

Dense fog 0

Number of hours with rain 99

NOV 25 1955 WEATHER BUREAU

MR 69126—Panama Canal—7-19-55—300

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# THE PANAMA CANAL

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** NOVEMBER, 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 78 | 73 | 76 | 94 | 10 | .81 |
| 2 | 83 | 73 | 78 | 89 | 9 | 3.00 |
| 3 | 82 | 72 | 77 | 87 | 8 | .04 |
| 4 | 84 | 72 | 78 | 88 | 9 | .12 |
| 5 | 82 | 73 | 78 | 87 | 7 | 0 |
| 6 | 83 | 74 | 78 | 86 | 8 | T |
| 7 | 85 | 73 | 79 | 86 | 8 | 0 |
| 8 | 87 | 75 | 81 | 92 | 8 | .67 |
| 9 | 83 | 75 | 79 | 90 | 10 | T |
| 10 | 83 | 74 | 78 | 89 | 10 | T |
| 11 | 84 | 73 | 78 | 91 | 10 | 1.59 |
| 12 | 84 | 72 | 78 | 88 | 9 | .28 |
| 13 | 82 | 73 | 78 | 91 | 10 | .02 |
| 14 | 82 | 72 | 77 | 91 | 9 | .29 |
| 15 | 79 | 71 | 75 | 91 | 10 | .01 |
| 16 | 82 | 72 | 77 | 87 | 5 | .02 |
| 17 | 83 | 71 | 77 | 92 | 10 | .63 |
| 18 | 84 | 73 | 78 | 93 | 10 | 3.03 |
| 19 | 80 | 73 | 76 | 90 | 10 | .12 |
| 20 | 82 | 72 | 77 | 87 | 8 | .06 |
| 21 | 84 | 73 | 78 | 87 | 8 | .10 |
| 22 | 85 | 72 | 78 | 89 | 8 | .49 |
| 23 | 84 | 72 | 78 | 92 | 8 | 1.59 |
| 24 | 81 | 73 | 77 | 92 | 9 | .49 |
| 25 | 85 | 72 | 78 | 88 | 8 | .17 |
| 26 | 82 | 72 | 77 | 90 | 8 | .34 |
| 27 | 84 | 72 | 78 | 88 | 9 | .10 |
| 28 | 86 | 73 | 80 | 87 | 9 | .18 |
| 29 | 82 | 73 | 78 | 89 | 10 | 1.16 |
| 30 | 79 | 72 | 76 | 94 | 10 | .44 |
| 31 | | | | | | |
| Sum | 2484 | 2180 | - | - | 265 | 15.75 |
| Mean | 82.8 | 72.7 | 77.8 | 89.4 | 8.8 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | 8.08 | 1951 | 8.59 |
| 1947 | 10.25 | 1952 | 10.85 |
| 1948 | 12.76 | 1953 | 6.28 |
| 1949 | 10.06 | 1954 | 13.62 |
| 1950 | 10.83 | 1955 | 15.75 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.820

Departure from normal +.002

Highest 29.94 Date 4

Lowest 29.68 Date 10

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 77.8

Departure from normal -1.4

Highest 87 Date 8

Lowest 71 Date 15

### RAINFALL
(Inches)

Total 15.75

Departure from normal +5.52

Greatest in 24 hours 3.10

Date 17 - 18

### WIND

Average hourly velocity 4.2 mph.

Prevailing direction NW

Maximum for five minutes 17

mph. from the NW on the 25

### SUNSHINE

Average number hours per day -

Percentage of possible -

### NUMBER OF DAYS

Clear 0

Partly Cloudy 2

Cloudy 28

.01 inch of rain or more 25

Thunderstorms 19

Light fog 0

Dense fog 0

Number of hours with rain 108

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, Canal Zone **Month:** December, 1955

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 82 | 72 | 77 | 89 | 9 | T |
| 2 | 81 | 72 | 76 | 88 | 7 | .10 |
| 3 | 83 | 72 | 78 | 85 | 5 | T |
| 4 | 85 | 73 | 78 | 89 | 9 | 1.67 |
| 5 | 84 | 73 | 78 | 88 | 9 | .16 |
| 6 | 82 | 73 | 78 | 87 | 8 | 0 |
| 7 | 82 | 73 | 78 | 85 | 7 | 0 |
| 8 | 82 | 70 | 76 | 87 | 7 | .81 |
| 9 | 86 | 72 | 79 | 88 | 7 | .18 |
| 10 | 84 | 73 | 78 | 89 | 8 | .52 |
| 11 | 86 | 74 | 80 | 88 | 8 | .66 |
| 12 | 85 | 73 | 79 | 91 | 10 | .73 |
| 13 | 85 | 72 | 78 | 89 | 8 | .48 |
| 14 | 83 | 72 | 78 | 81 | 8 | .60 |
| 15 | 83 | 71 | 77 | 85 | 8 | 0 |
| 16 | 84 | 71 | 78 | 88 | 7 | .09 |
| 17 | 83 | 71 | 77 | 89 | 7 | .48 |
| 18 | 85 | 72 | 78 | 87 | 7 | .05 |
| 19 | 86 | 73 | 80 | 84 | 10 | 0 |
| 20 | 85 | 74 | 80 | 82 | 8 | .05 |
| 21 | 85 | 72 | 78 | 91 | 9 | 1.70 |
| 22 | 83 | 71 | 77 | 86 | 9 | .01 |
| 23 | 85 | 72 | 78 | 89 | 9 | .22 |
| 24 | 85 | 71 | 78 | 84 | 7 | 0 |
| 25 | 85 | 72 | 78 | 82 | 3 | 0 |
| 26 | 86 | 71 | 78 | 79 | 4 | .12 |
| 27 | 82 | 71 | 76 | 88 | 9 | .74 |
| 28 | 83 | 71 | 77 | 88 | 7 | .53 |
| 29 | 84 | 71 | 78 | 83 | 7 | .06 |
| 30 | 87 | 71 | 79 | 88 | 6 | 0 |
| 31 | 86 | 72 | 79 | 79 | 7 | 0 |
| Sum | 2605 | 2231 | - | - | 234 | 9.96 |
| Mean | 84.0 | 72.0 | 78.0 | 86.3 | 7.5 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1946 | 5.17 | 1951 | 4.07 |
| 1947 | 5.98 | 1952 | 13.46 |
| 1948 | 2.33 | 1953 | 5.23 |
| 1949 | 6.93 | 1954 | 3.80 |
| 1950 | 4.60 | 1955 | 9.96 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.843

Departure from normal + .023

Highest 29.97 Date 24

Lowest 29.70 Date 30

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 78.0

Departure from normal - 1.8

Highest 87 Date 30

Lowest 70 Date 8

### RAINFALL
(Inches)

Total 9.96

Departure from normal + 4.90

Greatest in 24 hours 1.75

Date 20-21

### WIND

Average hourly velocity 4.6 mph.

Prevailing direction NW

Maximum for five minutes 23

mph. from the NE on the 11

### SUNSHINE

Average number hours per day -

Percentage of possible -

### NUMBER OF DAYS

Clear 1

Partly Cloudy 14

Cloudy 16

.01 inch of rain or more 21

Thunderstorms 11

Light fog 1

Dense fog 0

Number of hours with rain 56

MR 69126—Panama Canal—7-19-55—300

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, C. Z. Month: JANUARY, 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 84 | 71 | 78 | 81 | 7 | .06 |
| 2 | 85 | 71 | 78 | 85 | 7 | .02 |
| 3 | 86 | 72 | 79 | 82 | 9 | T |
| 4 | 84 | 73 | 80 | 85 | 9 | .28 |
| 5 | 83 | 72 | 78 | 82 | 9 | .07 |
| 6 | 84 | 70 | 77 | 78 | 6 | T |
| 7 | 78 | 70 | 74 | 84 | 9 | .03 |
| 8 | 83 | 69 | 76 | 77 | 6 | 0 |
| 9 | 84 | 66 | 75 | 70 | 2 | 0 |
| 10 | 83 | 65 | 74 | 80 | 7 | 0 |
| 11 | 84 | 67 | 76 | 74 | 8 | 0 |
| 12 | 85 | 68 | 76 | 77 | 8 | T |
| 13 | 83 | 68 | 76 | 75 | 6 | T |
| 14 | 81 | 68 | 74 | 78 | 7 | T |
| 15 | 84 | 69 | 76 | 75 | 8 | 0 |
| 16 | 82 | 68 | 75 | 76 | 8 | 0 |
| 17 | 86 | 68 | 77 | 76 | 4 | 0 |
| 18 | 87 | 73 | 80 | 80 | 6 | T |
| 19 | 88 | 72 | 80 | 78 | 4 | 0 |
| 20 | 88 | 71 | 80 | 77 | 3 | T |
| 21 | 88 | 71 | 80 | 74 | 4 | 0 |
| 22 | 87 | 73 | 80 | 78 | 3 | 0 |
| 23 | 89 | 71 | 80 | 77 | 5 | .01 |
| 24 | 84 | 72 | 78 | 84 | 10 | .02 |
| 25 | 85 | 71 | 78 | 86 | 9 | .01 |
| 26 | 85 | 71 | 78 | 88 | 9 | 1.42 |
| 27 | 80 | 72 | 76 | 90 | 10 | .04 |
| 28 | 85 | 72 | 78 | 82 | 9 | .01 |
| 29 | 86 | 72 | 79 | 87 | 8 | .07 |
| 30 | 82 | 73 | 78 | 85 | 9 | T |
| 31 | 84 | 71 | 78 | 87 | 9 | .59 |
| Sum | 2617 | 2180 | 77.4 | | 218 | 2.63 |
| Mean | 84.4 | 70.3 | | 80.3 | 7.0 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1947 | 1.09 | 1952 | .41 |
| 1948 | 1.26 | 1953 | 2.66 |
| 1949 | .15 | 1954 | .61 |
| 1950 | .26 | 1955 | 4.32 |
| 1951 | 1.43 | 1956 | 2.63 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.848

Departure from normal + .007

Highest 29.99 Date 13

Lowest 29.71 Date 3

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 77.4

Departure from normal - 2.5

Highest 89 Date 23

Lowest 65 Date 10

### RAINFALL
(Inches)

Total 2.63

Departure from normal + 1.51

Greatest in 24 hours 1.44

Date 26-27

### WIND

Average hourly velocity 7.0 mph.

Prevailing direction NW

Maximum for five minutes 23 mph. from the N on the 13

### SUNSHINE

Average number hours per day 5.3

Percentage of possible 46

### NUMBER OF DAYS

Clear 3

Partly Cloudy 12

Cloudy 16

.01 inch of rain or more 13

Thunderstorms 4

Light fog 0

Dense fog 0

Number of hours with rain 32

MR 69126—Panama Canal—7-19-55—300

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, Canal Zone **Month:** February, 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 83 | 71 | 77 | 83 | 9 | 0 |
| 2 | 87 | 71 | 79 | 85 | 6 | .69 |
| 3 | 87 | 72 | 80 | 82 | 5 | T |
| 4 | 87 | 72 | 80 | 82 | 4 | T |
| 5 | 85 | 73 | 79 | 85 | 8 | .38 |
| 6 | 87 | 73 | 80 | 85 | 6 | .08 |
| 7 | 88 | 74 | 81 | 78 | 4 | 0 |
| 8 | 87 | 74 | 80 | 79 | 6 | T |
| 9 | 89 | 73 | 81 | 78 | 2 | 0 |
| 10 | 87 | 72 | 80 | 80 | 6 | 0 |
| 11 | 87 | 72 | 80 | 79 | 3 | 0 |
| 12 | 87 | 72 | 80 | 80 | 7 | T |
| 13 | 88 | 71 | 80 | 74 | 5 | 0 |
| 14 | 89 | 71 | 80 | 73 | 4 | T |
| 15 | 89 | 72 | 80 | 74 | 8 | 0 |
| 16 | 88 | 74 | 81 | 74 | 4 | 0 |
| 17 | 88 | 72 | 80 | 77 | 5 | 0 |
| 18 | 89 | 73 | 81 | 76 | 6 | 0 |
| 19 | 87 | 73 | 80 | 76 | 6 | 0 |
| 20 | 88 | 74 | 81 | 74 | 6 | 0 |
| 21 | 90 | 71 | 80 | 73 | 4 | 0 |
| 22 | 86 | 72 | 79 | 77 | 7 | T |
| 23 | 90 | 70 | 80 | 72 | 2 | 0 |
| 24 | 90 | 70 | 80 | 75 | 3 | 0 |
| 25 | 89 | 72 | 80 | 78 | 8 | .05 |
| 26 | 89 | 73 | 81 | 77 | 3 | 0 |
| 27 | 87 | 73 | 80 | 79 | 8 | .02 |
| 28 | 91 | 75 | 83 | 72 | 4 | 0 |
| 29 | 88 | 73 | 80 | 74 | 4 | T |
| 30 | | | | | | |
| 31 | | | | | | |
| Sum | 2547 | 2098 | - | - | 153 | 1.22 |
| Mean | 87.8 | 72.3 | 80.0 | 77.6 | 5.2 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1947 | .53 | 1952 | .11 |
| 1948 | .02 | 1953 | 2.49 |
| 1949 | T | 1954 | .86 |
| 1950 | .16 | 1955 | 2.43 |
| 1951 | 1.59 | 1956 | 1.22 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.819

Departure from normal - .036

Highest 29.94 Date 1

Lowest 29.72 Date 3

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.0

Departure from normal - 0.4

Highest 91 Date 28

Lowest 70 Date 24

### RAINFALL
(Inches)

Total 1.22

Departure from normal - .57

Greatest in 24 hours .69

Date 2

### WIND

Average hourly velocity 7.6 mph.

Prevailing direction NW

Maximum for five minutes 22

mph. from the N on the 29

### SUNSHINE

Average number hours per day 7.9

Percentage of possible 66

### NUMBER OF DAYS

Clear 5

Partly Cloudy 19

Cloudy 5

.01 inch of rain or more 5

Thunderstorms 3

Light fog 0

Dense fog 0

Number of hours with rain 8

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** MARCH 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 87 | 72 | 80 | 73 | 8 | T |
| 2 | 89 | 71 | 80 | 73 | 6 | 0 |
| 3 | 90 | 73 | 82 | 76 | 4 | 0 |
| 4 | 87 | 75 | 81 | 76 | 6 | 0 |
| 5 | 92 | 75 | 84 | 74 | 5 | 0 |
| 6 | 89 | 73 | 81 | 77 | 5 | 0 |
| 7 | 90 | 74 | 82 | 73 | 4 | 0 |
| 8 | 89 | 73 | 81 | 77 | 6 | T |
| 9 | 90 | 72 | 81 | 74 | 7 | 0 |
| 10 | 90 | 72 | 81 | 74 | 8 | 0 |
| 11 | 91 | 72 | 82 | 71 | 2 | 0 |
| 12 | 91 | 71 | 81 | 70 | 4 | 0 |
| 13 | 88 | 70 | 79 | 74 | 5 | 0 |
| 14 | 88 | 70 | 79 | 74 | 5 | T |
| 15 | 88 | 70 | 79 | 73 | 4 | 0 |
| 16 | 89 | 70 | 80 | 74 | 3 | 0 |
| 17 | 92 | 71 | 82 | 71 | 2 | 0 |
| 18 | 92 | 71 | 82 | 74 | 4 | 0 |
| 19 | 91 | 73 | 82 | 76 | 4 | 0 |
| 20 | 90 | 73 | 82 | 75 | 7 | T |
| 21 | 92 | 72 | 82 | 74 | 4 | T |
| 22 | 90 | 74 | 82 | 78 | 6 | 0 |
| 23 | 86 | 72 | 79 | 84 | 9 | .40 |
| 24 | 87 | 72 | 80 | 80 | 8 | 0 |
| 25 | 90 | 72 | 81 | 74 | 8 | 0 |
| 26 | 85 | 73 | 79 | 82 | 10 | T |
| 27 | 93 | 74 | 84 | 75 | 7 | 0 |
| 28 | 90 | 75 | 82 | 76 | 6 | T |
| 29 | 94 | 74 | 84 | 74 | 9 | 0 |
| 30 | 94 | 74 | 84 | 70 | 6 | 0 |
| 31 | 89 | 75 | 82 | 74 | 9 | T |
| Sum | 2783 | 2248 | --- | --- | 181 | .40 |
| Mean | 89.8 | 72.5 | 81.2 | 74.9 | 5.8 | --- |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1947 | .02 | 1952 | .11 |
| 1948 | T | 1953 | 1.53 |
| 1949 | .06 | 1954 | .20 |
| 1950 | 1.89 | 1955 | .58 |
| 1951 | .34 | 1956 | .40 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.841

Departure from normal -.001

Highest 29.96 Date 20

Lowest 29.69 Date 6

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.2

Departure from normal -0.3

Highest 94 Date 30

Lowest 70 Date 16

### RAINFALL
(Inches)

Total .40

Departure from normal -.28

Greatest in 24 hours .40

Date 23

### WIND

Average hourly velocity 9.3 mph.

Prevailing direction NW

Maximum for five minutes 25

mph. from the NW on the 30

### SUNSHINE

Average number hours per day 8.4

Percentage of possible 69

### NUMBER OF DAYS

Clear 3

Partly Cloudy 20

Cloudy 8

.01 inch of rain or more 1

Thunderstorms 0

Light fog 0

Dense fog 0

Number of hours with rain 2

MR 69126—Panama Canal—7-19-55—300

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, Canal Zone **Month:** April, 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 91 | 76 | 84 | 72 | 7 | T |
| 2 | 93 | 74 | 84 | 71 | 8 | 0 |
| 3 | 93 | 75 | 84 | 72 | 8 | 0 |
| 4 | 94 | 75 | 84 | 75 | 7 | 0 |
| 5 | 94 | 74 | 84 | 72 | 7 | 0 |
| 6 | 94 | 74 | 84 | 69 | 3 | 0 |
| 7 | 93 | 74 | 84 | 70 | 7 | 0 |
| 8 | 96 | 72 | 84 | 74 | 7 | 0 |
| 9 | 95 | 74 | 84 | 72 | 6 | 0 |
| 10 | 94 | 75 | 84 | 75 | 8 | 0 |
| 11 | 84 | 75 | 79 | 84 | 10 | 0 |
| 12 | 83 | 75 | 79 | 87 | 10 | T |
| 13 | 86 | 75 | 80 | 84 | 10 | .30 |
| 14 | 80 | 73 | 76 | 86 | 10 | .09 |
| 15 | 87 | 73 | 80 | 77 | 6 | 0 |
| 16 | 87 | 72 | 80 | 79 | 6 | T |
| 17 | 88 | 74 | 81 | 79 | 6 | 0 |
| 18 | 88 | 75 | 82 | 89 | 10 | .65 |
| 19 | 92 | 74 | 83 | 69 | 6 | T |
| 20 | 91 | 72 | 82 | 71 | 5 | 0 |
| 21 | 91 | 74 | 82 | 73 | 9 | T |
| 22 | 92 | 75 | 84 | 74 | 8 | T |
| 23 | 92 | 76 | 84 | 76 | 8 | T |
| 24 | 92 | 76 | 84 | 72 | 6 | 0 |
| 25 | 94 | 75 | 84 | 69 | 4 | 0 |
| 26 | 92 | 74 | 83 | 74 | 5 | 0 |
| 27 | 83 | 74 | 78 | 90 | 8 | 1.15 |
| 28 | 92 | 73 | 82 | 74 | 8 | .04 |
| 29 | 89 | 73 | 81 | 79 | 6 | T |
| 30 | 89 | 74 | 82 | 79 | 8 | 0 |
| 31 | | | | | | |
| Sum | 2709 | 2224 | - | - | 217 | 2.23 |
| Mean | 90.3 | 74.1 | 82.2 | 76.2 | 7.2 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1947 | 1.79 | 1952 | .58 |
| 1948 | .11 | 1953 | .07 |
| 1949 | 2.10 | 1954 | 3.33 |
| 1950 | 1.74 | 1955 | .41 |
| 1951 | 4.89 | 1956 | 2.23 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.818

Departure from normal - .011

Highest 29.92 Date 14

Lowest 29.69 Date 5

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.2

Departure from normal + 0.1

Highest 96 Date 8

Lowest 72 Date 16

### RAINFALL
(Inches)

Total 2.23

Departure from normal - 0.40

Greatest in 24 hours 1.15

Date 27

### WIND

Average hourly velocity 7.7 mph.

Prevailing direction NW

Maximum for five minutes 24

mph. from the N on the 1

### SUNSHINE

Average number hours per day 8.1

Percentage of possible 66

### NUMBER OF DAYS

Clear 1

Partly Cloudy 15

Cloudy 14

.01 inch of rain or more 5

Thunderstorms 3

Light fog 0

Dense fog 0

Number of hours with rain 0 14

MR 69126—Panama Canal—7-19-55—300

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

LIBRARY
JUN 21 1956
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station Balboa Heights, Canal Zone Month: May 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 92 | 75 | 84 | 76 | 8 | T |
| 2 | 91 | 76 | 84 | 77 | 7 | 0 |
| 3 | 93 | 76 | 84 | 83 | 9 | .72 |
| 4 | 85 | 76 | 80 | 87 | 10 | .08 |
| 5 | 89 | 75 | 82 | 84 | 9 | .16 |
| 6 | 83 | 76 | 80 | 87 | 9 | .06 |
| 7 | 84 | 76 | 80 | 85 | 10 | T |
| 8 | 77 | 73 | 75 | 94 | 10 | .80 |
| 9 | 86 | 72 | 79 | 84 | 10 | .01 |
| 10 | 86 | 73 | 80 | 86 | 8 | .61 |
| 11 | 88 | 74 | 81 | 87 | 9 | .45 |
| 12 | 86 | 74 | 80 | 87 | 10 | T |
| 13 | 84 | 73 | 78 | 88 | 9 | .39 |
| 14 | 84 | 72 | 78 | 92 | 9 | 2.62 |
| 15 | 87 | 71 | 79 | 84 | 7 | 0 |
| 16 | 86 | 73 | 80 | 82 | 9 | 0 |
| 17 | 89 | 73 | 81 | 84 | 7 | .07 |
| 18 | 88 | 73 | 80 | 83 | 6 | 0 |
| 19 | 88 | 74 | 81 | 88 | 10 | 2.90 |
| 20 | 85 | 73 | 79 | 91 | 9 | .12 |
| 21 | 80 | 73 | 76 | 92 | 10 | .04 |
| 22 | 83 | 75 | 79 | 88 | 8 | .11 |
| 23 | 81 | 72 | 76 | 91 | 10 | 1.93 |
| 24 | 81 | 73 | 77 | 87 | 10 | .01 |
| 25 | 82 | 75 | 78 | 87 | 8 | .05 |
| 26 | 84 | 73 | 78 | 86 | 8 | 0 |
| 27 | 88 | 74 | 81 | 84 | 7 | .07 |
| 28 | 82 | 73 | 78 | 85 | 10 | T |
| 29 | 84 | 73 | 78 | 86 | 9 | T |
| 30 | 88 | 74 | 81 | 84 | 9 | .01 |
| 31 | 82 | 75 | 78 | 87 | 10 | T |
| Sum | 2646 | 2288 | - | - | 274 | 10.81 |
| Mean | 85.4 | 73.8 | 79.6 | 86.0 | 8.8 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1947 | 4.99 | 1952 | 15.06 |
| 1948 | 5.17 | 1953 | 8.80 |
| 1949 | 8.74 | 1954 | 8.65 |
| 1950 | 9.64 | 1955 | 6.31 |
| 1951 | 8.22 | 1956 | 10.81 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.820

Departure from normal - .004

Highest 29.95 Date 25

Lowest 29.68 Date 3

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.6

Departure from normal - 1.3

Highest 93 Date 3

Lowest 71 Date 15

### RAINFALL
(Inches)

Total 10.81

Departure from normal + 2.83

Greatest in 24 hours 2.83

Date 14-15

### WIND

Average hourly velocity 5.4 mph.

Prevailing direction NW

Maximum for five minutes 18

mph. from the NW on the 10

### SUNSHINE

Average number hours per day 5.4

Percentage of possible 43

### NUMBER OF DAYS

Clear 0

Partly Cloudy 5

Cloudy 26

.01 inch of rain or more 20

Thunderstorms 14

Light fog 0

Dense fog 0

Number of hours with rain 64

MR 69126—Panama Canal—7-19-55—300

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, Canal Zone Month: June, 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 88 | 73 | 80 | 84 | 5 | T |
| 2 | 87 | 76 | 82 | 83 | 9 | T |
| 3 | 79 | 74 | 76 | 96 | 10 | .15 |
| 4 | 84 | 74 | 79 | 91 | 10 | .48 |
| 5 | 78 | 74 | 76 | 94 | 10 | .61 |
| 6 | 83 | 74 | 78 | 89 | 9 | .19 |
| 7 | 80 | 75 | 78 | 92 | 10 | 1.43 |
| 8 | 83 | 73 | 78 | 90 | 6 | .10 |
| 9 | 83 | 75 | 79 | 90 | 8 | .21 |
| 10 | 81 | 74 | 78 | 86 | 9 | .18 |
| 11 | 81 | 73 | 77 | 89 | 10 | 2.71 |
| 12 | 89 | 73 | 81 | 88 | 8 | .60 |
| 13 | 79 | 74 | 76 | 94 | 9 | .04 |
| 14 | 86 | 73 | 80 | 90 | 9 | .09 |
| 15 | 85 | 72 | 78 | 92 | 10 | 1.10 |
| 16 | 82 | 71 | 76 | 89 | 8 | T |
| 17 | 80 | 72 | 76 | 91 | 10 | .94 |
| 18 | 83 | 72 | 78 | 89 | 8 | .04 |
| 19 | 82 | 73 | 78 | 89 | 8 | .34 |
| 20 | 85 | 72 | 78 | 87 | 6 | .01 |
| 21 | 87 | 72 | 80 | 88 | 9 | .24 |
| 22 | 83 | 75 | 79 | 90 | 9 | .25 |
| 23 | 86 | 74 | 80 | 88 | 10 | 0 |
| 24 | 84 | 74 | 79 | 88 | 9 | 0 |
| 25 | 83 | 73 | 78 | 89 | 10 | .06 |
| 26 | 88 | 72 | 80 | 86 | 9 | T |
| 27 | 92 | 74 | 83 | 80 | 7 | .01 |
| 28 | 85 | 74 | 80 | 86 | 9 | .02 |
| 29 | 87 | 74 | 80 | 84 | 9 | 0 |
| 30 | 87 | 74 | 80 | 90 | 10 | .30 |
| 31 | | | | | | |
| Sum | 2520 | 2203 | | | 263 | 10.10 |
| Mean | 84.0 | 73.4 | 78.7 | 88.7 | 8.8 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1947 | 6.06 | 1952 | 6.49 |
| 1948 | 6.32 | 1953 | 7.48 |
| 1949 | 7.71 | 1954 | 13.86 |
| 1950 | 13.88 | 1955 | 8.34 |
| 1951 | 3.97 | 1956 | 10.10 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.842

Departure from normal +.013

Highest 29.96 Date 18

Lowest 29.72 Date 2

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 78.7

Departure from normal -1.4

Highest 92 Date 27

Lowest 71 Date 16

### RAINFALL
(Inches)

Total 10.10

Departure from normal +1.89

Greatest in 24 hours 2.71

Date 11

### WIND

Average hourly velocity 4.7 mph.

Prevailing direction NW

Maximum for five minutes 21

mph. from the NW on the 2

### SUNSHINE

Average number hours per day 4.3

Percentage of possible 34

### NUMBER OF DAYS

Clear 0

Partly Cloudy 4

Cloudy 26

.01 inch of rain or more 23

Thunderstorms 17

Light fog 0

Dense fog 0

Number of hours with rain 95

MR 69126—Panama Canal—7-19-55—300

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** July 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 80 | 75 | 82 | 86 | 9 | .06 |
| 2 | 84 | 72 | 78 | 90 | 10 | 5.37 |
| 3 | 82 | 73 | 78 | 94 | 10 | 1.59 |
| 4 | 83 | 72 | 78 | 87 | 8 | 1.01 |
| 5 | 81 | 72 | 76 | 90 | 10 | .14 |
| 6 | 86 | 71 | 78 | 85 | 8 | .02 |
| 7 | 89 | 72 | 80 | 86 | 6 | .05 |
| 8 | 86 | 72 | 79 | 88 | 9 | T |
| 9 | 86 | 72 | 79 | 85 | 7 | T |
| 10 | 82 | 74 | 78 | 89 | 10 | .01 |
| 11 | 87 | 74 | 80 | 87 | 10 | .02 |
| 12 | 87 | 73 | 80 | 89 | 10 | 1.26 |
| 13 | 80 | 73 | 76 | 92 | 10 | T |
| 14 | 87 | 74 | 80 | 89 | 10 | T |
| 15 | 84 | 73 | 78 | 92 | 10 | .03 |
| 16 | 87 | 73 | 80 | 85 | 8 | 0 |
| 17 | 85 | 74 | 80 | 90 | 10 | .11 |
| 18 | 86 | 73 | 80 | 88 | 9 | .47 |
| 19 | 86 | 73 | 80 | 86 | 10 | .08 |
| 20 | 86 | 71 | 78 | 87 | 10 | .75 |
| 21 | 87 | 73 | 80 | 90 | 10 | .61 |
| 22 | 84 | 73 | 78 | 87 | 9 | .25 |
| 23 | 84 | 72 | 78 | 90 | 9 | .42 |
| 24 | 82 | 71 | 76 | 91 | 10 | .02 |
| 25 | 88 | 70 | 79 | 87 | 8 | .08 |
| 26 | 91 | 72 | 82 | 84 | 7 | 0 |
| 27 | 85 | 73 | 79 | 91 | 10 | .25 |
| 28 | 83 | 72 | 78 | 89 | 7 | .14 |
| 29 | 90 | 74 | 82 | 87 | 7 | 0 |
| 30 | 88 | 74 | 81 | 88 | 9 | .20 |
| 31 | 87 | 74 | 80 | 91 | 10 | .14 |
| Sum | 2653 | 2234 | | | 280 | 13.08 |
| Mean | 85.6 | 72.7 | 79.2 | 88.3 | 9.0 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1947 | 7.25 | 1952 | 8.96 |
| 1948 | 6.39 | 1953 | 5.30 |
| 1949 | 6.78 | 1954 | 8.25 |
| 1950 | 12.14 | 1955 | 10.06 |
| 1951 | 4.97 | 1956 | 13.08 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.848

Departure from normal +.017

Highest 29.99 Date 5

Lowest 29.71 Date 29

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.2

Departure from normal -1.2

Highest 91 Date 25

Lowest 70 Date 25

### RAINFALL
(Inches)

Total 13.08

Departure from normal +5.80

Greatest in 24 hours 5.43

Date ~~1&2~~ 1 AND 2

### WIND

Average hourly velocity 5.4 mph.

Prevailing direction NE

Maximum for five minutes 22

mph. from the E on the 23

### SUNSHINE

Average number hours per day 3.7

Percentage of possible 30

### NUMBER OF DAYS

Clear 0

Partly Cloudy 5

Cloudy 26

.01 inch of rain or more 24

Thunderstorms 24

Light fog 0

Dense fog 0

Number of hours with rain ~~[illegible]~~

MR 69126—Panama Canal—7-19-55—300

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, Canal Zone **Month:** August 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 82 | 85 | 6 | 56 |
| 2 | 88 | 72 | 80 | 87 | 7 | .21 |
| 3 | 88 | 74 | 81 | 92 | 10 | .09 |
| 4 | 89 | 71 | 80 | 84 | 5 | 0 |
| 5 | 91 | 75 | 83 | 83 | 9 | T |
| 6 | 93 | 75 | 84 | 84 | 9 | .01 |
| 7 | 93 | 73 | 83 | 79 | 3 | 0 |
| 8 | 91 | 75 | 83 | 79 | 9 | T |
| 9 | 90 | 75 | 82 | 87 | 9 | 1.42 |
| 10 | 85 | 75 | 80 | 88 | 10 | .04 |
| 11 | 81 | 72 | 76 | 92 | 10 | 1.01 |
| 12 | 87 | 72 | 80 | 85 | 4 | T |
| 13 | 86 | 72 | 79 | 86 | 8 | .84 |
| 14 | 87 | 74 | 80 | 88 | 9 | 1.02 |
| 15 | 80 | 73 | 76 | 91 | 10 | .37 |
| 16 | 83 | 73 | 78 | 88 | 9 | 0 |
| 17 | 84 | 74 | 79 | 86 | 9 | 0 |
| 18 | 89 | 74 | 82 | 88 | 8 | .11 |
| 19 | 88 | 75 | 82 | 87 | 10 | 1.07 |
| 20 | 88 | 74 | 81 | 82 | 10 | T |
| 21 | 81 | 73 | 77 | 91 | 10 | .21 |
| 22 | 85 | 73 | 79 | 89 | 10 | .04 |
| 23 | 82 | 73 | 78 | 90 | 10 | .01 |
| 24 | 83 | 73 | 78 | 91 | 9 | .14 |
| 25 | 85 | 71 | 78 | 86 | 6 | 0 |
| 26 | 87 | 73 | 80 | 88 | 7 | .79 |
| 27 | 88 | 73 | 80 | 85 | 8 | .07 |
| 28 | 87 | 72 | 80 | 88 | 8 | 3.45 |
| 29 | 85 | 74 | 80 | 89 | 10 | .01 |
| 30 | 82 | 72 | 77 | 89 | 10 | .04 |
| 31 | 86 | 72 | 79 | 84 | 6 | 0 |
| Sum | 2682 | 2271 | - | 258 | 258 | 11.51 |
| Mean | 86.5 | 73.3 | 79.9 | 86.7 | 8.33 | - |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 19 47 | 5.83 | 19 52 | 5.06 |
| 19 48 | 4.12 | 19 53 | 6.73 |
| 19 49 | 8.09 | 19 54 | 8.49 |
| 19 50 | 8.34 | 19 55 | 11.30 |
| 19 51 | 2.90 | 19 56 | 11.51 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.847
Departure from normal +.016
Highest 29.96 Date 15
Lowest 29.69 Date 6

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.9
Departure from normal - 0.4
Highest 93 Date 7
Lowest 71 Date 25

**RAINFALL**
**(Inches)**

Total 11.51
Departure from normal + 3.81
Greatest in 24 hours 3.46
Date 28

**WIND**

Average hourly velocity 5.0 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the NE on the 28

**SUNSHINE**

Average number hours per day 5.1
Percentage of possible 41

**NUMBER OF DAYS**

Clear 1
Partly Cloudy 7
Cloudy 23
.01 inch of rain or more 21
Thunderstorms 19
Light fog 0
Dense fog 0

Number of hours with rain 65

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** [redacted] **Month:** [redacted]

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 2 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 3 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 4 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 5 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 6 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 7 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 8 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 9 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 10 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 11 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 12 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 13 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 14 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 15 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 16 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 17 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 18 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 19 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 20 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 21 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 22 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 23 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 24 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 25 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 26 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 27 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 28 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 29 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 30 | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| 31 | | | | | | |
| Sum | [redacted] | [redacted] | | | [redacted] | [redacted] |
| Mean | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 19[redacted] | [redacted] | 19[redacted] | [redacted] |
| 19[redacted] | [redacted] | 19[redacted] | [redacted] |
| 19[redacted] | [redacted] | 19[redacted] | [redacted] |
| 19[redacted] | [redacted] | 19[redacted] | [redacted] |
| 19[redacted] | [redacted] | 19[redacted] | [redacted] |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean [redacted]
Departure from normal [redacted]
Highest [redacted] Date [redacted]
Lowest [redacted] Date [redacted]

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean [redacted]
Departure from normal [redacted]
Highest [redacted] Date [redacted]
Lowest [redacted] Date [redacted]

### RAINFALL
(Inches)

Total [redacted]
Departure from normal [redacted]
Greatest in 24 hours [redacted]
Date [redacted]

### WIND

Average hourly velocity [redacted] mph.
Prevailing direction [redacted]
Maximum for five minutes [redacted]
mph. from the [redacted] on the [redacted]

### SUNSHINE

Average number hours per day [redacted]
Percentage of possible [redacted]

### NUMBER OF DAYS

Clear [redacted]
Partly Cloudy [redacted]
Cloudy [redacted]
.01 inch of rain or more [redacted]
Thunderstorms [redacted]
Light fog [redacted]
Dense fog [redacted]

Number of hours with rain [redacted]

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** October, 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 87 | 73 | 80 | 86 | 8 | .05 |
| 2 | 86 | 73 | 80 | 85 | 8 | 0 |
| 3 | 85 | 72 | 78 | 88 | 10 | 0 |
| 4 | 88 | 71 | 80 | 91 | 10 | .91 |
| 5 | 84 | 71 | 78 | 91 | 10 | 1.69 |
| 6 | 83 | 72 | 78 | 88 | 8 | 0 |
| 7 | 85 | 73 | 79 | 89 | 6 | .14 |
| 8 | 84 | 71 | 78 | 91 | 8 | .25 |
| 9 | 82 | 72 | 77 | 92 | 10 | .36 |
| 10 | 82 | 71 | 76 | 91 | 10 | .13 |
| 11 | 82 | 72 | 77 | 90 | 10 | .12 |
| 12 | 82 | 73 | 78 | 90 | 10 | .02 |
| 13 | 83 | 75 | 79 | 84 | 9 | .02 |
| 14 | 84 | 74 | 79 | 86 | 9 | .02 |
| 15 | 84 | 72 | 78 | 87 | 4 | .05 |
| 16 | 86 | 73 | 80 | 89 | 6 | T |
| 17 | 85 | 72 | 78 | 93 | 8 | .35 |
| 18 | 86 | 71 | 78 | 89 | 9 | T |
| 19 | 78 | 71 | 74 | 95 | 10 | 4.80 |
| 20 | 81 | 71 | 76 | 92 | 8 | .16 |
| 21 | 83 | 72 | 78 | 88 | 6 | .05 |
| 22 | 83 | 72 | 78 | 92 | 6 | .06 |
| 23 | 84 | 72 | 78 | 92 | 8 | 0 |
| 24 | 84 | 73 | 78 | 92 | 10 | 1.39 |
| 25 | 80 | 72 | 76 | 95 | 10 | .80 |
| 26 | 80 | 70 | 75 | 94 | 9 | .33 |
| 27 | 82 | 72 | 75 | 94 | 8 | 1.67 |
| 28 | 82 | 70 | 76 | 86 | 7 | 0 |
| 29 | 82 | 74 | 78 | 81 | 6 | 0 |
| 30 | 82 | 74 | 78 | 84 | 8 | .01 |
| 31 | 82 | 74 | 78 | 88 | 7 | .06 |
| Sum | 2581 | 2238 | - | | 256 | 13.44 |
| Mean | 83.3 | 72.2 | 77.8 | 89.5 | 8.3 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1947 | 9.68 | 1952 | 14.81 |
| 1948 | 13.63 | 1953 | 14.07 |
| 1949 | 11.68 | 1954 | 14.18 |
| 1950 | 7.08 | 1955 | 6.46 |
| 1951 | 13.10 | 1956 | 13.44 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.839

Departure from normal + .013

Highest 29.95 Date 20

Lowest 29.74 Date 31

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 77.8

Departure from normal - 1.4

Highest 88 Date 4

Lowest 70 Date 26

### RAINFALL
(Inches)

Total 13.44

Departure from normal + 2.83

Greatest in 24 hours 4.92

Date 19 - 20

### WIND

Average hourly velocity 5.2 mph.

Prevailing direction NW

Maximum for five minutes 24

mph. from the S on the 14

### SUNSHINE

Average number hours per day 5.2

Percentage of possible 44

### NUMBER OF DAYS

Clear 0

Partly Cloudy 8

Cloudy 23

.01 inch of rain or more 23

Thunderstorms 16

Fog 0

Dust fog 0

Number of hours with rain 102

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MR 9126—Panama Canal—7-19-55—300

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** NOVEMBER, 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 82 | 72 | 77 | 92 | 9 | .17 |
| 2 | 81 | 72 | 76 | 93 | 10 | .56 |
| 3 | 80 | 71 | 76 | 92 | 8 | 0 |
| 4 | 83 | 70 | 76 | 90 | 8 | .20 |
| 5 | 86 | 71 | 78 | 88 | 8 | .02 |
| 6 | 80 | 72 | 76 | 93 | 9 | .71 |
| 7 | 83 | 70 | 76 | 88 | 8 | .01 |
| 8 | 87 | 71 | 79 | 85 | 7 | T |
| 9 | 87 | 74 | 80 | 85 | 8 | 0 |
| 10 | 85 | 73 | 79 | 88 | 7 | .05 |
| 11 | 88 | 73 | 80 | 90 | 9 | .46 |
| 12 | 84 | 74 | 79 | 89 | 9 | 0 |
| 13 | 85 | 74 | 80 | 88 | 10 | .03 |
| 14 | 80 | 74 | 77 | 93 | 10 | .87 |
| 15 | 83 | 72 | 78 | 91 | 10 | .76 |
| 16 | 82 | 72 | 77 | 89 | 9 | .06 |
| 17 | 87 | 71 | 79 | 83 | 4 | 0 |
| 18 | 85 | 73 | 79 | 87 | 9 | .01 |
| 19 | 86 | 74 | 80 | 87 | 10 | 0 |
| 20 | 84 | 74 | 79 | [illegible] | 10 | .02 |
| 21 | 88 | 73 | 80 | 83 | 6 | 0 |
| 22 | 84 | 76 | 80 | 90 | 10 | 1.17 |
| 23 | 77 | 68 | 72 | 93 | 10 | 1.38 |
| 24 | 84 | 69 | 76 | 93 | 10 | 1.89 |
| 25 | 83 | 70 | 76 | 90 | 8 | 1.00 |
| 26 | 79 | 71 | 75 | 92 | 10 | .28 |
| 27 | 79 | 70 | 74 | 91 | 10 | .13 |
| 28 | 83 | 69 | 76 | 90 | 7 | .77 |
| 29 | 81 | 70 | 76 | 90 | 9 | .78 |
| 30 | 83 | 70 | 76 | 89 | 8 | .04 |
| 31 | | | | | | |
| Sum | 2499 | 2253 | | | 260 | 10.17 |
| Mean | 83.3 | 71.8 | 77.6 | 89.3 | 8.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1947 | 10.25 | 1952 | 10.85 |
| 1948 | 12.35 | 1953 | 6.28 |
| 1949 | 10.06 | 1954 | 13.62 |
| 1950 | 10.83 | 1955 | 15.75 |
| 1951 | 8.39 | 1956 | 10.17 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.846

Departure from normal [illegible]

Highest 30.01 Date 27

Lowest 29.67 Date 19

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 77.6

Departure from normal - 1.5

Highest 88 Date 11

Lowest 68 Date 23

### RAINFALL
(Inches)

Total 10.17

Departure from normal - .06

Greatest in 24 hours 2.25

Date 22-23

### WIND

Average hourly velocity 5.3 mph.

Prevailing direction NW

Maximum for five minutes 25

mph. from the NW on the 23

### SUNSHINE

Average number hours per day [illegible]

Percentage of possible 89

### NUMBER OF DAYS

Clear 0

Partly Cloudy 5

Cloudy 25

.01 inch of rain or more 23

Thunderstorms 15

Light fog 0

Dense fog 0

Number of hours with rain 78

MR 69126—Panama Canal—7-19-55—300

4066-12

# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** DECEMBER, 1956

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 83 | 72 | 78 | 86 | 7 | T |
| 2 | 84 | 72 | 78 | 89 | 8 | .06 |
| 3 | 88 | 71 | 80 | 81 | 4 | |
| 4 | 90 | 73 | 82 | 80 | 3 | |
| 5 | 89 | 73 | 81 | 79 | 4 | |
| 6 | 87 | 73 | 80 | 83 | 8 | T |
| 7 | 85 | 74 | 80 | 82 | 10 | |
| 8 | 86 | 73 | 80 | 83 | 9 | |
| 9 | 86 | 73 | 80 | 82 | 10 | |
| 10 | 84 | 72 | 78 | 86 | 8 | .32 |
| 11 | 84 | 71 | 78 | 86 | 7 | .12 |
| 12 | 85 | 72 | 78 | 87 | 9 | .04 |
| 13 | 87 | 73 | 80 | 87 | 9 | .02 |
| 14 | 85 | 72 | 78 | 91 | 7 | .41 |
| 15 | 82 | 73 | 78 | 94 | 10 | .13 |
| 16 | 79 | 72 | 76 | 94 | 10 | .45 |
| 17 | 83 | 72 | 78 | 91 | 8 | .41 |
| 18 | 84 | 73 | 78 | 89 | 9 | .35 |
| 19 | 88 | 72 | 80 | 81 | 5 | |
| 20 | 83 | 72 | 78 | 87 | 7 | .24 |
| 21 | 86 | 71 | 78 | 83 | 4 | .01 |
| 22 | 85 | 71 | 78 | 83 | 4 | .02 |
| 23 | 86 | 72 | 79 | 79 | 2 | |
| 24 | 86 | 71 | 78 | 84 | 3 | |
| 25 | 86 | 72 | 79 | 79 | 4 | |
| 26 | 87 | 70 | 78 | 77 | 5 | |
| 27 | 86 | 71 | 78 | 80 | 5 | .04 |
| 28 | 86 | 71 | 78 | 80 | 5 | |
| 29 | 87 | 69 | 78 | 78 | 3 | |
| 30 | 87 | 70 | 78 | 78 | 6 | |
| 31 | 86 | 71 | 78 | 79 | 8 | |
| Sum | 2650 | 2227 | | | 201 | 2.62 |
| Mean | 85.5 | 71.8 | 78.6 | 83.7 | 6.5 | - |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1947 | 5.58 | 1952 | 13.46 |
| 1948 | 2.33 | 1953 | 5.23 |
| 1949 | 6.93 | 1954 | 3.80 |
| 1950 | 4.60 | 1955 | 9.96 |
| 1951 | 4.07 | 1956 | 2.62 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.830
Departure from normal + .010
Highest 29.97 Date 27
Lowest 29.71 Date 14

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 78.6
Departure from normal - 1.2
Highest 90 Date 4
Lowest 69 Date 29

**RAINFALL**
**(Inches)**

Total 2.62
Departure from normal - 2.40
Greatest in 24 hours .76
Date 17-18

**WIND**

Average hourly velocity 4.8 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the NE on the 10

**SUNSHINE**

Average number hours per day 7.1
Percentage of possible 62

**NUMBER OF DAYS**

Clear 4
Partly Cloudy 14
Cloudy 13
.01 inch of rain or more 14
Thunderstorms 3
Light fog 0
Dense fog 0
Number of hours with rain 26

MR 69-26—Panama Canal—7-19-55—300

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights **Month:** January 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 85 | 71 | 78 | 83 | 8 | .03 |
| 2 | 85 | 72 | 78 | 80 | 10 | 0 |
| 3 | 83 | 70 | 76 | 86 | 7 | .22 |
| 4 | 86 | 70 | 78 | 76 | 6 | 0 |
| 5 | 87 | 72 | 79 | 78 | 7 | T |
| 6 | 87 | 73 | 80 | 75 | 5 | 0 |
| 7 | 87 | 73 | 80 | 76 | 6 | 0 |
| 8 | 86 | 73 | 80 | 82 | 7 | .19 |
| 9 | 87 | 71 | 79 | 75 | 5 | 0 |
| 10 | 90 | 72 | 81 | 76 | 3 | 0 |
| 11 | 86 | 72 | 79 | 73 | 4 | 0 |
| 12 | 87 | 70 | 78 | 78 | 6 | T |
| 13 | 86 | 71 | 78 | 74 | 4 | 0 |
| 14 | 87 | 69 | 78 | 74 | 1 | 0 |
| 15 | 87 | 70 | 78 | 76 | 2 | 0 |
| 16 | 88 | 71 | 80 | 78 | 5 | 0 |
| 17 | 87 | 74 | 80 | 79 | 7 | T |
| 18 | 90 | 72 | 81 | 75 | 2 | 0 |
| 19 | 88 | 71 | 80 | 75 | 4 | 0 |
| 20 | 88 | 71 | 80 | 74 | 2 | 0 |
| 21 | 89 | 72 | 80 | 75 | 2 | 0 |
| 22 | 89 | 71 | 80 | 74 | 1 | 0 |
| 23 | 88 | 71 | 80 | 72 | 1 | 0 |
| 24 | 88 | 71 | 80 | 74 | 3 | T |
| 25 | 88 | 71 | 80 | 75 | 4 | 0 |
| 26 | 88 | 72 | 80 | 74 | 5 | 0 |
| 27 | 89 | 71 | 80 | 74 | 3 | 0 |
| 28 | 89 | 72 | 80 | 75 | 2 | 0 |
| 29 | 88 | 73 | 80 | 75 | 6 | 0 |
| 30 | 90 | 71 | 80 | 72 | 2 | 0 |
| 31 | 89 | 73 | 81 | 73 | 4 | 0 |
| Sum | 2712 | 2215 | | | 134 | .44 |
| Mean | 87.5 | 71.5 | 79.5 | 76.1 | 4.3 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1948 | 1.26 | 1953 | 2.66 |
| 1949 | .15 | 1954 | .61 |
| 1950 | .26 | 1955 | 4.32 |
| 1951 | 1.43 | 1956 | 2.63 |
| 1952 | .41 | 1957 | .44 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.868

Departure from normal +.026

Highest 30.00 Date 24

Lowest 29.76 Date 15

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.5

Departure from normal -0.3

Highest 90 Date 30

Lowest 69 Date 14

### RAINFALL
(Inches)

Total .44

Departure from normal -.67

Greatest in 24 hours .22

Date 3

### WIND

Average hourly velocity 7.9 mph.

Prevailing direction NW

Maximum for five minutes 21

mph. from the N on the 24

### SUNSHINE

Average number hours per day 7.9

Percentage of possible 68

### NUMBER OF DAYS

Clear 12

Partly Cloudy 17

Cloudy 2

.01 inch of rain or more 3

Thunderstorms 0

Light fog 0

Dense fog 0

Number of hours with rain 4

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

Rec'd. O/C

APR 29 1957

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights **Month:** February 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 89 | 72 | 80 | 74 | 6 | 0 |
| 2 | 90 | 70 | 80 | 72 | 2 | 0 |
| 3 | 88 | 72 | 80 | 72 | 6 | T |
| 4 | 87 | 74 | 80 | 71 | 6 | 0 |
| 5 | 89 | 72 | 80 | 72 | 3 | 0 |
| 6 | 89 | 71 | 80 | 72 | 3 | 0 |
| 7 | 89 | 70 | 80 | 74 | 2 | 0 |
| 8 | 90 | 70 | 80 | 70 | 2 | 0 |
| 9 | 90 | 70 | 80 | 73 | 2 | 0 |
| 10 | 88 | 74 | 81 | 72 | 2 | 0 |
| 11 | 89 | 75 | 82 | 70 | 5 | 0 |
| 12 | 84 | 74 | 79 | 76 | 7 | T |
| 13 | 88 | 73 | 80 | 74 | 7 | T |
| 14 | 87 | 74 | 80 | 71 | 10 | T |
| 15 | 85 | 75 | 80 | 73 | 8 | 0 |
| 16 | 90 | 74 | 82 | 72 | 2 | 0 |
| 17 | 90 | 74 | 82 | 74 | 1 | 0 |
| 18 | 89 | 71 | 80 | 71 | 7 | 0 |
| 19 | 90 | 72 | 81 | 74 | 7 | 0 |
| 20 | 90 | 71 | 80 | 73 | 7 | 0 |
| 21 | 91 | 71 | 81 | 73 | 5 | 0 |
| 22 | 92 | 73 | 82 | 71 | 3 | 0 |
| 23 | 91 | 72 | 82 | 68 | 1 | 0 |
| 24 | 90 | 70 | 80 | 69 | 6 | 0 |
| 25 | 86 | 68 | 77 | 74 | 5 | 0 |
| 26 | 87 | 69 | 78 | 74 | 2 | 0 |
| 27 | 84 | 72 | 78 | 78 | 5 | 0 |
| 28 | 89 | 73 | 81 | 74 | 7 | 0 |
| 29 | | | | | | |
| 30 | | | | | | |
| 31 | | | | | | |
| Sum | 2482 | 2224 | | | | T |
| Mean | 88.6 | 72.9 | 80.2 | 72.6 | 4.6 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1948 | .02 | 1953 | 2.49 |
| 1949 | T | 1954 | .86 |
| 1950 | .36 | 1955 | 2.43 |
| 1951 | 2.59 | 1956 | 1.22 |
| 1952 | .11 | 1957 | T |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.826

Departure from normal -.028

Highest 29.97 Date 23

Lowest 29.72 Date 16

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.2

Departure from normal -0.2

Highest 92 Date 22

Lowest 68 Date 25

### RAINFALL
(Inches)

Total T

Departure from normal -1.31

Greatest in 24 hours T

Date

### WIND

Average hourly velocity 9.8 mph.

Prevailing direction NW

Maximum for five minutes 24

mph. from the NW on the 4

### SUNSHINE

Average number hours per day 8.3

Percentage of possible 70

### NUMBER OF DAYS

Clear 12

Partly Cloudy 14

Cloudy 2

.01 inch of rain or more 0

Thunderstorms 0

Light fog 0

Dense fog 0

Number of hours with rain 0

MR 69126—Panama Canal—7-19-55—300

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** March 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 91 | 73 | 82 | 71 | 4 | 0 |
| 2 | 92 | 72 | 82 | 70 | 4 | 0 |
| 3 | 90 | 70 | 80 | 71 | 3 | 0 |
| 4 | 90 | 70 | 80 | 71 | 2 | 0 |
| 5 | 82 | 70 | 76 | 81 | 3 | 0 |
| 6 | 85 | 70 | 78 | 77 | 6 | 0 |
| 7 | 90 | 72 | 81 | 71 | 9 | 0 |
| 8 | 91 | 71 | 81 | 70 | 3 | 0 |
| 9 | 91 | 72 | 81 | 68 | 1 | 0 |
| 10 | 90 | 71 | 80 | 67 | 1 | 0 |
| 11 | 91 | 72 | 82 | 70 | 6 | 0 |
| 12 | 93 | 70 | 82 | 69 | 3 | 0 |
| 13 | 90 | 72 | 81 | 72 | 5 | 0 |
| 14 | 88 | 72 | 80 | 73 | 8 | 0 |
| 15 | 94 | 73 | 84 | 68 | 7 | 0 |
| 16 | 93 | 71 | 82 | 67 | 3 | 0 |
| 17 | 91 | 72 | 82 | 69 | 4 | 0 |
| 18 | 92 | 69 | 80 | 66 | 2 | 0 |
| 19 | 93 | 70 | 82 | 69 | 2 | 0 |
| 20 | 94 | 72 | 83 | 65 | 1 | 0 |
| 21 | 92 | 73 | 82 | 66 | 4 | 0 |
| 22 | 83 | 71 | 77 | 80 | 1 | 0 |
| 23 | 81 | 74 | 78 | 88 | 9 | 0 |
| 24 | 82 | 75 | 78 | 86 | 5 | 0 |
| 25 | 88 | 74 | 81 | 77 | 4 | T |
| 26 | 93 | 72 | 83 | 69 | 6 | 0 |
| 27 | 93 | 77 | 85 | 67 | 6 | 0 |
| 28 | 92 | 75 | 84 | 67 | 6 | 0 |
| 29 | 92 | 75 | 84 | 69 | 7 | 0 |
| 30 | 91 | 73 | 82 | 70 | 7 | 0 |
| 31 | 92 | 73 | 84 | 72 | 5 | 0 |
| Sum | 2790 | 2261 | - | - | 137 | T |
| Mean | 90.0 | 72.3 | 82.2 | 71.6 | 4.4 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1948 | T | 1953 | 1.53 |
| 1949 | .16 | 1954 | .20 |
| 1950 | 1.89 | 1955 | .98 |
| 1951 | .34 | 1956 | .40 |
| 1952 | .11 | 1957 | T |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.861

Departure from normal -.039

Highest 29.98 Date 2

Lowest 29.74 Date 12

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.2

Departure from normal -0.3

Highest 94 Date 15

Lowest 69 Date 18

### RAINFALL
(Inches)

Total T

Departure from normal -.67

Greatest in 24 hours T

Date 25

### WIND

Average hourly velocity 7.3 mph.

Prevailing direction NE

Maximum for five minutes 23

mph. from the NE on the 26

### SUNSHINE

Average number hours per day 9.8

Percentage of possible 82

### NUMBER OF DAYS

Clear 12

Partly Cloudy 16

Cloudy 3

.01 inch of rain or more 0

Thunderstorms 0

Light fog 0

Dense fog 0

Number of hours with rain O/C 0

R&R 69126—Panama Canal—7-19-55—300

MAY 1 - 1957

4066-12

# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** Balboa Heights, C.Z. **Month:** April 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 93 | 72 | 82 | 69 | 3 | 0 |
| 2 | 93 | 73 | 83 | 68 | 5 | 0 |
| 3 | 91 | 73 | 82 | 69 | 8 | 0 |
| 4 | 93 | 72 | 82 | 70 | 4 | 0 |
| 5 | 95 | 72 | 84 | 70 | 1 | 0 |
| 6 | 94 | 73 | 84 | 65 | 1 | 0 |
| 7 | 94 | 73 | 84 | 65 | 5 | 0 |
| 8 | 94 | 73 | 84 | 69 | 3 | 0 |
| 9 | 93 | 75 | 84 | 68 | 3 | 0 |
| 10 | 94 | 76 | 85 | 64 | 5 | 0 |
| 11 | 96 | 73 | 84 | 68 | 4 | 0 |
| 12 | 92 | 73 | 82 | 71 | 6 | T |
| 13 | 93 | 74 | 84 | 68 | 6 | 0 |
| 14 | 94 | 73 | 84 | 68 | 4 | 0 |
| 15 | 89 | 73 | 81 | 76 | 6 | .44 |
| 16 | 90 | 73 | 82 | 72 | 7 | 0 |
| 17 | 93 | 73 | 83 | 68 | 6 | 0 |
| 18 | 94 | 75 | 84 | 69 | 4 | 0 |
| 19 | 94 | 74 | 84 | 72 | 6 | 0 |
| 20 | 91 | 74 | 82 | 72 | 5 | 0 |
| 21 | 89 | 74 | 82 | 71 | 6 | 0 |
| 22 | 93 | 71 | 82 | 66 | 7 | 0 |
| 23 | 89 | 73 | 81 | 73 | 7 | T |
| 24 | 96 | 72 | 84 | 67 | 6 | 0 |
| 25 | 90 | 74 | 82 | 75 | 7 | 1.41 |
| 26 | 88 | 73 | 80 | 74 | 8 | T |
| 27 | 92 | 73 | 82 | 70 | 7 | T |
| 28 | 91 | 72 | 82 | 73 | 4 | 0 |
| 29 | 94 | 74 | 84 | 73 | 6 | 0 |
| 30 | 96 | 75 | 86 | 70 | 5 | 0 |
| 31 | | | | | | |
| Sum | 2,778 | 2,198 | | - | 155 | 1.85 |
| Mean | 92.6 | 73.3 | 83.0 | 69.8 | 5.2 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1948 | .11 | 1953 | .07 |
| 1949 | 2.10 | 1954 | 3.33 |
| 1950 | 1.74 | 1955 | .41 |
| 1951 | 4.89 | 1956 | 2.23 |
| 1952 | .58 | 1957 | 1.85 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.834
Departure from normal +.005
Highest 29.95 Date 15
Lowest 29.68 Date 27

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 83.0
Departure from normal +0.9
Highest 96 Date 30
Lowest 71 Date 22

**RAINFALL**
**(Inches)**

Total 1.85
Departure from normal - .77
Greatest in 24 hours 1.41
Date 25

**WIND**

Average hourly velocity 8.4 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the NW on the 28

**SUNSHINE**

Average number hours per day 9.9
Percentage of possible 80

**NUMBER OF DAYS**

Clear 5
Partly Cloudy 23
Cloudy 2
.01 inch of rain or more 2
Thunderstorms 1
Light fog 0
Dense fog 0

Number of hours with rain 6

MR 69126—Panama Canal—7-19-55—300

Rec'd. O/C
MAY 21 1957

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** MAY 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 92 | 76 | 84 | 75 | 7 | T |
| 2 | 93 | 76 | 84 | 72 | 6 | 0 |
| 3 | 96 | 78 | 87 | 71 | 6 | 0 |
| 4 | 94 | 77 | 86 | 74 | 8 | 0 |
| 5 | 94 | 76 | 85 | 76 | 8 | 0 |
| 6 | 96 | 77 | 86 | 72 | 7 | 0 |
| 7 | 96 | 77 | 86 | 70 | 8 | 0 |
| 8 | 94 | 78 | 86 | 71 | 7 | 0 |
| 9 | 93 | 77 | 85 | 69 | 8 | 0 |
| 10 | 96 | 76 | 86 | 71 | 4 | 0 |
| 11 | 88 | 72 | 80 | 85 | 9 | 4.44 |
| 12 | 82 | 71 | 76 | 87 | 8 | .01 |
| 13 | 82 | 75 | 78 | 87 | 9 | .13 |
| 14 | 80 | 74 | 77 | 89 | 10 | .33 |
| 15 | 81 | 74 | 78 | 91 | 9 | 1.10 |
| 16 | 84 | 76 | 80 | 86 | 8 | .02 |
| 17 | 85 | 77 | 81 | 83 | 6 | 0 |
| 18 | 85 | 74 | 78 | 83 | 3 | T |
| 19 | 86 | 76 | 81 | 82 | 3 | 0 |
| 20 | 86 | 74 | 80 | 82 | 6 | 0 |
| 21 | 86 | 75 | 80 | 82 | 6 | 0 |
| 22 | 88 | 75 | 82 | 83 | 5 | 0 |
| 23 | 87 | 75 | 81 | 84 | 7 | 0 |
| 24 | 85 | 75 | 80 | 89 | 9 | .04 |
| 25 | 87 | 75 | 81 | 88 | 9 | .20 |
| 26 | 90 | 74 | 82 | 82 | 9 | 0 |
| 27 | 85 | 73 | 79 | 90 | 10 | .27 |
| 28 | 83 | 72 | 78 | 89 | 8 | .13 |
| 29 | 81 | 73 | 77 | 92 | 10 | .96 |
| 30 | 82 | 73 | 78 | 94 | 10 | 1.03 |
| 31 | 83 | 72 | 78 | 93 | 9 | .52 |
| Sum | 2720 | 2323 | | | 232 | 9.18 |
| Mean | 87.7 | 74.9 | 81.4 | 82.0 | 7.5 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1948 | 5.17 | 1953 | 8.80 |
| 1949 | 8.74 | 1954 | 8.65 |
| 1950 | 9.64 | 1955 | 6.31 |
| 1951 | 8.22 | 1956 | 10.81 |
| 1952 | 15.06 | 1957 | 9.18 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.819
Departure from normal -.005
Highest 29.95 Date 11
Lowest 29.64 Date 3

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.3
Departure from normal 0.5
Highest 96 Date 10
Lowest 71 Date 12

### RAINFALL
(Inches)

Total 9.18
Departure from normal 1.18
Greatest in 24 hours 4.45
Date 11 - 12

### WIND

Average hourly velocity 66 mph
Prevailing direction NW
Maximum for five minutes 23
mph. from the NW on the 6

### SUNSHINE

Average number hours per day 7.4
Percentage of possible 59

### NUMBER OF DAYS

Clear 2
Partly Cloudy 11
Cloudy 18
.01 inch of rain or more 13
Thunderstorms 8
Light fog 0
Dense fog 0

Number of hours with rain 72

MR 75168

AUG 22 1957

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JUNE 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 83 | 72 | 78 | 90 | 8 | 0 |
| 2 | 86 | 74 | 80 | 83 | 4 | 0 |
| 3 | 89 | 75 | 82 | 81 | 6 | 0 |
| 4 | 89 | 75 | 82 | 83 | 9 | .04 |
| 5 | 83 | 75 | 79 | 92 | 10 | .28 |
| 6 | 83 | 73 | 78 | 88 | 10 | 1.70 |
| 7 | 86 | 74 | 80 | 84 | 6 | 0 |
| 8 | 92 | 74 | 83 | 82 | 6 | 0 |
| 9 | 89 | 78 | 84 | 81 | 9 | 0 |
| 10 | 87 | 75 | 81 | 87 | 10 | 1.39 |
| 11 | 88 | 74 | 81 | 89 | 10 | .10 |
| 12 | 90 | 76 | 83 | 85 | 10 | .04 |
| 13 | 89 | 76 | 82 | 84 | 9 | 0 |
| 14 | 88 | 76 | 82 | 82 | 8 | .01 |
| 15 | 86 | 73 | 80 | 91 | 9 | .24 |
| 16 | 85 | 71 | 78 | 85 | 6 | 0 |
| 17 | 92 | 73 | 82 | 83 | 7 | .05 |
| 18 | 90 | 75 | 82 | 86 | 9 | .45 |
| 19 | 87 | 76 | 82 | 85 | 10 | 0 |
| 20 | 89 | 76 | 82 | 87 | 10 | .04 |
| 21 | 91 | 76 | 84 | 82 | 10 | 0 |
| 22 | 91 | 76 | 84 | 81 | 8 | 0 |
| 23 | 91 | 75 | 84 | 82 | 8 | 0 |
| 24 | 88 | 76 | 82 | 87 | 10 | .42 |
| 25 | 84 | 76 | 80 | 87 | 10 | T |
| 26 | 88 | 75 | 81 | 86 | 9 | T |
| 27 | 90 | 75 | 82 | 84 | 8 | 0 |
| 28 | 82 | 71 | 76 | 90 | 10 | .78 |
| 29 | 84 | 73 | 78 | 90 | 9 | .17 |
| 30 | 92 | 74 | 83 | 81 | 9 | 0 |
| 31 | | | | | | |
| Sum | 2632 | 2236 | | --- | 257 | 5.71 |
| Mean | 87.7 | 74.5 | 81.1 | 85.3 | 8.6 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1948 | 6.32 | 1953 | 7.48 |
| 1949 | 7.71 | 1954 | 13.26 |
| 1950 | 11.88 | 1955 | 8.34 |
| 1951 | 3.97 | 1956 | 10.10 |
| 1952 | 6.49 | 1957 | 5.71 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean .813

Departure from normal -.015

Highest 29.93 Date 7

Lowest 29.69 Date 18

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.1

Departure from normal - 1.1

Highest 92 Date 30

Lowest 71 Date 16

### RAINFALL
(Inches)

Total 5.71

Departure from normal - 2.46

Greatest in 24 hours 1.70

Date 6

### WIND

Average hourly velocity 4.8 mph.

Prevailing direction NW

Maximum for five minutes 21

mph. from the S on the 28

### SUNSHINE

Average number hours per day 7.3

Percentage of possible 58

### NUMBER OF DAYS

Clear None

Partly Cloudy 6

Cloudy 24

.01 inch of rain or more 14

Thunderstorms 19

Light fog None

Dense fog None

Number of hours with rain 48

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** July - 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 88 | 76 | 82 | 83 | 10 | T |
| 2 | 86 | 76 | 81 | 83 | 10 | .08 |
| 3 | 90 | 76 | 84 | 84 | 10 | 13 |
| 4 | 92 | 76 | 84 | 79 | 6 | T |
| 5 | 92 | 75 | 84 | 84 | 8 | .09 |
| 6 | 90 | 75 | 82 | 83 | 6 | .08 |
| 7 | 90 | 76 | 83 | 85 | 9 | .59 |
| 8 | 88 | 75 | 82 | 83 | 10 | 0 |
| 9 | 92 | 76 | 84 | 83 | 10 | .05 |
| 10 | 85 | 76 | 80 | 85 | 10 | .01 |
| 11 | 84 | 72 | 78 | 90 | 10 | .28 |
| 12 | 86 | 75 | 80 | 88 | 10 | .08 |
| 13 | 90 | 75 | 82 | 86 | 10 | .05 |
| 14 | 90 | 74 | 82 | 88 | 8 | 0 |
| 15 | 88 | 75 | 82 | 84 | 10 | 0 |
| 16 | 84 | 77 | 80 | 89 | 10 | .13 |
| 17 | 86 | 75 | 80 | 88 | 10 | T |
| 18 | 90 | 75 | 82 | 82 | 8 | T |
| 19 | 91 | 75 | 83 | 86 | 8 | 2.47 |
| 20 | 86 | 73 | 80 | 90 | 10 | 4.36 |
| 21 | 82 | 73 | 78 | 92 | 8 | T |
| 22 | 82 | 73 | 78 | 90 | 10 | 0 |
| 23 | 88 | 72 | 80 | 89 | 6 | .29 |
| 24 | 91 | 74 | 82 | 83 | 5 | 0 |
| 25 | 93 | 75 | 84 | 87 | 9 | .06 |
| 26 | 83 | 74 | 78 | 91 | 10 | .11 |
| 27 | 85 | 73 | 79 | 89 | 8 | .10 |
| 28 | 88 | 72 | 80 | 91 | 10 | .49 |
| 29 | 88 | 73 | 80 | 89 | 9 | .26 |
| 30 | 88 | 74 | 81 | 88 | 10 | 1.00 |
| 31 | 92 | 74 | 83 | 83 | 8 | .02 |
| Sum | 2728 | 2310 | -- | 86.5 | 276 | 10.73 |
| Mean | 88.0 | 74.5 | 81.2 | | 89 | ~~10.73~~ |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1948 | 6.39 | 1953 | 5.30 |
| 1949 | 6.70 | 1954 | 8.25 |
| 1950 | 12.14 | 1955 | 10.06 |
| 1951 | 4.97 | 1956 | 13.08 |
| 1952 | 8.49 | 1957 | 10.73 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.804

Departure from normal -.026

Highest 29.92 Date 22

Lowest 29.69 Date 9

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.2

Departure from normal +0.8

Highest 93 Date 25

Lowest 72 Date 11

### RAINFALL
(Inches)

Total 10.73

Departure from normal +3.24

Greatest in 24 hours 4.38

Date 20

### WIND

Average hourly velocity 5.0 mph.

Prevailing direction NW

Maximum for five minutes 21

mph. from the N on the 9

### SUNSHINE

Average number hours per day 6.6

Percentage of possible 53

### NUMBER OF DAYS

Clear 0

Partly Cloudy 4

Cloudy 27

.01 inch of rain or more 21

Thunderstorms 18

Light fog 0

Dense fog 0

Number of hours with rain 57

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** August 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 90 | 75 | 82 | 81 | 10 | 0 |
| 2 | 84 | 69 | 76 | 84 | 9 | .42 |
| 3 | 81 | 74 | 78 | 93 | 10 | .14 |
| 4 | 87 | 72 | 80 | 87 | 9 | .24 |
| 5 | 88 | 72 | 80 | 88 | 9 | .02 |
| 6 | 91 | 74 | 82 | 87 | 9 | T |
| 7 | 89 | 75 | 82 | 88 | 10 | 0 |
| 8 | 90 | 76 | 83 | 87 | 10 | .42 |
| 9 | 78 | 68 | 73 | 93 | 9 | .97 |
| 10 | 88 | 72 | 80 | 90 | 9 | .18 |
| 11 | 90 | 74 | 82 | 85 | 10 | .03 |
| 12 | 90 | 75 | 82 | 88 | 10 | .66 |
| 13 | 90 | 75 | 82 | 88 | 10 | .03 |
| 14 | 90 | 75 | 82 | 83 | 10 | T |
| 15 | 89 | 76 | 82 | 86 | 10 | .02 |
| 16 | 88 | 76 | 82 | 86 | 10 | .01 |
| 17 | 84 | 70 | 77 | 90 | 9 | 1.55 |
| 18 | 89 | 73 | 81 | 88 | 10 | .36 |
| 19 | 86 | 74 | 80 | 91 | 10 | 2.00 |
| 20 | 88 | 74 | 81 | 86 | 10 | 0 |
| 21 | 86 | 76 | 81 | 87 | 10 | T |
| 22 | 85 | 76 | 80 | 89 | 10 | .01 |
| 23 | 91 | 74 | 82 | 84 | 9 | 0 |
| 24 | 90 | 76 | 83 | 84 | 8 | 0 |
| 25 | 88 | 76 | 82 | 83 | 8 | .01 |
| 26 | 86 | 76 | 81 | 88 | 10 | .01 |
| 27 | 81 | 72 | 76 | 92 | 10 | .09 |
| 28 | 89 | 73 | 81 | 90 | 10 | .28 |
| 29 | 87 | 74 | 80 | 88 | 10 | T |
| 30 | 91 | 70 | 80 | 87 | 10 | 2.53 |
| 31 | 81 | 71 | 76 | 91 | 10 | .08 |
| Sum | 2705 | 2283 | | | 298 | 10.06 |
| Mean | 87.3 | 73.6 | 80.4 | 87.5 | 9.6 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1948 | 4.12 | 1953 | 6.73 |
| 1949 | 8.09 | 1954 | 8.49 |
| 1950 | 8.34 | 1955 | 11.30 |
| 1951 | 2.90 | 1956 | 11.51 |
| 1952 | 5.06 | 1957 | 10.06 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.816
Departure from normal -.014
Highest 29.91 Date 18
Lowest 29.70 Date 15

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.4
Departure from normal +0.1
Highest 91 Date 30
Lowest 68 Date 9

**RAINFALL**
**(Inches)**

Total 10.06
Departure from normal +2.32
Greatest in 24 hours 2.61
Date 30 - 31

**WIND**

Average hourly velocity 5.9 mph.
Prevailing direction NW
Maximum for five minutes 27
mph. from the N on the 19

**SUNSHINE**

Average number hours per day 5.0
Percentage of possible 40

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 0
Cloudy 31
.01 inch of rain or more 22
Thunderstorms 22
Light fog 0
Dense fog 0

Number of hours with rain 53

MR 75168

WEATHER BUREAU

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

LIBRARY

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** SEPTEMBER 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 87 | 71 | 79 | 84 | 8 | 0 |
| 2 | 87 | 73 | 80 | 84 | 8 | T |
| 3 | 84 | 74 | 79 | 87 | 10 | T |
| 4 | 86 | 73 | 80 | 83 | 9 | T |
| 5 | 87 | 74 | 80 | 87 | 10 | T |
| 6 | 83 | 75 | 79 | 90 | 10 | .05 |
| 7 | 92 | 74 | 83 | 83 | 6 | 0 |
| 8 | 91 | 75 | 82 | 81 | 8 | 0 |
| 9 | 88 | 75 | 82 | 84 | 10 | .01 |
| 10 | 81 | 74 | 78 | 93 | 10 | .25 |
| 11 | 87 | 74 | 80 | 87 | 7 | 0 |
| 12 | 88 | 75 | 82 | 84 | 7 | 0 |
| 13 | 86 | 76 | 81 | 86 | 10 | 0 |
| 14 | 90 | 76 | 83 | 89 | 10 | .29 |
| 15 | 87 | 75 | 81 | 87 | 10 | T |
| 16 | 86 | 75 | 80 | 88 | 10 | .03 |
| 17 | 90 | 76 | 83 | 86 | 10 | T |
| 18 | 91 | 73 | 82 | 86 | 10 | .43 |
| 19 | 83 | 72 | 78 | 92 | 10 | .83 |
| 20 | 83 | 71 | 77 | 84 | 8 | 0 |
| 21 | 84 | 73 | 78 | 84 | 7 | 0 |
| 22 | 84 | 73 | 78 | 86 | 6 | .02 |
| 23 | 85 | 73 | 79 | 85 | 8 | 1.10 |
| 24 | 88 | 73 | 80 | 84 | 8 | .69 |
| 25 | 88 | 74 | 81 | 89 | 10 | 1.45 |
| 26 | 77 | 74 | 76 | 93 | 10 | .45 |
| 27 | 84 | 72 | 78 | 84 | 7 | 0 |
| 28 | 88 | 73 | 80 | 84 | 6 | 0 |
| 29 | 85 | 76 | 80 | 85 | 9 | T |
| 30 | 81 | 74 | 78 | 90 | 10 | .06 |
| 31 | | | | | | |
| Sum | 2581 | 2216 | | | 262 | 5.66 |
| Mean | 86.0 | 73.9 | 80.0 | 86.3 | 8.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1948 | 6.56 | 1953 | 7.07 |
| 1949 | 6.06 | 1954 | 8.68 |
| 1950 | 3.79 | 1955 | 8.28 |
| 1951 | 9.79 | 1956 | 5.00 |
| 1952 | 8.60 | 1957 | 5.66 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.818

Departure from normal -.007

Highest 29.94 Date 6

Lowest 29.69 Date 8

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.0

Departure from normal + 0.2

Highest 92 Date 7

Lowest 71 Date 1

### RAINFALL
(Inches)

Total 5.66

Departure from normal -2.17

Greatest in 24 hours 2.14

Date 24 & 25

### WIND

Average hourly velocity 44 mph.

Prevailing direction NW

Maximum for five minutes 18

mph. from the NW on the 17

### SUNSHINE

Average number hours per day 7.2

Percentage of possible 59

### NUMBER OF DAYS

Clear 0

Partly Cloudy 7

Cloudy 23

.01 inch of rain or more 13

Thunderstorms 19

Light fog 0

Dense fog 0

Number of hours with rain 44

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, C.Z. Month: OCTOBER 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 83 | 73 | 78 | 87 | 9 | .11 |
| 2 | 86 | 74 | 80 | 83 | 8 | 0 |
| 3 | 89 | 75 | 82 | 85 | 10 | .07 |
| 4 | 84 | 73 | 78 | 85 | 10 | 0 |
| 5 | 85 | 73 | 79 | 84 | 9 | T |
| 6 | 82 | 72 | 77 | 92 | 10 | 2.00 |
| 7 | 85 | 72 | 78 | 88 | 8 | .21 |
| 8 | 85 | 71 | 78 | 86 | 9 | .12 |
| 9 | 85 | 73 | 79 | 89 | 10 | 1.51 |
| 10 | 83 | 73 | 78 | 89 | 10 | .02 |
| 11 | 88 | 73 | 80 | 88 | 9 | .02 |
| 12 | 85 | 73 | 79 | 89 | 8 | .05 |
| 13 | 86 | 72 | 79 | 87 | 10 | .01 |
| 14 | 86 | 72 | 79 | 86 | 5 | 0 |
| 15 | 86 | 73 | 80 | 87 | 10 | .04 |
| 16 | 84 | 73 | 78 | 92 | 10 | .95 |
| 17 | 82 | 73 | 78 | 90 | 10 | .01 |
| 18 | 83 | 72 | 78 | 87 | 10 | 1.05 |
| 19 | 83 | 73 | 78 | 91 | 10 | .40 |
| 20 | 85 | 72 | 78 | 82 | 6 | .02 |
| 21 | 84 | 74 | 79 | 88 | 10 | .15 |
| 22 | 85 | 74 | 80 | 85 | 10 | 0 |
| 23 | 89 | 72 | 80 | 87 | 10 | .19 |
| 24 | 84 | 70 | 77 | 87 | 10 | 1.65 |
| 25 | 83 | 75 | 79 | 85 | 10 | T |
| 26 | 85 | 73 | 79 | 86 | 9 | 0 |
| 27 | 85 | 74 | 80 | 90 | 9 | .47 |
| 28 | 84 | 73 | 78 | 88 | 10 | .11 |
| 29 | 84 | 73 | 78 | 88 | 8 | .04 |
| 30 | 86 | 72 | 79 | 90 | 9 | .46 |
| 31 | 85 | 71 | 78 | 87 | 8 | .04 |
| Sum | 2629 | 2256 | | | 288 | |
| Mean | 84.8 | 72.8 | 78.8 | 87.6 | 9.3 | 9.70 |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1948 | 13.63 | 1953 | 14.07 |
| 1949 | 11.68 | 1954 | 14.18 |
| 1950 | 7.08 | 1955 | 6.46 |
| 1951 | 13.10 | 1956 | 13.44 |
| 1952 | 14.81 | 1957 | 9.70 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.842

Departure from normal +0.016

Highest 29.96 Date 22

Lowest 29.70 Date 2

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 78.8

Departure from normal -0.4

Highest 89 Date 23

Lowest 70 Date 24

### RAINFALL
(Inches)

Total 9.70

Departure from normal -0.89

Greatest in 24 hours 2.00

Date 6

### WIND

Average hourly velocity 3.8 mph.

Prevailing direction NW

Maximum for five minutes 18

mph. from the SE on the 6

### SUNSHINE

Average number hours per day 4.9

Percentage of possible 41

### NUMBER OF DAYS

Clear 0

Partly Cloudy 1

Cloudy 30

.01 inch of rain or more 24

Thunderstorms 15

Light fog 1

Dense fog 0

Number of hours with rain 76

MR 75168

4066-12

# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** November 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 85 | 72 | 78 | 83 | 4 | 0 |
| 2 | 85 | 72 | 78 | 84 | 5 | 0 |
| 3 | 87 | 74 | 80 | 87 | 7 | .03 |
| 4 | 87 | 73 | 80 | 85 | 4 | .10 |
| 5 | 84 | 74 | 79 | 89 | 10 | .53 |
| 6 | 88 | 73 | 80 | 88 | 10 | .84 |
| 7 | 86 | 74 | 80 | 89 | 10 | .65 |
| 8 | 89 | 73 | 82 | 87 | 10 | .01 |
| 9 | 90 | 73 | 82 | 81 | 9 | 0 |
| 10 | 90 | 76 | 83 | 82 | 6 | 0 |
| 11 | 91 | 73 | 83 | 80 | 5 | 0 |
| 12 | 88 | 76 | 82 | 83 | 10 | .01 |
| 13 | 90 | 73 | 82 | 78 | 7 | 0 |
| 14 | 87 | 73 | 81 | 83 | 9 | .09 |
| 15 | 89 | 74 | 82 | 85 | 9 | .04 |
| 16 | 87 | 76 | 82 | 90 | 8 | .05 |
| 17 | 87 | 73 | 81 | 90 | 8 | .22 |
| 18 | 88 | 74 | 81 | 85 | 8 | .01 |
| 19 | 87 | 73 | 81 | 85 | 10 | 0 |
| 20 | 87 | 73 | 81 | 87 | 10 | .29 |
| 21 | 85 | 73 | 80 | 89 | 10 | .53 |
| 22 | 85 | 73 | 80 | 90 | 9 | 2.32 |
| 23 | 85 | 74 | 80 | 92 | 10 | 1.84 |
| 24 | 81 | 73 | 77 | 92 | 10 | 1.45 |
| 25 | 82 | 72 | 77 | 91 | 10 | .09 |
| 26 | 84 | 73 | 78 | 91 | 10 | .46 |
| 27 | 82 | 73 | 78 | 88 | 10 | T |
| 28 | 88 | 73 | 80 | 87 | 10 | 0 |
| 29 | 85 | 73 | 80 | 86 | 10 | 0 |
| 30 | 86 | 73 | 80 | 89 | 9 | .32 |
| 31 | | | | | | |
| Sum | 2593 | 2226 | | | 257 | 8.68 |
| Mean | 86.4 | 74.2 | 80.3 | 86.6 | 8.6 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1948 | 12.76 | 1953 | 6.28 |
| 1949 | 10.86 | 1954 | 13.62 |
| 1950 | 10.83 | 1955 | 13.73 |
| 1951 | 8.99 | 1956 | 10.17 |
| 1952 | 10.85 | 1957 | 8.68 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.905
Departure from normal - .013
Highest 92 Date 25
Lowest 66 Date 13

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 80.3
Departure from normal - 1.1
Highest 91 Date 11
Lowest 72 Date 2

**RAINFALL**
(Inches)

Total 8.68
Departure from normal - 1.53
Greatest in 24 hours 2.46
Date 20-23

**WIND**

Average hourly velocity 4.4 mph.
Prevailing direction NW
Maximum for five minutes 30
mph. from the NW on the 21

**SUNSHINE**

Average number hours per day 5.4
Percentage of possible 46

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 7
Cloudy 23
.01 inch of rain or more 20
Thunderstorms 13
Light fog 1
Dense fog 0

Number of hours with rain 63

WEATHER BUREAU

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** DECEMBER, 1957

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 88 | 75 | 82 | 87 | 10 | T |
| 2 | 88 | 75 | 82 | 84 | 10 | .14 |
| 3 | 89 | 76 | 82 | 83 | 10 | 0 |
| 4 | 86 | 76 | 81 | 83 | 10 | .02 |
| 5 | 87 | 74 | 80 | 77 | 9 | .01 |
| 6 | 86 | 74 | 80 | 80 | 8 | .04 |
| 7 | 87 | 71 | 79 | 80 | 5 | 0 |
| 8 | 87 | 72 | 80 | 83 | 4 | 0 |
| 9 | 87 | 71 | 79 | 81 | 4 | .02 |
| 10 | 85 | 71 | 78 | 84 | 4 | T |
| 11 | 84 | 71 | 78 | 84 | 6 | 0 |
| 12 | 86 | 71 | 78 | 80 | 6 | .01 |
| 13 | 87 | 72 | 80 | 79 | 7 | .01 |
| 14 | 88 | 73 | 80 | 83 | 6 | .02 |
| 15 | 90 | 74 | 82 | 81 | 8 | 0 |
| 16 | 88 | 76 | 82 | 85 | 8 | .07 |
| 17 | 88 | 75 | 82 | 86 | 8 | T |
| 18 | 86 | 74 | 80 | 85 | 6 | .03 |
| 19 | 89 | 74 | 82 | 80 | 5 | T |
| 20 | 90 | 75 | 82 | 81 | 6 | 0 |
| 21 | 89 | 75 | 82 | 81 | 6 | 0 |
| 22 | 90 | 75 | 82 | 86 | 8 | .24 |
| 23 | 90 | 75 | 82 | 82 | 7 | T |
| 24 | 88 | 75 | 82 | 79 | 6 | T |
| 25 | 89 | 74 | 82 | 78 | 6 | 0 |
| 26 | 90 | 73 | 82 | 78 | 6 | 0 |
| 27 | 90 | 73 | 82 | 76 | 6 | 0 |
| 28 | 90 | 73 | 82 | 77 | 4 | 0 |
| 29 | 90 | 73 | 82 | 78 | 4 | 0 |
| 30 | 90 | 75 | 82 | 76 | 7 | 0 |
| 31 | 90 | 75 | 82 | 77 | 8 | 0 |
| Sum | 2732 | 2286 | 446 | | | .61 |
| Mean | 88.1 | 73.7 | 14.4 | 81.0 | 6.8 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1948 | 2.33 | 1953 | 5.23 |
| 1949 | 6.93 | 1954 | 3.80 |
| 1950 | 4.60 | 1955 | 9.96 |
| 1951 | 4.07 | 1956 | 2.62 |
| 1952 | 13.46 | 1957 | .61 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.834
Departure from normal + .014
Highest 98 Date 6
Lowest 68 Date 29

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.9
Departure from normal + 1.1
Highest 90 Date 30
Lowest 71 Date 11

### RAINFALL
(Inches)

Total .61
Departure from normal -4.34
Greatest in 24 hours .24
Date 22

### WIND

Average hourly velocity 6.7 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the N on the 12

### SUNSHINE

Average number hours per day 6.8
Percentage of possible 64

### NUMBER OF DAYS

Clear 0
Partly Cloudy 21
Cloudy 10
.01 inch of rain or more 11
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 11

LIBRARY JAN 25 1958 WEATHER BUREAU

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JAN 27 1958

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA, C. Z. **Month:** JANUARY, 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 88 | 74 | 81 | 82 | 6 | T |
| 2 | 90 | 74 | 82 | 81 | 5 | 0 |
| 3 | 90 | 76 | 83 | 78 | 7 | T |
| 4 | 86 | 75 | 80 | 82 | 9 | 0 |
| 5 | 89 | 75 | 82 | 83 | 6 | T |
| 6 | 92 | 74 | 83 | 79 | 6 | 0 |
| 7 | 90 | 75 | 82 | 78 | 6 | 0 |
| 8 | 88 | 75 | 82 | 77 | 9 | T |
| 9 | 85 | 76 | 80 | 80 | 10 | T |
| 10 | 89 | 74 | 82 | 78 | 8 | T |
| 11 | 87 | 74 | 80 | 84 | 8 | .05 |
| 12 | 82 | 74 | 78 | 90 | 9 | .35 |
| 13 | 91 | 73 | 82 | 80 | 8 | .11 |
| 14 | 89 | 73 | 81 | 77 | 7 | 0 |
| 15 | 90 | 72 | 81 | 77 | 4 | 0 |
| 16 | 90 | 73 | 82 | 76 | 5 | 0 |
| 17 | 91 | 71 | 81 | 72 | 3 | .05 |
| 18 | 85 | 72 | 78 | 80 | 8 | .02 |
| 19 | 85 | 71 | 78 | 81 | 6 | T |
| 20 | 89 | 72 | 80 | 77 | 6 | 0 |
| 21 | 90 | 73 | 82 | 78 | 9 | 0 |
| 22 | 89 | 75 | 82 | 80 | 9 | 0 |
| 23 | 90 | 75 | 82 | 79 | 7 | 0 |
| 24 | 87 | 74 | 80 | 84 | 3 | 0 |
| 25 | 88 | 74 | 81 | 80 | 7 | 0 |
| 26 | 83 | 73 | 78 | 84 | 9 | .03 |
| 27 | 87 | 73 | 80 | 84 | 9 | .15 |
| 28 | 85 | 74 | 80 | 84 | 10 | T |
| 29 | 85 | 72 | 78 | 82 | 9 | 0 |
| 30 | 86 | 74 | 80 | 82 | 10 | .03 |
| 31 | 89 | 74 | 82 | 74 | 6 | 0 |
| Sum | 2725 | 2284 | | | | |
| Mean | 87.9 | 73.7 | 80.7 | 80.2 | 7.2 | .79 |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | .15 | 1954 | .61 |
| 1950 | .26 | 1955 | 4.32 |
| 1951 | 1.43 | 1956 | 2.63 |
| 1952 | .41 | 1957 | .44 |
| 1953 | 2.66 | 1958 | .79 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.839

Departure from normal - .003

Highest .98 Date 30

Lowest .68 Date 2

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.7

Departure from normal + 0.8

Highest 92 Date 6

Lowest 71 Date 17

### RAINFALL
(Inches)

Total .79

Departure from normal - .31

Greatest in 24 hours .35

Date 12

### WIND

Average hourly velocity 7.5 mph.

Prevailing direction NW

Maximum for five minutes 22

mph. from the NW on the 3

### SUNSHINE

Average number hours per day 7.8

Percentage of possible 67

### NUMBER OF DAYS

Clear 2

Partly Cloudy 14

Cloudy 15

.01 inch of rain or more 8

Thunderstorms 0

Light fog 0

Dense fog 0

Number of hours with rain 11

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, Canal Zone  Month: February 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 90 | 71 | 80 | 72 | 4 | |
| 2 | 90 | 70 | 80 | 69 | 3 | |
| 3 | 90 | 70 | 80 | 77 | 5 | .03 |
| 4 | 87 | 71 | 79 | 77 | 5 | T |
| 5 | 89 | 72 | 80 | 74 | 4 | T |
| 6 | 91 | 72 | 82 | 75 | 3 | |
| 7 | 91 | 74 | 82 | 80 | 4 | |
| 8 | 90 | 75 | 82 | 76 | 3 | |
| 9 | 91 | 74 | 82 | 72 | 1 | |
| 10 | 91 | 72 | 82 | 74 | 4 | |
| 11 | 91 | 73 | 82 | 77 | 6 | |
| 12 | 91 | 73 | 82 | 75 | 8 | |
| 13 | 91 | 75 | 83 | 73 | 6 | |
| 14 | 91 | 75 | 83 | 70 | 7 | |
| 15 | 89 | 75 | 82 | 82 | 8 | |
| 16 | 90 | 75 | 82 | 76 | 8 | |
| 17 | 89 | 75 | 82 | 75 | 7 | |
| 18 | 91 | 76 | 84 | 72 | 8 | |
| 19 | 91 | 73 | 82 | 72 | 5 | |
| 20 | 91 | 77 | 84 | 78 | 8 | .02 |
| 21 | 89 | 76 | 82 | 77 | 8 | |
| 22 | 92 | 77 | 84 | 73 | 6 | |
| 23 | 91 | 75 | 83 | 73 | 9 | T |
| 24 | 90 | 72 | 81 | 75 | 8 | |
| 25 | 93 | 72 | 82 | 71 | 6 | |
| 26 | 89 | 72 | 80 | 80 | 6 | .09 |
| 27 | 82 | 72 | 77 | 84 | 8 | |
| 28 | 90 | 73 | 82 | 75 | 4 | |
| 29 | | | | | | |
| 30 | | | | | | |
| 31 | | | | | | |
| Sum | 2521 | 2057 | | | 162 | .14 |
| Mean | 90.0 | 73.5 | 81.8 | 75.1 | 5.8 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | T | 1954 | .96 |
| 1950 | .16 | 1955 | 2.43 |
| 1951 | 1.39 | 1956 | 1.22 |
| 1952 | .11 | 1957 | T |
| 1953 | 2.49 | 1958 | .14 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.854

Departure from normal 0

Highest 29.98 Date 4

Lowest 29.71 Date 11

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.8

Departure from normal +1.4

Highest 93 Date 25

Lowest 70 Date 2

### RAINFALL
(Inches)

Total .14

Departure from normal -.49

Greatest in 24 hours .09

Date 26

### WIND

Average hourly velocity 8.7 mph.

Prevailing direction NW

Maximum for five minutes 23

mph. from the N on the 13

### SUNSHINE

Average number hours per day 10.2

Percentage of possible 86

### NUMBER OF DAYS

Clear 3

Partly Cloudy 13

Cloudy 12

.01 inch of rain or more 3

Thunderstorms 0

Light fog 0

Dense fog 0

Number of hours with rain 4

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** March 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 91 | 75 | 83 | 74 | 9 | 0 |
| 2 | 90 | 75 | 82 | 75 | 8 | 0 |
| 3 | 92 | 72 | 82 | 72 | 8 | 0 |
| 4 | 92 | 76 | 84 | 76 | 7 | 0 |
| 5 | 90 | 76 | 83 | 78 | 6 | 0 |
| 6 | 91 | 76 | 84 | 74 | 8 | T |
| 7 | 91 | 77 | 84 | 76 | 8 | 0 |
| 8 | 91 | 76 | 84 | 78 | 8 | 0 |
| 9 | 92 | 73 | 82 | 80 | 8 | 0 |
| 10 | 90 | 75 | 82 | 77 | 10 | 0 |
| 11 | 91 | 76 | 84 | 78 | 10 | 0 |
| 12 | 92 | 75 | 84 | 76 | 7 | 0 |
| 13 | 93 | 75 | 84 | 74 | 8 | 0 |
| 14 | 93 | 75 | 84 | 72 | 8 | 0 |
| 15 | 91 | 74 | 82 | 79 | 7 | T |
| 16 | 91 | 74 | 82 | 74 | 9 | 0 |
| 17 | 95 | 75 | 85 | 71 | 8 | 0 |
| 18 | 92 | 76 | 84 | 76 | 6 | 0 |
| 19 | 94 | 76 | 85 | 77 | 10 | 0 |
| 20 | 93 | 76 | 84 | 75 | 9 | 0 |
| 21 | 84 | 75 | 80 | 81 | 10 | T |
| 22 | 92 | 74 | 83 | 72 | 4 | 0 |
| 23 | 94 | 76 | 85 | 74 | 9 | 0 |
| 24 | 94 | 77 | 86 | 76 | 7 | 0 |
| 25 | 95 | 76 | 86 | 74 | 7 | 0 |
| 26 | 88 | 74 | 81 | 82 | 9 | 0 |
| 27 | 88 | 76 | 82 | 81 | 9 | 0 |
| 28 | 94 | 75 | 84 | 74 | 9 | 0 |
| 29 | 92 | 75 | 84 | 76 | 6 | T |
| 30 | 95 | 75 | 85 | 72 | 7 | 0 |
| 31 | 90 | 76 | 83 | 76 | 9 | 0 |
| Sum | 2841 | 2332 | | | 248 | T |
| Mean | 91.6 | 75.2 | 83.4 | 75.8 | 8.0 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | .26 | 1954 | .20 |
| 1950 | 1.89 | 1955 | .58 |
| 1951 | .34 | 1956 | .40 |
| 1952 | .11 | 1957 | T |
| 1953 | 1.53 | 1958 | T |

### AIR PRESSURE
(Inches reduced to sea level)

Monthly mean 29.799

Departure from normal -0.043

Highest 29.90 Date 22

Lowest 29.69 Date 12

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 83.4

Departure from normal +1.9

Highest 95 Date 17

Lowest 72 Date 3

### RAINFALL
(Inches)

Total T

Departure from normal -.66

Greatest in 24 hours 0

Date

### WIND

Average hourly velocity 7.9 mph.

Prevailing direction NW

Maximum for five minutes 22

mph. from the NW on the 13

### SUNSHINE

Average number hours per day 8.8

Percentage of possible 73

### NUMBER OF DAYS

Clear 0

Partly Cloudy 10

Cloudy 21

.01 inch of rain or more 0

Thunderstorms 1

Light fog 0

Dense fog 0

Number of hours with rain 0

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** April 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 95 | 76 | 86 | 75 | 7 | 0 |
| 2 | 96 | 77 | 86 | 71 | 8 | 0 |
| 3 | 93 | 76 | 84 | 72 | 9 | 0 |
| 4 | 89 | 74 | 82 | 76 | 8 | 0 |
| 5 | 91 | 75 | 83 | 78 | 10 | 0 |
| 6 | 95 | 75 | 85 | 71 | 7 | 0 |
| 7 | 96 | 77 | 86 | 72 | 8 | 0 |
| 8 | 94 | 77 | 86 | 74 | 9 | 0 |
| 9 | 93 | 76 | 84 | 80 | 10 | 0 |
| 10 | 95 | 77 | 86 | 80 | 10 | 0 |
| 11 | 92 | 76 | 84 | 75 | 8 | 0 |
| 12 | 97 | 74 | 86 | 70 | 9 | 0 |
| 13 | 95 | 76 | 86 | 66 | 10 | 0 |
| 14 | 96 | 74 | 85 | 68 | 9 | 0 |
| 15 | 95 | 74 | 84 | 72 | 9 | 0 |
| 16 | 98 | 73 | 86 | 68 | 6 | 0 |
| 17 | 95 | 73 | 84 | 64 | 9 | 0 |
| 18 | 95 | 72 | 84 | 68 | 7 | 0 |
| 19 | 97 | 72 | 84 | 64 | 8 | 0 |
| 20 | 93 | 76 | 84 | 78 | 10 | .02 |
| 21 | 94 | 77 | 86 | 78 | 10 | T |
| 22 | 90 | 76 | 83 | 85 | 10 | .65 |
| 23 | 85 | 72 | 78 | 89 | 10 | .02 |
| 24 | 91 | 74 | 82 | 77 | 8 | 0 |
| 25 | 93 | 76 | 84 | 68 | 7 | 0 |
| 26 | 96 | 75 | 86 | 66 | 4 | 0 |
| 27 | 91 | 74 | 82 | 70 | 6 | 0 |
| 28 | 92 | 74 | 83 | 73 | 6 | .34 |
| 29 | 93 | 74 | 84 | 84 | 9 | 1.09 |
| 30 | 89 | 75 | 82 | 84 | 8 | .89 |
| 31 | | | | | | |
| Sum | 2804 | 2247 | | | 249 | 3.01 |
| Mean | 93.5 | 74.9 | 84.2 | 73.8 | 8.3 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | 2.10 | 1954 | 3.33 |
| 1950 | 1.74 | 1955 | .41 |
| 1951 | 4.89 | 1956 | 2.23 |
| 1952 | .98 | 1957 | 1.85 |
| 1953 | .07 | 1958 | 3.01 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.819

Departure from normal -.010

Highest 29.96 Date 17

Lowest 29.65 Date 6

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 84.2

Departure from normal +2.1

Highest 98 Date 16

Lowest 72 Date 18

### RAINFALL
(Inches)

Total 3.01

Departure from normal +.38

Greatest in 24 hours 1.87

Date 29-30

### WIND

Average hourly velocity 8.1 mph.

Prevailing direction NW

Maximum for five minutes 21

mph. from the NW on the 30

### SUNSHINE

Average number hours per day 9.1

Percentage of possible 74

### NUMBER OF DAYS

Clear 0

Partly Cloudy 8

Cloudy 22

.01 inch of rain or more 6

Thunderstorms 6

Light fog 0

Dense fog 0

Number of hours with rain 15

MR 75168

4066-12

# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: May 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 88 | 76 | 82 | 83 | 10 | T |
| 2 | 90 | 74 | 82 | 84 | 8 | .05 |
| 3 | 91 | 75 | 83 | 83 | 6 | .01 |
| 4 | 91 | 75 | 83 | 84 | 6 | .06 |
| 5 | 94 | 76 | 85 | 77 | 6 | T |
| 6 | 88 | 77 | 82 | 88 | 10 | .43 |
| 7 | 82 | 76 | 79 | 92 | 10 | .48 |
| 8 | 86 | 74 | 80 | 86 | 6 | T |
| 9 | 91 | 76 | 84 | 82 | 7 | T |
| 10 | 96 | 77 | 86 | 83 | 7 | .52 |
| 11 | 88 | 77 | 82 | 85 | 10 | T |
| 12 | 87 | 76 | 82 | 87 | 8 | .02 |
| 13 | 93 | 78 | 86 | 82 | 8 | .05 |
| 14 | 92 | 74 | 83 | 86 | 9 | .43 |
| 15 | 86 | 74 | 80 | 92 | 10 | .44 |
| 16 | 90 | 73 | 82 | 88 | 9 | 1.38 |
| 17 | 84 | 74 | 79 | 87 | 10 | 0 |
| 18 | 85 | 75 | 80 | 89 | 10 | .15 |
| 19 | 86 | 75 | 80 | 86 | 9 | T |
| 20 | 88 | 76 | 82 | 83 | 7 | 0 |
| 21 | 86 | 76 | 81 | 85 | 8 | .01 |
| 22 | 82 | 76 | 79 | 91 | 10 | .64 |
| 23 | 88 | 74 | 81 | 86 | 5 | 0 |
| 24 | 88 | 76 | 82 | 83 | 7 | 0 |
| 25 | 88 | 76 | 82 | 87 | 9 | 1.87 |
| 26 | 86 | 76 | 81 | 90 | 10 | .08 |
| 27 | 85 | 74 | 80 | 85 | 8 | 0 |
| 28 | 87 | 75 | 81 | 86 | 10 | 0 |
| 29 | 84 | 75 | 80 | 93 | 10 | 1.26 |
| 30 | 78 | 73 | 76 | 96 | 10 | 1.38 |
| 31 | 79 | 73 | 76 | 96 | 10 | 1.21 |
| Sum | 2707 | 2332 | | | 263 | 10.47 |
| Mean | 87.3 | 75.2 | 81.2 | 86.6 | 8.5 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | 874 | 1954 | 865 |
| 1950 | 964 | 1955 | 631 |
| 1951 | 822 | 1956 | 1081 |
| 1952 | 1506 | 1957 | 918 |
| 1953 | 880 | 1958 | 1047 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.798
Departure from normal -0.02
Highest 93 Date 31
Lowest 66 Date 24

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.2
Departure from normal +0.3
Highest 96 Date 10
Lowest 73 Date 16

### RAINFALL
(Inches)

Total 10.47
Departure from normal +2.43
Greatest in 24 hours 1.95
Date 25-26

### WIND

Average hourly velocity 4.4 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the NW on the 10

### SUNSHINE

Average number hours per day 6.0
Percentage of possible 48

### NUMBER OF DAYS

Clear 0
Partly Cloudy 9
Cloudy 22
.01 inch of rain or more 19
Thunderstorms 21
Light fog 0
Dense fog 0
Days with rain 25

LIBRARY JUN 24 1958 WEATHER BUREAU

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

LIBRARY JUL 28 1958 WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: June 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 84 | 76 | 80 | 92 | 7 | 1.06 |
| 2 | 86 | 74 | 80 | 87 | 8 | .49 |
| 3 | 87 | 76 | 82 | 86 | 9 | 0 |
| 4 | 87 | 76 | 82 | 92 | 10 | .11 |
| 5 | 90 | 76 | 83 | 92 | 10 | .25 |
| 6 | 85 | 77 | 80 | 92 | 10 | .02 |
| 7 | 91 | 75 | 83 | 87 | 7 | .20 |
| 8 | 92 | 76 | 84 | 89 | 8 | T |
| 9 | 90 | 78 | 83 | 91 | 10 | .46 |
| 10 | 84 | 75 | 80 | 90 | 10 | T |
| 11 | 83 | 77 | 80 | 88 | 10 | .30 |
| 12 | 86 | 77 | 82 | 84 | 8 | 0 |
| 13 | 84 | 76 | 80 | 91 | 10 | 0 |
| 14 | 88 | 76 | 82 | 89 | 10 | T |
| 15 | 88 | 75 | 81 | 91 | 6 | .01 |
| 16 | 85 | 76 | 80 | 86 | 10 | 0 |
| 17 | 85 | 76 | 80 | 89 | 9 | .04 |
| 18 | 86 | 75 | 81 | 89 | 9 | .12 |
| 19 | 85 | 75 | 80 | 92 | 10 | .03 |
| 20 | 92 | 74 | 83 | 87 | 10 | 2.06 |
| 21 | 86 | 74 | 80 | 83 | 7 | 0 |
| 22 | 86 | 78 | 82 | 83 | 9 | 0 |
| 23 | 87 | 76 | 82 | 86 | 8 | 0 |
| 24 | 86 | 75 | 80 | 88 | 8 | T |
| 25 | 92 | 74 | 83 | 86 | 6 | T |
| 26 | 92 | 77 | 85 | 83 | 10 | 0 |
| 27 | 91 | 77 | 84 | 87 | 10 | T |
| 28 | 91 | 78 | 84 | 87 | 4 | .02 |
| 29 | 88 | 78 | 83 | 94 | 9 | .31 |
| 30 | 87 | 77 | 82 | 91 | 9 | .02 |
| 31 | | | | | | |
| Sum | 2624 | 2280 | 2451 | 2652 | 261 | 5.50 |
| Mean | 87.5 | 76.0 | 81.7 | 88.4 | 8.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | 7.71 | 1954 | 13.26 |
| 1950 | 11.88 | 1955 | 8.34 |
| 1951 | 3.97 | 1956 | 10.10 |
| 1952 | 6.49 | 1957 | 5.71 |
| 1953 | 7.48 | 1958 | 5.50 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.812

Departure from normal -.016

Highest 94 Date 17

Lowest 69 Date 29

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.8

Departure from normal +1.6

Highest 92 Date 8

Lowest 74 Date 25

### RAINFALL
(Inches)

Total 5.50

Departure from normal -2.63

Greatest in 24 hours 2.06

Date 20

### WIND

Average hourly velocity 3.7 mph.

Prevailing direction NW

Maximum for five minutes 19

mph. from the S on the 9

### SUNSHINE

Average number hours per day 5.5

Percentage of possible 44

### NUMBER OF DAYS

Clear 0

Partly Cloudy 6

Cloudy 24

.01 inch of rain or more 16

Thunderstorms 14

Light fog 0

Dense fog 0

Number of hours with rain 52

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

LIBRARY AUG 27 1958 WEATHER BUREAU

Station: Balboa Heights, Canal Zone  Month: July, 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 82 | 76 | 79 | 87 | 10 | T |
| 2 | 86 | 76 | 81 | 91 | 10 | T |
| 3 | 86 | 76 | 81 | 92 | 10 | .07 |
| 4 | 86 | 78 | 82 | 91 | 10 | .01 |
| 5 | 92 | 76 | 84 | 90 | 10 | .38 |
| 6 | 87 | 75 | 81 | 91 | 10 | .07 |
| 7 | 86 | 75 | 81 | 90 | 10 | .05 |
| 8 | 88 | 76 | 82 | 91 | 10 | .70 |
| 9 | 90 | 74 | 81 | 92 | 10 | 0 |
| 10 | 90 | 78 | 84 | 88 | 10 | T |
| 11 | 90 | 76 | 83 | 88 | 10 | 0 |
| 12 | 86 | 75 | 81 | 88 | 10 | T |
| 13 | 92 | 75 | 83 | 93 | 8 | .38 |
| 14 | 93 | 76 | 84 | 91 | 9 | .23 |
| 15 | 88 | 75 | 81 | 96 | 10 | .37 |
| 16 | 89 | 76 | 82 | 92 | 10 | .21 |
| 17 | 88 | 74 | 83 | 93 | 9 | .31 |
| 18 | 87 | 75 | 81 | 97 | 10 | 1.50 |
| 19 | 85 | 73 | 79 | 92 | 10 | 0 |
| 20 | 88 | 75 | 81 | 90 | 10 | T |
| 21 | 87 | 74 | 80 | 91 | 10 | .02 |
| 22 | 82 | 74 | 78 | 94 | 10 | .10 |
| 23 | 86 | 74 | 80 | 89 | 10 | .03 |
| 24 | 85 | 74 | 80 | 89 | 10 | .49 |
| 25 | 88 | 73 | 81 | 94 | 10 | .91 |
| 26 | 85 | 75 | 80 | 89 | 9 | T |
| 27 | 88 | 75 | 81 | 90 | 10 | 0 |
| 28 | 90 | 74 | 82 | 92 | 10 | .17 |
| 29 | 82 | 74 | 78 | 96 | 10 | .14 |
| 30 | 81 | 73 | 77 | 96 | 10 | .17 |
| 31 | 86 | 72 | 79 | 87 | 8 | 0 |
| Sum | 2699 | 2322 | 2510 | 2830 | 303 | 6.31 |
| Mean | 87.1 | 74.9 | 81.0 | 91.3 | 3.0 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | 6.70 | 1954 | 8.25 |
| 1950 | 12.14 | 1955 | 10.06 |
| 1951 | 4.97 | 1956 | 13.08 |
| 1952 | 8.49 | 1957 | 10.73 |
| 1953 | 5.30 | 1958 | 6.31 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.811

Departure from normal -.019

Highest 29.92 Date 24

Lowest 29.69 Date 5

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.0

Departure from normal +0.6

Highest 93 Date 14

Lowest 72 Date 31

### RAINFALL
(Inches)

Total 6.31

Departure from normal -1.17

Greatest in 24 hours 1.50

Date 18

### WIND

Average hourly velocity 5.1 mph.

Prevailing direction NW

Maximum for five minutes 19

mph. from the NW on the 10

### SUNSHINE

Average number hours per day 3.0

Percentage of possible 24

### NUMBER OF DAYS

Clear 0

Partly Cloudy 0

Cloudy 31

.01 inch of rain or more 20

Thunderstorms 15

Light fog 0

Dense fog 0

Number of hours with rain 56

MR 75168

Rec'd. O/C AUG 20 1958

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: August, 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 84 | 74 | 79 | 92 | 10 | T |
| 2 | 89 | 74 | 82 | 90 | 9 | .38 |
| 3 | 85 | 75 | 80 | 91 | 10 | .06 |
| 4 | 89 | 75 | 82 | 90 | 10 | .36 |
| 5 | 81 | 74 | 78 | 93 | 10 | .17 |
| 6 | 82 | 73 | 77 | 91 | 10 | .02 |
| 7 | 85 | 72 | 78 | 89 | 9 | T |
| 8 | 85 | 73 | 79 | 93 | 10 | .10 |
| 9 | 82 | 73 | 77 | 95 | 10 | .75 |
| 10 | 85 | 70 | 77 | 88 | 6 | T |
| 11 | 80 | 73 | 77 | 94 | 10 | .20 |
| 12 | 90 | 72 | 81 | 84 | 8 | 0 |
| 13 | 90 | 74 | 82 | 86 | 10 | .28 |
| 14 | 87 | 74 | 80 | 90 | 10 | .80 |
| 15 | 86 | 72 | 79 | 91 | 10 | .05 |
| 16 | 86 | 74 | 80 | 91 | 9 | 1.27 |
| 17 | 85 | 74 | 80 | 93 | 9 | .28 |
| 18 | 86 | 73 | 79 | 92 | 10 | .12 |
| 19 | 90 | 74 | 82 | 87 | 9 | T |
| 20 | 94 | 76 | 85 | 82 | 8 | 0 |
| 21 | 86 | 77 | 81 | 85 | 10 | 0 |
| 22 | 83 | 75 | 79 | 93 | 10 | 1.94 |
| 23 | 89 | 71 | 80 | 87 | 8 | T |
| 24 | 88 | 75 | 81 | 87 | 10 | 0 |
| 25 | 90 | 75 | 83 | 87 | 10 | .02 |
| 26 | 87 | 75 | 81 | 90 | 10 | .27 |
| 27 | 88 | 76 | 82 | 94 | 10 | .29 |
| 28 | 88 | 74 | 81 | 90 | 10 | 1.34 |
| 29 | 80 | 75 | 78 | 96 | 10 | .95 |
| 30 | 87 | 71 | 79 | 86 | 8 | 0 |
| 31 | 93 | 74 | 84 | 83 | 8 | 0 |
| Sum | 2680 | 2287 | | | 291 | 9.65 |
| Mean | 86.5 | 73.8 | 80.2 | 89.7 | 9.3 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | 8.09 | 1954 | 8.49 |
| 1950 | 8.34 | 1955 | 11.30 |
| 1951 | 2.90 | 1956 | 11.51 |
| 1952 | 5.06 | 1957 | 10.06 |
| 1953 | 6.73 | 1958 | 9.65 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.826

Departure from normal - .004

Highest .96 Date 11

Lowest .70 Date 20

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.2

Departure from normal -0.1

Highest 93 Date 31

Lowest 70 Date 10

### RAINFALL
(Inches)

Total 9.65

Departure from normal +1.88

Greatest in 24 hours 1.94

Date 22

### WIND

Average hourly velocity 4.9 mph.

Prevailing direction NW

Maximum for five minutes 19

mph. from the NW on the 31

### SUNSHINE

Average number hours per day 2.8

Percentage of possible 22

### NUMBER OF DAYS

Clear 0

Partly Cloudy 1

Cloudy 30

.01 inch of rain or more 20

Thunderstorms 0

Light fog 0

Dense fog

Number of hours with rain 66

MR 75168

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

LIBRARY
OCT 21 1958
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: September 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| | 86 | 76 | 81 | 88 | 10 | T |
| 1 | 92 | 75 | 84 | 92 | 10 | 2.46 |
| 2 | 88 | 75 | 82 | 89 | 9 | T |
| 3 | 88 | 75 | 82 | 86 | 9 | T |
| 4 | 89 | 74 | 82 | 90 | 9 | .10 |
| 5 | 81 | 73 | 77 | 94 | 10 | .93 |
| 6 | 89 | 71 | 80 | 83 | 5 | T |
| 7 | 92 | 74 | 83 | 87 | 8 | T |
| 8 | 90 | 77 | 84 | 89 | 10 | .28 |
| 9 | 88 | 75 | 82 | 87 | 9 | T |
| 10 | 87 | 76 | 82 | 87 | 9 | .17 |
| 11 | 87 | 72 | 80 | 94 | 10 | 4.97 |
| 12 | 84 | 72 | 78 | 91 | 10 | 0 |
| 13 | 86 | 72 | 79 | 86 | 10 | 0 |
| 14 | 88 | 73 | 80 | 84 | 6 | 0 |
| 15 | 89 | 74 | 82 | 84 | 6 | 0 |
| 16 | 87 | 76 | 82 | 89 | 10 | .03 |
| 17 | 94 | 76 | 85 | 83 | 8 | 0 |
| 18 | 89 | 74 | 82 | 92 | 10 | .33 |
| 19 | 78 | 73 | 76 | 99 | 10 | 1.70 |
| 20 | 82 | 72 | 77 | 96 | 10 | 1.63 |
| 21 | 84 | 71 | 78 | 88 | 9 | 0 |
| 22 | 88 | 73 | 80 | 86 | 9 | T |
| 23 | 90 | 74 | 82 | 86 | 7 | 0 |
| 24 | 87 | 75 | 81 | 88 | 10 | T |
| 25 | 79 | 73 | 76 | 96 | 10 | .50 |
| 26 | 85 | 72 | 78 | 88 | 8 | .13 |
| 27 | 85 | 74 | 80 | 89 | 8 | T |
| 28 | 89 | 73 | 81 | 87 | 8 | T |
| 29 | 90 | 74 | 82 | 91 | 8 | .51 |
| 30 | | | | | | |
| 31 | | | | | | |
| Sum | 2611 | 2214 | | | 265 | 13.74 |
| Mean | 87.0 | 73.8 | 80.4 | 89.1 | 8.8 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | 6.06 | 1954 | 8.68 |
| 1950 | 3.79 | 1955 | 8.28 |
| 1951 | 9.79 | 1956 | 5.00 |
| 1952 | 8.60 | 1957 | 5.66 |
| 1953 | 7.07 | 1958 | 13.74 |
| 19 | | 19 | |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.807
Departure from normal - .017
Highest .93 Date 12
Lowest .68 Date 5

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.4
Departure from normal +0.6
Highest 94 Date 18
Lowest 71 Date 22

### RAINFALL
(Inches)

Total 13.74
Departure from normal +5.81
Greatest in 24 hours 5.10
Date 11-12

### WIND

Average hourly velocity 3.9 mph.
Prevailing direction NW
Maximum for five minutes 20 mph. from the NW on the 19

### SUNSHINE

Average number hours per day 4.0
Percentage of possible 33

### NUMBER OF DAYS

Clear 0
Partly Cloudy 4
Cloudy 26
.01 inch of rain or more 13
Thunderstorms 15
Light fog 1
Dense fog 0

Number of hours with rain 56

81459—5-58—300

4066-12

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, Canal Zone  Month: October, 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Mean Relative Humidity (Percent) | Daytime Cloudiness (Tenths) | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|
| 1 | 90 | 75 | 82 | 91 | 9 | 1.50 |
| 2 | 86 | 73 | 80 | 89 | 8 | T |
| 3 | 83 | 74 | 78 | 92 | 9 | 0 |
| 4 | 85 | 72 | 78 | 87 | 7 | 0 |
| 5 | 86 | 72 | 79 | 85 | 4 | .17 |
| 6 | 88 | 76 | 82 | 89 | 8 | .14 |
| 7 | 86 | 74 | 80 | 88 | 8 | .16 |
| 8 | 88 | 75 | 82 | 88 | 6 | T |
| 9 | 85 | 72 | 78 | 89 | 7 | .40 |
| 10 | 85 | 73 | 79 | 87 | 6 | .01 |
| 11 | 87 | 72 | 80 | 89 | 9 | .96 |
| 12 | 87 | 72 | 80 | 86 | 9 | 0 |
| 13 | 88 | 73 | 80 | 87 | 8 | 0 |
| 14 | 87 | 73 | 80 | 91 | 10 | 1.23 |
| 15 | 86 | 73 | 80 | 93 | 9 | .19 |
| 16 | 85 | 72 | 78 | 90 | 8 | .77 |
| 17 | 88 | 75 | 82 | 86 | 8 | .12 |
| 18 | 87 | 73 | 80 | 88 | 5 | 0 |
| 19 | 90 | 72 | 81 | 88 | 8 | 3.04 |
| 20 | 80 | 72 | 76 | 92 | 10 | .04 |
| 21 | 86 | 74 | 80 | 86 | 5 | 0 |
| 22 | 91 | 73 | 82 | 84 | 6 | 0 |
| 23 | 88 | 74 | 81 | 92 | 9 | .17 |
| 24 | 88 | 75 | 82 | 93 | 9 | .96 |
| 25 | 84 | 74 | 79 | 90 | 9 | T |
| 26 | 85 | 73 | 79 | 93 | 8 | .06 |
| 27 | 91 | 75 | 83 | 86 | 8 | T |
| 28 | 86 | 75 | 80 | 88 | 9 | 0 |
| 29 | 90 | 76 | 83 | 91 | 9 | .03 |
| 30 | 89 | 75 | 82 | 89 | 8 | T |
| 31 | 87 | 75 | 81 | 92 | 9 | .01 |
| Sum | 2692 | 2282 | - | - | 245 | 9.96 |
| Mean | 86.8 | 73.6 | 80.2 | 88.8 | 7.8 | - |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | 11.68 | 1954 | 14.18 |
| 1950 | 7.08 | 1955 | 6.46 |
| 1951 | 13.10 | 1956 | 13.44 |
| 1952 | 14.81 | 1957 | 9.70 |
| 1953 | 14.07 | 1958 | 9.96 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.815

Departure from normal -.011

Highest .93 Date 7

Lowest .69 Date 22

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.2

Departure from normal -1.0

Highest 91 Date 27

Lowest 72 Date 20

### RAINFALL
(Inches)

Total 9.96

Departure from normal -.62

Greatest in 24 hours 3.08

Date 19-20

### WIND

Average hourly velocity 3.6 mph.

Prevailing direction NW

Maximum for five minutes 23

mph. from the SW on the 19

### SUNSHINE

Average number hours per day 5.0

Percentage of possible 43

### NUMBER OF DAYS

Clear 0

Partly Cloudy 5

Cloudy 26

.01 inch of rain or more 18

Thunderstorms 16

Light fog 0

Dense fog 0

Number of hours with rain 56

Rec'd. O/C

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: November 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 74 | 80 | 100 | 77 | 93 | 1.04 |
| 2 | 87 | 75 | 81 | 98 | 71 | 89 | T |
| 3 | 89 | 75 | 82 | 99 | 66 | 92 | .70 |
| 4 | 88 | 74 | 81 | 99 | 70 | 92 | .90 |
| 5 | 86 | 74 | 80 | 99 | 73 | 92 | .02 |
| 6 | 84 | 73 | 78 | 99 | 72 | 93 | .68 |
| 7 | 85 | 72 | 78 | 99 | 72 | 90 | .01 |
| 8 | 83 | 72 | 78 | 99 | 70 | 94 | .42 |
| 9 | 86 | 71 | 78 | 98 | 68 | 87 | .03 |
| 10 | 89 | 74 | 82 | 98 | 64 | 91 | .16 |
| 11 | 85 | 74 | 80 | 98 | 68 | 91 | .05 |
| 12 | 81 | 73 | 77 | 99 | 90 | 97 | .90 |
| 13 | 88 | 71 | 79 | 99 | 64 | 89 | 2.13 |
| 14 | 90 | 72 | 81 | 99 | 62 | 90 | .24 |
| 15 | 84 | 74 | 79 | 98 | 64 | 88 | T |
| 16 | 86 | 72 | 79 | 98 | 68 | 90 | 0 |
| 17 | 88 | 73 | 80 | 98 | 62 | 90 | .72 |
| 18 | 83 | 73 | 78 | 98 | 78 | 93 | .10 |
| 19 | 87 | 71 | 79 | 98 | 66 | 91 | .77 |
| 20 | 88 | 74 | 81 | 98 | 67 | 89 | 1.35 |
| 21 | 89 | 73 | 81 | 98 | 66 | 91 | .36 |
| 22 | 91 | 74 | 82 | 98 | 64 | 85 | 0 |
| 23 | 88 | 74 | 81 | 98 | 64 | 92 | .54 |
| 24 | 88 | 76 | 82 | 98 | 70 | 90 | .32 |
| 25 | 90 | 74 | 82 | 98 | 63 | 91 | .89 |
| 26 | 87 | 74 | 80 | 99 | 72 | 90 | T |
| 27 | 89 | 74 | 82 | 98 | 65 | 91 | .32 |
| 28 | 93 | 74 | 84 | 98 | 55 | 82 | T |
| 29 | 89 | 74 | 82 | 96 | 63 | 84 | T |
| 30 | 91 | 73 | 82 | 97 | 61 | 84 | 0 |
| 31 | | | | | | | |
| Sum | 2619 | 2201 | | 2949 | 2035 | | 12.65 |
| Mean | 87.3 | 73.4 | 80.4 | 98.3 | 67.8 | 90.0 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | 10.06 | 1954 | 13.62 |
| 1950 | 10.83 | 1955 | 15.75 |
| 1951 | 8.59 | 1956 | 10.17 |
| 1952 | 10.85 | 1957 | 8.64 |
| 1953 | 6.28 | 1958 | 12.65 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.808
Departure from normal -.011
Highest .96 Date 8
Lowest .66 Date 22

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.4
Departure from normal +1.2
Highest 93 Date 28
Lowest 71 Date 13

### RAINFALL
(Inches)

Total 12.65
Departure from normal +2.40
Greatest in 24 hours 2.17
Date 13 & 14

### WIND

Average hourly velocity 4.1 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the SW on the 17

### SUNSHINE

Average number hours per day 3.5
Percentage of possible 30

### NUMBER OF DAYS

Clear 0
Partly Cloudy 9
Cloudy 21
.01 inch of rain or more 22
Thunderstorms 12
Light fog 0
Dense fog 0

Number of hours with rain 75

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, C.Z. Month: December, 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 83 | 76 | 78 | 96 | 76 | 90 | .48 |
| 2 | 85 | 73 | 77 | 98 | 72 | 91 | .11 |
| 3 | 86 | 73 | 80 | 98 | 71 | 89 | .05 |
| 4 | 86 | 73 | 78 | 96 | 66 | 87 | 0 |
| 5 | 90 | 72 | 81 | 95 | 58 | 80 | 0 |
| 6 | 86 | 74 | 80 | 95 | 70 | 87 | .10 |
| 7 | 88 | 74 | 81 | 95 | 64 | 84 | 0 |
| 8 | 89 | 73 | 80 | 96 | 63 | 87 | .14 |
| 9 | 90 | 72 | 81 | 96 | 61 | 81 | 0 |
| 10 | 91 | 71 | 81 | 96 | 57 | 79 | 0 |
| 11 | 90 | 73 | 82 | 95 | 61 | 82 | T |
| 12 | 87 | 73 | 80 | 95 | 68 | 86 | .14 |
| 13 | 89 | 73 | 81 | 96 | 60 | 86 | .46 |
| 14 | 91 | 73 | 82 | 95 | 58 | 77 | 0 |
| 15 | 88 | 74 | 81 | 96 | 64 | 82 | 0 |
| 16 | 88 | 73 | 80 | 96 | 62 | 84 | 0 |
| 17 | 89 | 74 | 82 | 95 | 66 | 84 | 0 |
| 18 | 90 | 73 | 82 | 95 | 60 | 80 | T |
| 19 | 87 | 73 | 80 | 95 | 67 | 87 | .06 |
| 20 | 89 | 73 | 81 | 96 | 65 | 86 | T |
| 21 | 88 | 73 | 80 | 95 | 58 | 78 | 0 |
| 22 | 88 | 71 | 80 | 95 | 51 | 75 | 0 |
| 23 | 91 | 73 | 82 | 96 | 56 | 76 | 0 |
| 24 | 91 | 74 | 81 | 96 | 57 | 80 | 0 |
| 25 | 92 | 74 | 83 | 93 | 56 | 78 | 0 |
| 26 | 89 | 73 | 81 | 95 | 66 | 86 | .07 |
| 27 | 89 | 73 | 81 | 96 | 60 | 84 | 0 |
| 28 | 86 | 74 | 80 | 96 | 60 | 87 | .11 |
| 29 | 92 | 71 | 82 | 96 | 56 | 76 | 0 |
| 30 | 88 | 72 | 80 | 96 | 58 | 84 | .08 |
| 31 | 88 | 71 | 80 | 96 | 53 | 82 | .13 |
| Sum | 2702 | 2262 | | 2967 | 1908 | | |
| Mean | 87.5 | 72.9 | 80.4 | 95.7 | 61.4 | 83.1 | 2.75 |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1949 | 4.93 | 1954 | 3.08 |
| 1950 | 4.40 | 1955 | 3.76 |
| 1951 | 4.07 | 1956 | 2.12 |
| 1952 | 23.44 | 1957 | .41 |
| 1953 | 5.28 | 1958 | 2.75 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.827

Departure from normal + .007

Highest .93 Date 6

Lowest .72 Date 31

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.7

Departure from normal + 0.9

Highest 92 Date 29

Lowest 71 Date 31

### RAINFALL
(Inches)

Total 2.75

Departure from normal -2.16

Greatest in 24 hours .86

Date 19

### WIND

Average hourly velocity 5.2 mph.

Prevailing direction NW

Maximum for five minutes 21

mph. from the NW on the 11

### SUNSHINE

Average number hours per day 6.0

Percentage of possible 52

### NUMBER OF DAYS

Clear 0

Partly Cloudy 11

Cloudy 20

.01 inch of rain or more 12

Thunderstorms 6

Light fog 0

Dense fog 0

Number of hours with rain 28

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JANUARY 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 71 | 82 | 96 | 49 | 77 | 0 |
| 2 | 89 | 70 | 80 | 96 | 56 | 80 | T |
| 3 | 89 | 70 | 80 | 96 | 51 | 75 | 0 |
| 4 | 89 | 69 | 79 | 95 | 54 | 78 | 0 |
| 5 | 91 | 71 | 81 | 94 | 48 | 74 | 0 |
| 6 | 90 | 73 | 82 | 92 | 51 | 72 | T |
| 7 | 90 | 71 | 80 | 86 | 50 | 72 | 0 |
| 8 | 91 | 69 | 80 | 93 | 51 | 75 | 0 |
| 9 | 94 | 69 | 82 | 95 | 50 | 76 | 0 |
| 10 | 91 | 71 | 81 | 95 | 50 | 73 | 0 |
| 11 | 92 | 71 | 82 | 95 | 51 | 74 | T |
| 12 | 90 | 73 | 82 | 93 | 53 | 76 | 0 |
| 13 | 92 | 74 | 83 | 93 | 51 | 75 | 0 |
| 14 | 90 | 73 | 82 | 93 | 53 | 76 | T |
| 15 | 92 | 72 | 82 | 95 | 52 | 77 | 0 |
| 16 | 93 | 72 | 82 | 95 | 48 | 75 | 0 |
| 17 | 91 | 73 | 82 | 90 | 54 | 76 | T |
| 18 | 92 | 74 | 83 | 91 | 50 | 72 | 0 |
| 19 | 92 | 73 | 82 | 88 | 50 | 73 | T |
| 20 | 94 | 72 | 83 | 90 | 42 | 70 | 0 |
| 21 | 94 | 72 | 83 | 91 | 51 | 76 | 0 |
| 22 | 93 | 73 | 83 | 94 | 51 | 83 | .18 |
| 23 | 94 | 72 | 83 | 93 | 49 | 75 | 0 |
| 24 | 93 | 71 | 82 | 92 | 48 | 74 | 0 |
| 25 | 88 | 72 | 80 | 91 | 58 | 79 | .03 |
| 26 | 87 | 69 | 78 | 95 | 59 | 87 | .84 |
| 27 | 90 | 71 | 80 | 96 | 56 | 82 | T |
| 28 | 91 | 72 | 82 | 92 | 56 | 74 | 0 |
| 29 | 91 | 74 | 82 | 87 | 53 | 72 | 0 |
| 30 | 91 | 74 | 82 | 85 | 52 | 72 | 0 |
| 31 | 93 | 72 | 82 | 90 | 51 | 72 | 0 |
| Sum | 2829 | 2223 | | 2867 | 1598 | | 1.05 |
| Mean | 91.3 | 71.7 | 82.5 | 92.5 | 51.5 | 75.5 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1950 | .26 | 1955 | 4.32 |
| 1951 | 1.43 | 1956 | 2.63 |
| 1952 | .41 | 1957 | .44 |
| 1953 | 2.66 | 1958 | .79 |
| 1954 | .61 | 1959 | 1.05 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.845
Departure from normal +.003
Highest 29.99 Date 24
Lowest 29.71 Date 15

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.5
Departure from normal +1.6
Highest 94 Date 23
Lowest 69 Date 9

### RAINFALL
(Inches)

Total 1.05
Departure from normal -.05
Greatest in 24 hours .87
Date 25 & 26

### WIND

Average hourly velocity 8.3 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the N on the 11

### SUNSHINE

Average number hours per day 10.0
Percentage of possible 86

### NUMBER OF DAYS

Clear 11
Partly Cloudy 14
Cloudy 6
.01 inch of rain or more 3
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 4

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** FEBRUARY 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 73 | 82 | 88 | 51 | 73 | 0 |
| 2 | 91 | 73 | 82 | 88 | 48 | 69 | 0 |
| 3 | 92 | 72 | 82 | 92 | 45 | 71 | 0 |
| 4 | 92 | 70 | 81 | 88 | 50 | 72 | 0 |
| 5 | 92 | 71 | 82 | 92 | 50 | 74 | 0 |
| 6 | 92 | 73 | 82 | 91 | 54 | 72 | 0 |
| 7 | 90 | 75 | 82 | 86 | 54 | 72 | 0 |
| 8 | 90 | 73 | 82 | 92 | 53 | 73 | 0 |
| 9 | 91 | 71 | 81 | 89 | 48 | 70 | 0 |
| 10 | 91 | 74 | 82 | 86 | 49 | 70 | 0 |
| 11 | 90 | 75 | 82 | 82 | 50 | 70 | 0 |
| 12 | 89 | 75 | 82 | 84 | 55 | 74 | 0 |
| 13 | 90 | 73 | 82 | 92 | 53 | 73 | 0 |
| 14 | 90 | 73 | 82 | 87 | 50 | 71 | 0 |
| 15 | 91 | 74 | 82 | 88 | 50 | 71 | 0 |
| 16 | 91 | 71 | 81 | 92 | 49 | 71 | 0 |
| 17 | 92 | 73 | 82 | 90 | 49 | 71 | 0 |
| 18 | 89 | 70 | 80 | 93 | 53 | 74 | 0 |
| 19 | 88 | 70 | 79 | 93 | 52 | 75 | 0 |
| 20 | 92 | 69 | 80 | 93 | 45 | 70 | 0 |
| 21 | 93 | 71 | 82 | 90 | 48 | 69 | 0 |
| 22 | 94 | 72 | 83 | 88 | 46 | 70 | 0 |
| 23 | 92 | 73 | 82 | 91 | 48 | 72 | 0 |
| 24 | 94 | 73 | 84 | 91 | 46 | 70 | 0 |
| 25 | 92 | 70 | 81 | 93 | 48 | 72 | 0 |
| 26 | 94 | 73 | 84 | 92 | 49 | 73 | 0 |
| 27 | 91 | 73 | 82 | 92 | 50 | 72 | 0 |
| 28 | 94 | 74 | 84 | 87 | 48 | 71 | 0 |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Sum | 2558 | 2027 | | 2510 | 1391 | | 0 |
| Mean | 91.4 | 72.4 | 81.9 | 89.6 | 49.7 | 71.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1950 | .16 | 1955 | 2.43 |
| 1951 | 1.59 | 1956 | 1.22 |
| 1952 | .11 | 1957 | T |
| 1953 | 2.49 | 1958 | .14 |
| 1954 | .86 | 1959 | 0 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.872
Departure from normal + .018
Highest 98 Date 21
Lowest 73 Date 4

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.9
Departure from normal +1.5
Highest 94 Date 22
Lowest 69 Date 20

### RAINFALL
(Inches)

Total 0
Departure from normal -.62
Greatest in 24 hours -
Date -

### WIND

Average hourly velocity 9.8 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the N on the 7th.

### SUNSHINE

Average number hours per day 8.6
Percentage of possible 72

### NUMBER OF DAYS

Clear 6
Partly Cloudy 21
Cloudy 1
.01 inch of rain or more 0
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 0

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** MARCH 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 74 | 84 | 93 | 51 | 76 | 0 |
| 2 | 94 | 74 | 84 | 92 | 46 | 69 | 0 |
| 3 | 95 | 72 | 84 | 89 | 45 | 69 | 0 |
| 4 | 92 | 74 | 83 | 84 | 50 | 71 | 0 |
| 5 | 95 | 74 | 84 | 90 | 47 | 71 | 0 |
| 6 | 93 | 73 | 83 | 93 | 53 | 74 | 0 |
| 7 | 92 | 75 | 84 | 91 | 51 | 72 | 0 |
| 8 | 94 | 75 | 84 | 84 | 47 | 68 | 0 |
| 9 | 93 | 75 | 84 | 84 | 47 | 68 | 0 |
| 10 | 94 | 72 | 83 | 90 | 45 | 68 | 0 |
| 11 | 93 | 73 | 83 | 89 | 47 | 71 | 0 |
| 12 | 95 | 75 | 85 | 87 | 48 | 71 | 0 |
| 13 | 94 | 74 | 84 | 91 | 50 | 70 | 0 |
| 14 | 89 | 75 | 82 | 86 | 55 | 69 | 0 |
| 15 | 92 | 73 | 82 | 91 | 50 | 72 | 0 |
| 16 | 93 | 74 | 84 | 94 | 48 | 70 | 0 |
| 17 | 94 | 72 | 83 | 84 | 46 | 67 | 0 |
| 18 | 95 | 73 | 84 | 86 | 43 | 65 | 0 |
| 19 | 95 | 72 | 84 | 82 | 39 | 63 | 0 |
| 20 | 93 | 71 | 82 | 87 | 46 | 68 | 0 |
| 21 | 94 | 72 | 83 | 87 | 43 | 69 | 0 |
| 22 | 90 | 72 | 81 | 89 | 52 | 74 | 0 |
| 23 | 91 | 77 | 84 | 84 | 50 | 70 | 0 |
| 24 | 91 | 74 | 82 | 86 | 49 | 68 | 0 |
| 25 | 92 | 73 | 82 | 88 | 46 | 70 | 0 |
| 26 | 93 | 76 | 84 | 89 | 47 | 71 | T |
| 27 | 97 | 75 | 86 | 90 | 41 | 68 | 0 |
| 28 | 92 | 74 | 83 | 91 | 46 | 70 | 0 |
| 29 | 90 | 75 | 82 | 88 | 48 | 69 | 0 |
| 30 | 95 | 75 | 85 | 88 | 45 | 68 | 0 |
| 31 | 92 | 75 | 84 | 85 | 51 | 70 | T |
| Sum | 2885 | 2288 | | 2732 | 1472 | | T |
| Mean | 93.1 | 73.8 | 83.4 | 88.1 | 47.5 | 69.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1950 | 1.89 | 1955 | .58 |
| 1951 | .34 | 1956 | .60 |
| 1952 | .11 | 1957 | T |
| 1953 | 1.53 | 1958 | T |
| 1954 | .20 | 1959 | T |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.850
Departure from normal +.008
Highest 99 Date 19
Lowest 72 Date 5

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 83.4
Departure from normal +1.8
Highest 97 Date 27
Lowest 71 Date 20

### RAINFALL
(Inches)

Total T
Departure from normal -.65
Greatest in 24 hours -
Date -

### WIND

Average hourly velocity 9.9 mph.
Prevailing direction N
Maximum for five minutes 23
mph. from the N on the 4

### SUNSHINE

Average number hours per day 10.8
Percentage of possible 89

### NUMBER OF DAYS

Clear 5
Partly Cloudy 21
Cloudy 5
.01 inch of rain or more 0
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 0

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** APRIL 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 94 | 74 | 84 | 89 | 45 | 71 | 0 |
| 2 | 92 | 74 | 83 | 90 | 47 | 71 | 0 |
| 3 | 97 | 73 | 85 | 91 | 40 | 68 | 0 |
| 4 | 96 | 74 | 85 | 89 | 38 | 66 | 0 |
| 5 | 96 | 72 | 84 | 91 | 37 | 64 | 0 |
| 6 | 93 | 75 | 84 | 87 | 45 | 66 | 0 |
| 7 | 95 | 74 | 84 | 89 | 41 | 67 | 0 |
| 8 | 93 | 76 | 84 | 86 | 48 | 69 | 0 |
| 9 | 95 | 77 | 86 | 88 | 48 | 69 | 0 |
| 10 | 97 | 76 | 86 | 90 | 43 | 69 | 0 |
| 11 | 95 | 75 | 85 | 91 | 47 | 70 | 0 |
| 12 | 96 | 76 | 86 | 88 | 47 | 72 | 0 |
| 13 | 92 | 76 | 84 | 91 | 53 | 76 | T |
| 14 | 95 | 77 | 86 | 90 | 47 | 69 | 0 |
| 15 | 92 | 78 | 85 | 86 | 57 | 73 | 0 |
| 16 | 90 | 77 | 84 | 91 | 57 | 75 | 0 |
| 17 | 97 | 78 | 88 | 90 | 46 | 70 | 0 |
| 18 | 95 | 78 | 86 | 89 | 51 | 77 | .21 |
| 19 | 89 | 76 | 82 | 94 | 63 | 88 | .77 |
| 20 | 95 | 75 | 85 | 94 | 49 | 76 | 0 |
| 21 | 96 | 76 | 86 | 90 | 44 | 69 | 0 |
| 22 | 95 | 74 | 84 | 93 | 44 | 72 | 0 |
| 23 | 91 | 74 | 82 | 91 | 51 | 80 | .43 |
| 24 | 91 | 76 | 84 | 93 | 55 | 80 | 0 |
| 25 | 95 | 75 | 85 | 91 | 42 | 70 | 0 |
| 26 | 95 | 76 | 86 | 90 | 42 | 68 | T |
| 27 | 95 | 75 | 85 | 87 | 46 | 71 | T |
| 28 | 93 | 76 | 84 | 90 | 51 | 78 | T |
| 29 | 93 | 76 | 84 | 92 | 53 | 79 | .05 |
| 30 | 90 | 76 | 83 | 93 | 63 | 82 | T |
| 31 | | | | | | | |
| Sum | 2818 | 2265 | | 2704 | 1440 | | 1.46 |
| Mean | 93.9 | 75.5 | 84.7 | 90.1 | 48.0 | 72.4 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1950 | 1.74 | 1955 | .41 |
| 1951 | 4.89 | 1956 | 2.23 |
| 1952 | .58 | 1957 | 1.85 |
| 1953 | .07 | 1958 | 3.01 |
| 1954 | 3.33 | 1959 | 1.46 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.813
Departure from normal -.015
Highest .92 Date 4
Lowest .70 Date 11

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 84.7
Departure from normal +2.5
Highest 97 Date 17
Lowest 72 Date 5

**RAINFALL**
**(Inches)**

Total 1.46
Departure from normal -1.15
Greatest in 24 hours .98
Date 18 - 19

**WIND**

Average hourly velocity 7.5 mph.
Prevailing direction N
Maximum for five minutes 24
mph. from the N on the 6

**SUNSHINE**

Average number hours per day 7.0
Percentage of possible 56

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 16
Cloudy 14
.01 inch of rain or more 4
Thunderstorms 5
Light fog 0
Dense fog 0

Number of hours with rain 7

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** May 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 76 | 82 | 93 | 61 | 88 | 4.29 |
| 2 | 85 | 75 | 80 | 94 | 65 | 84 | .02 |
| 3 | 86 | 74 | 80 | 93 | 63 | 89 | 1.08 |
| 4 | 87 | 72 | 80 | 93 | 58 | 79 | T |
| 5 | 85 | 74 | 80 | 92 | 66 | 86 | .15 |
| 6 | 82 | 73 | 78 | 92 | 68 | 89 | .56 |
| 7 | 85 | 73 | 79 | 93 | 63 | 82 | 0 |
| 8 | 91 | 74 | 82 | 92 | 52 | 78 | .03 |
| 9 | 91 | 74 | 82 | 91 | 56 | 77 | T |
| 10 | 92 | 75 | 84 | 92 | 55 | 84 | .37 |
| 11 | 91 | 75 | 83 | 94 | 63 | 82 | .06 |
| 12 | 94 | 75 | 84 | 92 | 57 | 76 | 0 |
| 13 | 92 | 76 | 84 | 91 | 53 | 83 | .75 |
| 14 | 90 | 76 | 83 | 93 | 60 | 85 | 1.24 |
| 15 | 88 | 75 | 82 | 94 | 63 | 84 | .41 |
| 16 | 91 | 75 | 83 | 92 | 59 | 78 | 0 |
| 17 | 93 | 76 | 84 | 90 | 54 | 76 | T |
| 18 | 92 | 76 | 84 | 90 | 53 | 75 | 0 |
| 19 | 87 | 76 | 82 | 92 | 63 | 85 | .01 |
| 20 | 95 | 76 | 86 | 93 | 51 | 80 | .01 |
| 21 | 89 | 77 | 83 | 92 | 63 | 84 | .02 |
| 22 | 87 | 75 | 81 | 93 | 64 | 83 | T |
| 23 | 88 | 75 | 82 | 93 | 63 | 84 | 0 |
| 24 | 89 | 75 | 82 | 91 | 62 | 81 | 0 |
| 25 | 95 | 75 | 85 | 94 | 54 | 78 | 0 |
| 26 | 92 | 75 | 84 | 92 | 52 | 83 | T |
| 27 | 91 | 75 | 83 | 93 | 63 | 86 | .05 |
| 28 | 89 | 76 | 82 | 93 | 63 | 81 | 0 |
| 29 | 84 | 76 | 80 | 93 | 71 | 87 | 0 |
| 30 | 89 | 75 | 82 | 98 | 60 | 87 | .17 |
| 31 | 88 | 75 | 82 | 94 | 68 | 88 | .01 |
| Sum | 2767 | 2325 | | 2872 | 1866 | | 9.23 |
| Mean | 89.3 | 75.0 | 82.1 | 92.6 | 60.2 | 82.6 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1950 | 9.64 | 1955 | 6.31 |
| 1951 | 8.22 | 1956 | 10.81 |
| 1952 | 15.06 | 1957 | 9.18 |
| 1953 | 8.80 | 1958 | 10.47 |
| 1954 | 8.65 | 1959 | 9.23 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.831
Departure from normal +.007
Highest .94 Date 7th
Lowest .72 Date 11th

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.1
Departure from normal +1.2
Highest 95 Date 25th
Lowest 72 Date 4th

### RAINFALL
(Inches)

Total 9.23
Departure from normal +1.17
Greatest in 24 hours 4.31
Date 1 - 2

### WIND

Average hourly velocity 5.3 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the NE on the 14th

### SUNSHINE

Average number hours per day 4.6
Percentage of possible 37

### NUMBER OF DAYS

Clear 0
Partly Cloudy 9
Cloudy 22
.01 inch of rain or more 17
Thunderstorms 10
Light fog 0
Dense fog 0

Number of hours with rain 40

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** JUNE 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 74 | 81 | 94 | 63 | 83 | 0 |
| 2 | 84 | 75 | 80 | 93 | 73 | 88 | T |
| 3 | 89 | 75 | 82 | 94 | 64 | 85 | 0 |
| 4 | 87 | 76 | 82 | 93 | 69 | 87 | T |
| 5 | 88 | 75 | 82 | 94 | 68 | 87 | .02 |
| 6 | 83 | 73 | 78 | 95 | 74 | 87 | .78 |
| 7 | 81 | 73 | 77 | 94 | 74 | 90 | 1.54 |
| 8 | 85 | 73 | 79 | 94 | 67 | 86 | 0 |
| 9 | 85 | 73 | 79 | 94 | 68 | 85 | 0 |
| 10 | 88 | 75 | 82 | 94 | 63 | 83 | T |
| 11 | 85 | 76 | 80 | 94 | 72 | 87 | T |
| 12 | 92 | 75 | 84 | 94 | 61 | 87 | .28 |
| 13 | 86 | 75 | 80 | 94 | 69 | 89 | .14 |
| 14 | 80 | 74 | 77 | 95 | 84 | 92 | .37 |
| 15 | 85 | 72 | 78 | 95 | 71 | 86 | 0 |
| 16 | 86 | 73 | 80 | 94 | 70 | 87 | 0 |
| 17 | 84 | 73 | 78 | 95 | 71 | 86 | .03 |
| 18 | 87 | 74 | 80 | 96 | 67 | 85 | .11 |
| 19 | 79 | 75 | 77 | 97 | 90 | 95 | .43 |
| 20 | 86 | 73 | 80 | 97 | 71 | 87 | 0 |
| 21 | 82 | 72 | 77 | 97 | 79 | 92 | .15 |
| 22 | 85 | 72 | 78 | 97 | 68 | 86 | 0 |
| 23 | 89 | 73 | 81 | 96 | 71 | 88 | T |
| 24 | 92 | 75 | 84 | 96 | 65 | 88 | .17 |
| 25 | 88 | 74 | 81 | 97 | 64 | 85 | 0 |
| 26 | 90 | 76 | 83 | 97 | 66 | 91 | .34 |
| 27 | 85 | 74 | 80 | 97 | 59 | 85 | .11 |
| 28 | 80 | 74 | 77 | 95 | 74 | 90 | .10 |
| 29 | 84 | 72 | 78 | 97 | 67 | 86 | T |
| 30 | 89 | 73 | 81 | 97 | 66 | 88 | 0 |
| 31 | | | | | | | |
| Sum | 2572 | 2217 | | 2856 | 2088 | | 4.57 |
| Mean | 85.7 | 73.9 | 79.8 | 95.2 | 69.6 | 87.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1950 | 11.88 | 1955 | 8.34 |
| 1951 | 3.97 | 1956 | 10.10 |
| 1952 | 6.49 | 1957 | 5.71 |
| 1953 | 7.48 | 1958 | 5.50 |
| 1954 | 13.26 | 1959 | 4.57 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.833
Departure from normal +.005
Highest .93 Date 19
Lowest .71 Date 24

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.8
Departure from normal -0.4
Highest 92 Date 12
Lowest 72 Date 22

**RAINFALL**
**(Inches)**

Total 4.57
Departure from normal -3.50
Greatest in 24 hours 1.54
Date 7

**WIND**

Average hourly velocity 3.7 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the S on the 16th

**SUNSHINE**

Average number hours per day 5.0
Percentage of possible 48

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 5
Cloudy 25
.01 inch of rain or more 14
Thunderstorms 9
Light fog 0
Dense fog 0

Number of hours with rain 48

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JULY 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 80 | 97 | 73 | 86 | 0 |
| 2 | 92 | 75 | 84 | 97 | 63 | 84 | 0 |
| 3 | 93 | 76 | 84 | 97 | 57 | 83 | 0 |
| 4 | 89 | 76 | 82 | 95 | 64 | 87 | T |
| 5 | 93 | 75 | 84 | 97 | 57 | 79 | 0 |
| 6 | 94 | 75 | 84 | 94 | 49 | 75 | 0 |
| 7 | 90 | 76 | 83 | 94 | 62 | 83 | .14 |
| 8 | 81 | 72 | 76 | 98 | 76 | 92 | 1.08 |
| 9 | 87 | 73 | 80 | 97 | 67 | 86 | 0 |
| 10 | 89 | 76 | 82 | 95 | 62 | 80 | T |
| 11 | 87 | 75 | 81 | 96 | 68 | 90 | .89 |
| 12 | 87 | 75 | 81 | 97 | 67 | 90 | .04 |
| 13 | 87 | 75 | 81 | 97 | 74 | 92 | .13 |
| 14 | 87 | 74 | 80 | 98 | 67 | 93 | .46 |
| 15 | 90 | 74 | 82 | 98 | 55 | 83 | 0 |
| 16 | 88 | 75 | 82 | 96 | 68 | 86 | T |
| 17 | 92 | 75 | 84 | 97 | 61 | 88 | .30 |
| 18 | 88 | 74 | 81 | 97 | 61 | 90 | 1.09 |
| 19 | 87 | 76 | 82 | 96 | 72 | 87 | 0 |
| 20 | 89 | 75 | 82 | 96 | 70 | 88 | .25 |
| 21 | 91 | 76 | 84 | 96 | 62 | 83 | 0 |
| 22 | 87 | 76 | 82 | 98 | 70 | 93 | .06 |
| 23 | 86 | 74 | 80 | 98 | 75 | 92 | .12 |
| 24 | 91 | 75 | 83 | 97 | 62 | 85 | T |
| 25 | 85 | 76 | 80 | 97 | 75 | 91 | T |
| 26 | 86 | 75 | 80 | 98 | 74 | 88 | .01 |
| 27 | 81 | 75 | 78 | 97 | 87 | 93 | .23 |
| 28 | 86 | 72 | 79 | 98 | 66 | 85 | .18 |
| 29 | 84 | 73 | 78 | 98 | 74 | 88 | .35 |
| 30 | 88 | 74 | 81 | 96 | 68 | 88 | .25 |
| 31 | 89 | 73 | 81 | 96 | 67 | 85 | .01 |
| Sum | 2730 | 2316 | | 2998 | 2073 | | 5.59 |
| Mean | 88.1 | 74.7 | 81.4 | 96.7 | 66.9 | 86.8 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1950 | 12.14 | 1955 | 10.06 |
| 1951 | 4.97 | 1956 | 13.08 |
| 1952 | 8.49 | 1957 | 10.73 |
| 1953 | 5.30 | 1958 | 6.31 |
| 1954 | 8.25 | 1959 | 5.59 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.831
Departure from normal: +.001
Highest: 29.94 Date: 8
Lowest: 29.74 Date: 20

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 81.4
Departure from normal: +1.0
Highest: 94 Date: 6
Lowest: 72 Date: 28

### RAINFALL
(Inches)

Total: 5.59
Departure from normal: -1.86
Greatest in 24 hours: 1.22
Date: 7-8

### WIND

Average hourly velocity: 5.6 mph.
Prevailing direction: NW
Maximum for five minutes: 27
mph. from the N on the 18

### SUNSHINE

Average number hours per day: 6.9
Percentage of possible: 55

### NUMBER OF DAYS

Clear: 0
Partly Cloudy: 5
Cloudy: 26
.01 inch of rain or more: 17
Thunderstorms: 16
Light fog: 0
Dense fog: 0

Number of hours with rain: 39

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** AUGUST 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 83 | 73 | 78 | 97 | 77 | 92 | 1.08 |
| 2 | 87 | 74 | 80 | 96 | 72 | 86 | .08 |
| 3 | 90 | 75 | 82 | 95 | 64 | 87 | T |
| 4 | 78 | 69 | 74 | 99 | 76 | 93 | 2.84 |
| 5 | 83 | 71 | 77 | 96 | 68 | 86 | .01 |
| 6 | 83 | 72 | 78 | 96 | 74 | 90 | .51 |
| 7 | 89 | 72 | 80 | 96 | 64 | 81 | T |
| 8 | 92 | 74 | 83 | 93 | 62 | 84 | .10 |
| 9 | 91 | 75 | 83 | 95 | 62 | 82 | 0 |
| 10 | 90 | 74 | 82 | 95 | 64 | 81 | 0 |
| 11 | 87 | 71 | 79 | 97 | 71 | 88 | .43 |
| 12 | 84 | 74 | 79 | 96 | 73 | 89 | .05 |
| 13 | 84 | 72 | 78 | 95 | 71 | 88 | T |
| 14 | 86 | 72 | 79 | 96 | 72 | 86 | 0 |
| 15 | 90 | 75 | 82 | 96 | 64 | 83 | T |
| 16 | 88 | 75 | 82 | 93 | 63 | 83 | 0 |
| 17 | 88 | 75 | 82 | 95 | 66 | 86 | .01 |
| 18 | 89 | 75 | 82 | 95 | 64 | 83 | .02 |
| 19 | 88 | 76 | 82 | 93 | 69 | 85 | T |
| 20 | 91 | 74 | 82 | 95 | 61 | 88 | .24 |
| 21 | 88 | 74 | 81 | 95 | 61 | 83 | 0 |
| 22 | 88 | 74 | 81 | 95 | 63 | 83 | 0 |
| 23 | 92 | 74 | 83 | 96 | 60 | 86 | .03 |
| 24 | 88 | 75 | 82 | 95 | 71 | 86 | 0 |
| 25 | 86 | 76 | 81 | 95 | 70 | 86 | .01 |
| 26 | 81 | 75 | 78 | 95 | 73 | 88 | T |
| 27 | 91 | 74 | 82 | 95 | 63 | 87 | .24 |
| 28 | 82 | 74 | 78 | 96 | 75 | 89 | .16 |
| 29 | 87 | 74 | 80 | 95 | 67 | 89 | .19 |
| 30 | 87 | 74 | 80 | 95 | 68 | 90 | 1.18 |
| 31 | 90 | 75 | 82 | 96 | 66 | 86 | .34 |
| Sum | 2701 | 2287 | | 2957 | 2094 | | 7.62 |
| Mean | 87.1 | 73.8 | 80.4 | 95.4 | 67.5 | 86.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | | | |
|---|---|---|---|---|---|
| 19 | 50 | 8.34 | 19 | 55 | 11.30 |
| 19 | 51 | 2.90 | 19 | 56 | 11.51 |
| 19 | 52 | 5.06 | 19 | 57 | 10.06 |
| 19 | 53 | 6.73 | 19 | 58 | 9.65 |
| 19 | 54 | 8.49 | 19 | 59 | 7.62 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.826
Departure from normal -.004
Highest .92 Date 13
Lowest .73 Date 25

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.4
Departure from normal +0.1
Highest 92 Date 23
Lowest 69 Date 4

**RAINFALL**
**(Inches)**

Total 7.62
Departure from normal -.15
Greatest in 24 hours 2.84
Date 4

**WIND**

Average hourly velocity 5.1 mph.
Prevailing direction NW
Maximum for five minutes 27
mph. from the NW on the 27

**SUNSHINE**

Average number hours per day 6.4
Percentage of possible 52

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 9
Cloudy 22
.01 inch of rain or more 18
Thunderstorms 15
Light fog 0
Dense fog 0

Number of hours with rain 52

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** SEPTEMBER 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 71 | 78 | 96 | 68 | 91 | 1.13 |
| 2 | 86 | 70 | 78 | 96 | 66 | 83 | T |
| 3 | 86 | 73 | 80 | 95 | 61 | 79 | T |
| 4 | 89 | 74 | 82 | 93 | 67 | 84 | 0 |
| 5 | 91 | 75 | 83 | 93 | 64 | 82 | T |
| 6 | 90 | 77 | 84 | 92 | 63 | 81 | 0 |
| 7 | 90 | 74 | 82 | 94 | 68 | 86 | .01 |
| 8 | 90 | 73 | 82 | 95 | 68 | 91 | 1.28 |
| 9 | 89 | 73 | 81 | 96 | 61 | 85 | 0 |
| 10 | 81 | 73 | 77 | 97 | 79 | 91 | 1.09 |
| 11 | 87 | 73 | 80 | 96 | 67 | 87 | .08 |
| 12 | 82 | 74 | 78 | 95 | 78 | 90 | T |
| 13 | 85 | 73 | 79 | 96 | 68 | 89 | .05 |
| 14 | 87 | 72 | 80 | 95 | 66 | 86 | .06 |
| 15 | 84 | 73 | 78 | 95 | 71 | 88 | T |
| 16 | 85 | 72 | 78 | 96 | 67 | 88 | .26 |
| 17 | 90 | 71 | 80 | 96 | 65 | 86 | 1.05 |
| 18 | 86 | 74 | 80 | 96 | 74 | 89 | .05 |
| 19 | 88 | 74 | 81 | 95 | 67 | 87 | 0 |
| 20 | 90 | 74 | 82 | 95 | 66 | 83 | 0 |
| 21 | 89 | 76 | 82 | 95 | 67 | 88 | .08 |
| 22 | 80 | 72 | 76 | 96 | 84 | 92 | .23 |
| 23 | 90 | 72 | 81 | 95 | 68 | 85 | .03 |
| 24 | 88 | 73 | 80 | 95 | 64 | 89 | .10 |
| 25 | 87 | 73 | 80 | 96 | 67 | 89 | .09 |
| 26 | 90 | 74 | 82 | 95 | 66 | 85 | .18 |
| 27 | 88 | 75 | 82 | 95 | 71 | 84 | 0 |
| 28 | 89 | 76 | 82 | 94 | 78 | 89 | .02 |
| 29 | 87 | 75 | 81 | 95 | 69 | 87 | 0 |
| 30 | 84 | 73 | 78 | 95 | 71 | 90 | T |
| 31 | | | | | | | |
| Sum | 2614 | 2202 | | 2853 | 2059 | | 5.79 |
| Mean | 87.1 | 73.4 | 80.2 | 95.1 | 68.6 | 86.8 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1950 | 3.79 | 1955 | 8.28 |
| 1951 | 9.79 | 1956 | 5.00 |
| 1952 | 8.60 | 1957 | 5.66 |
| 1953 | 7.07 | 1958 | 13.74 |
| 1954 | 8.68 | 1959 | 5.79 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.822
Departure from normal -.002
Highest 29.93 Date 25
Lowest 29.71 Date 21

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.2
Departure from normal +0.4
Highest 91 Date 5
Lowest 70 Date 2

### RAINFALL
(Inches)

Total 5.79
Departure from normal -2.10
Greatest in 24 hours 1.28
Date 8

### WIND

Average hourly velocity 5.0 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the NW on the 21

### SUNSHINE

Average number hours per day 4.1
Percentage of possible 33

### NUMBER OF DAYS

Clear 1
Partly Cloudy 6
Cloudy 23
.01 inch of rain or more 17
Thunderstorms 9
Light fog 0
Dense fog 0

Number of hours with rain 46

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** OCTOBER 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 72 | 78 | 95 | 67 | 88 | .11 |
| 2 | 84 | 71 | 78 | 95 | 71 | 86 | 0 |
| 3 | 89 | 74 | 82 | 95 | 65 | 81 | 0 |
| 4 | 88 | 76 | 82 | 93 | 70 | 86 | 0 |
| 5 | 86 | 75 | 80 | 95 | 71 | 89 | .45 |
| 6 | 81 | 73 | 77 | 95 | 84 | 92 | .41 |
| 7 | 83 | 73 | 78 | 95 | 67 | 90 | .89 |
| 8 | 86 | 74 | 80 | 95 | 71 | 88 | .06 |
| 9 | 86 | 73 | 80 | 95 | 68 | 85 | 0 |
| 10 | 87 | 73 | 80 | 95 | 67 | 83 | 0 |
| 11 | 83 | 75 | 79 | 95 | 77 | 88 | .05 |
| 12 | 80 | 73 | 76 | 95 | 88 | 93 | 1.05 |
| 13 | 82 | 73 | 78 | 95 | 77 | 93 | 3.21 |
| 14 | 85 | 72 | 78 | 96 | 73 | 91 | .74 |
| 15 | 79 | 74 | 76 | 96 | 86 | 90 | .46 |
| 16 | 85 | 75 | 80 | 92 | 72 | 85 | .05 |
| 17 | 86 | 74 | 80 | 94 | 70 | 84 | 0 |
| 18 | 86 | 74 | 80 | 95 | 72 | 87 | 0 |
| 19 | 80 | 75 | 78 | 99 | 88 | 95 | 2.63 |
| 20 | 84 | 74 | 79 | 96 | 74 | 90 | .06 |
| 21 | 86 | 74 | 80 | 95 | 67 | 85 | 0 |
| 22 | 87 | 72 | 80 | 95 | 70 | 88 | .22 |
| 23 | 84 | 75 | 80 | 97 | 77 | 90 | .92 |
| 24 | 86 | 74 | 80 | 96 | 71 | 89 | 3.22 |
| 25 | 83 | 73 | 78 | 96 | 78 | 91 | .10 |
| 26 | 80 | 72 | 76 | 96 | 83 | 92 | .08 |
| 27 | 85 | 73 | 79 | 97 | 74 | 88 | 2.81 |
| 28 | 87 | 72 | 80 | 96 | 70 | 87 | .12 |
| 29 | 90 | 72 | 81 | 96 | 65 | 84 | 0 |
| 30 | 89 | 75 | 82 | 95 | 67 | 89 | .06 |
| 31 | 86 | 75 | 80 | 96 | 75 | 92 | .80 |
| Sum | 2628 | 2280 | | 2956 | 2275 | | 18.50 |
| Mean | 84.8 | 73.5 | 79.2 | 95.4 | 73.4 | 88.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1950 | 7.08 | 1955 | 6.46 |
| 1951 | 13.10 | 1956 | 13.44 |
| 1952 | 14.81 | 1957 | 9.70 |
| 1953 | 14.07 | 1958 | 9.96 |
| 1954 | 14.18 | 1959 | 18.50 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.826
Departure from normal +.070
Highest 29.95 Date 17
Lowest 29.70 Date 8

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.2
Departure from normal -0.0
Highest 90 Date 29
Lowest 71 Date 2

**RAINFALL**
**(Inches)**

Total 18.50
Departure from normal +7.79
Greatest in 24 hours 3.77
Date 13-14

**WIND**

Average hourly velocity 4.0 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the S on the 15

**SUNSHINE**

Average number hours per day 3.7
Percentage of possible 31

**NUMBER OF DAYS**

Clear 1
Partly Cloudy 9
Cloudy 21
.01 inch of rain or more 22
Thunderstorms 15
Light fog 1
Dense fog 0

Number of hours with rain 95

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** NOVEMBER 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 80 | 74 | 77 | 95 | 87 | 93 | .04 |
| 2 | 87 | 73 | 80 | 95 | 69 | 88 | .01 |
| 3 | 89 | 74 | 82 | 96 | 70 | 90 | .04 |
| 4 | 94 | 74 | 84 | 96 | 63 | 86 | .16 |
| 5 | 89 | 73 | 81 | 95 | 71 | 92 | .50 |
| 6 | 87 | 73 | 80 | 96 | 71 | 90 | T |
| 7 | 89 | 75 | 82 | 96 | 65 | 85 | 0 |
| 8 | 85 | 74 | 80 | 95 | 75 | 89 | .22 |
| 9 | 86 | 74 | 80 | 95 | 73 | 88 | 0 |
| 10 | 88 | 74 | 81 | 96 | 66 | 89 | .15 |
| 11 | 85 | 73 | 79 | 96 | 68 | 88 | .65 |
| 12 | 85 | 73 | 79 | 96 | 72 | 92 | .11 |
| 13 | 84 | 72 | 78 | 97 | 74 | 91 | .03 |
| 14 | 90 | 72 | 81 | 96 | 63 | 85 | 0 |
| 15 | 86 | 74 | 80 | 96 | 72 | 93 | 1.09 |
| 16 | 90 | 73 | 82 | 98 | 69 | 90 | 1.01 |
| 17 | 88 | 73 | 80 | 98 | 65 | 87 | .01 |
| 18 | 85 | 72 | 78 | 98 | 66 | 94 | 1.70 |
| 19 | 85 | 72 | 78 | 98 | 67 | 88 | 0 |
| 20 | 83 | 72 | 78 | 96 | 75 | 87 | .01 |
| 21 | 86 | 73 | 80 | 98 | 67 | 88 | .15 |
| 22 | 87 | 73 | 80 | 98 | 67 | 90 | .24 |
| 23 | 88 | 74 | 81 | 98 | 68 | 92 | .79 |
| 24 | 92 | 74 | 83 | 97 | 61 | 86 | .31 |
| 25 | 88 | 74 | 81 | 98 | 65 | 90 | .23 |
| 26 | 88 | 72 | 80 | 99 | 62 | 86 | 0 |
| 27 | 89 | 73 | 81 | 98 | 61 | 85 | 0 |
| 28 | 89 | 73 | 81 | 98 | 61 | 85 | .47 |
| 29 | 92 | 71 | 82 | 97 | 54 | 81 | 0 |
| 30 | 89 | 73 | 81 | 98 | 60 | 82 | .08 |
| 31 | | | | | | | |
| Sum | 2623 | 2194 | | 2903 | 2027 | | 8.00 |
| Mean | 87.4 | 73.1 | 80.2 | 96.8 | 67.6 | 88.4 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1950 | 10.83 | 1955 | 15.75 |
| 1951 | 8.59 | 1956 | 10.17 |
| 1952 | 10.85 | 1957 | 8.68 |
| 1953 | 6.28 | 1958 | 12.65 |
| 1954 | 13.62 | 1959 | 8.00 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.822
Departure from normal +.004
Highest .93 Date 22
Lowest .65 Date 6

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.2
Departure from normal +1.0
Highest 94 Date 4
Lowest 71 Date 29

### RAINFALL
(Inches)

Total 8.00
Departure from normal -2.21
Greatest in 24 hours 1.70
Date 18

### WIND

Average hourly velocity 4.3 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the NW on the 7

### SUNSHINE

Average number hours per day 6.4
Percentage of possible 54

### NUMBER OF DAYS

Clear 1
Partly Cloudy 9
Cloudy 20
.01 inch of rain or more 22
Thunderstorms 12
Light fog 1
Dense fog 0

Number of hours with rain 52

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** December 1959

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 73 | 82 | 98 | 50 | 79 | .03 |
| 2 | 92 | 72 | 82 | 95 | 54 | 80 | 0 |
| 3 | 88 | 74 | 81 | 95 | 62 | 83 | .01 |
| 4 | 86 | 73 | 80 | 98 | 64 | 91 | 1.07 |
| 5 | 78 | 73 | 76 | 98 | 89 | 97 | .83 |
| 6 | 79 | 73 | 76 | 98 | 84 | 96 | .90 |
| 7 | 89 | 74 | 82 | 98 | 62 | 85 | .03 |
| 8 | 86 | 74 | 80 | 96 | 67 | 88 | .27 |
| 9 | 91 | 73 | 82 | 98 | 59 | 81 | 0 |
| 10 | 90 | 72 | 81 | 97 | 55 | 80 | T |
| 11 | 88 | 72 | 80 | 96 | 64 | 82 | T |
| 12 | 89 | 74 | 82 | 97 | 63 | 87 | .52 |
| 13 | 91 | 72 | 82 | 99 | 55 | 85 | .04 |
| 14 | 91 | 75 | 83 | 98 | 63 | 83 | T |
| 15 | 91 | 74 | 82 | 98 | 56 | 81 | 0 |
| 16 | 90 | 75 | 82 | 99 | 71 | 92 | 1.12 |
| 17 | 88 | 74 | 81 | 99 | 66 | 93 | .23 |
| 18 | 91 | 74 | 82 | 99 | 63 | 85 | .04 |
| 19 | 89 | 75 | 82 | 97 | 60 | 82 | 0 |
| 20 | 92 | 73 | 82 | 96 | 49 | 76 | 0 |
| 21 | 92 | 71 | 82 | 97 | 52 | 78 | 0 |
| 22 | 92 | 73 | 82 | 97 | 58 | 79 | 0 |
| 23 | 89 | 73 | 81 | 92 | 64 | 84 | .01 |
| 24 | 88 | 74 | 81 | 94 | 73 | 86 | .01 |
| 25 | 90 | 75 | 82 | 95 | 63 | 85 | .08 |
| 26 | 92 | 75 | 84 | 94 | 60 | 77 | 0 |
| 27 | 90 | 76 | 83 | 93 | 73 | 86 | .24 |
| 28 | 88 | 76 | 82 | 94 | 72 | 90 | .49 |
| 29 | 87 | 76 | 82 | 95 | 72 | 90 | .05 |
| 30 | 84 | 74 | 79 | 96 | 73 | 91 | 1.00 |
| 31 | 81 | 74 | 78 | 97 | 78 | 93 | 1.49 |
| Sum | 2744 | 2286 | | 2993 | 1991 | | 8.46 |
| Mean | 88.5 | 73.7 | 81.1 | 96.5 | 64.2 | 85.3 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1950 | 4.60 | 1955 | 9.96 |
| 1951 | 4.07 | 1956 | 2.62 |
| 1952 | 13.46 | 1957 | .61 |
| 1953 | 5.23 | 1958 | 2.75 |
| 1954 | 3.80 | 1959 | 8.46 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.816
Departure from normal -.004
Highest 29.93 Date 6
Lowest 29.68 Date 28

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.1
Departure from normal +1.3
Highest 92 Date 26
Lowest 71 Date 21

### RAINFALL
(Inches)

Total 8.46
Departure from normal +3.49
Greatest in 24 hours 2.44
Date 30-31

### WIND

Average hourly velocity 5.9 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the N on the 9

### SUNSHINE

Average number hours per day 8.0
Percentage of possible 69

### NUMBER OF DAYS

Clear 4
Partly Cloudy 15
Cloudy 12
.01 inch of rain or more 20
Thunderstorms 3
Light fog 0
Dense fog 0

Number of hours with rain 69

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** JANUARY 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 72 | 80 | 96 | 69 | 91 | .20 |
| 2 | 86 | 74 | 80 | 95 | 71 | 90 | .11 |
| 3 | 86 | 73 | 80 | 95 | 69 | 89 | 1.60 |
| 4 | 90 | 73 | 82 | 95 | 52 | 78 | 0 |
| 5 | 91 | 72 | 82 | 93 | 55 | 77 | 0 |
| 6 | 88 | 73 | 80 | 94 | 61 | 84 | .35 |
| 7 | 90 | 71 | 80 | 95 | 60 | 83 | T |
| 8 | 84 | 72 | 78 | 95 | 66 | 90 | .20 |
| 9 | 90 | 71 | 80 | 96 | 54 | 79 | 0 |
| 10 | 89 | 72 | 80 | 92 | 57 | 78 | 0 |
| 11 | 91 | 72 | 82 | 94 | 55 | 78 | 0 |
| 12 | 90 | 73 | 82 | 94 | 58 | 79 | T |
| 13 | 89 | 73 | 81 | 94 | 58 | 78 | 0 |
| 14 | 90 | 73 | 82 | 93 | 56 | 82 | .19 |
| 15 | 84 | 74 | 79 | 94 | 70 | 90 | 1.36 |
| 16 | 91 | 73 | 82 | 96 | 61 | 87 | .35 |
| 17 | 92 | 73 | 82 | 95 | 59 | 80 | T |
| 18 | 92 | 75 | 84 | 95 | 59 | 80 | 0 |
| 19 | 90 | 73 | 82 | 95 | 60 | 81 | .10 |
| 20 | 90 | 74 | 82 | 93 | 52 | 74 | 0 |
| 21 | 89 | 72 | 80 | 92 | 55 | 77 | .01 |
| 22 | 89 | 71 | 80 | 93 | 51 | 74 | 0 |
| 23 | 91 | 70 | 80 | 94 | 54 | 77 | 0 |
| 24 | 91 | 73 | 82 | 95 | 57 | 78 | 0 |
| 25 | 92 | 73 | 82 | 94 | 54 | 78 | 0 |
| 26 | 93 | 74 | 84 | 94 | 53 | 77 | 0 |
| 27 | 92 | 74 | 83 | 92 | 53 | 74 | 0 |
| 28 | 91 | 73 | 82 | 94 | 52 | 75 | 0 |
| 29 | 93 | 73 | 83 | 96 | 49 | 75 | 0 |
| 30 | 88 | 73 | 80 | 91 | 56 | 76 | 0 |
| 31 | 91 | 71 | 81 | 94 | 52 | 76 | 0 |
| Sum | 2780 | 2253 | | 2918 | 1788 | | 4.47 |
| Mean | 89.7 | 72.7 | 81.2 | 94.1 | 57.7 | 80.1 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1951 | 1.43 | 1956 | 2.63 |
| 1952 | .41 | 1957 | .44 |
| 1953 | 2.66 | 1958 | .79 |
| 1954 | .61 | 1959 | 1.05 |
| 1955 | 4.32 | 1960 | 4.47 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.864
Departure from normal +.022
Highest 29.98 Date 21
Lowest 29.75 Date 19

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 81.2
Departure from normal +1.3
Highest 93 Date 26
Lowest 70 Date 23

**RAINFALL**
**(Inches)**

Total 4.47
Departure from normal + 3.32
Greatest in 24 hours 1.60
Date 3

**WIND**

Average hourly velocity 6.0 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the NW on the 20

**SUNSHINE**

Average number hours per day 8.6
Percentage of possible 73

**NUMBER OF DAYS**

Clear 11
Partly Cloudy 14
Cloudy 6
.01 inch of rain or more 10
Thunderstorms 2
Light fog 0
Dense fog 0
Number of hours with rain 23

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** FEBRUARY 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 71 | 82 | 94 | 49 | 74 | 0 |
| 2 | 93 | 72 | 82 | 95 | 49 | 74 | 0 |
| 3 | 89 | 70 | 80 | 96 | 57 | 78 | 0 |
| 4 | 86 | 70 | 78 | 97 | 60 | 79 | 0 |
| 5 | 87 | 69 | 78 | 96 | 58 | 81 | 0 |
| 6 | 90 | 70 | 80 | 95 | 53 | 78 | 0 |
| 7 | 92 | 71 | 82 | 95 | 52 | 77 | 0 |
| 8 | 92 | 72 | 82 | 95 | 50 | 74 | 0 |
| 9 | 90 | 71 | 80 | 96 | 54 | 78 | 0 |
| 10 | 89 | 70 | 79 | 96 | 51 | 76 | 0 |
| 11 | 89 | 71 | 80 | 95 | 55 | 78 | 0 |
| 12 | 92 | 71 | 82 | 96 | 51 | 78 | 0 |
| 13 | 88 | 73 | 80 | 96 | 62 | 84 | .28 |
| 14 | 87 | 73 | 80 | 97 | 56 | 80 | 0 |
| 15 | 90 | 73 | 82 | 98 | 49 | 79 | T |
| 16 | 92 | 72 | 82 | 95 | 42 | 72 | 0 |
| 17 | 92 | 72 | 82 | 95 | 47 | 73 | 0 |
| 18 | 92 | 73 | 82 | 97 | 52 | 83 | .22 |
| 19 | 91 | 74 | 82 | 98 | 56 | 80 | T |
| 20 | 92 | 76 | 84 | 93 | 56 | 77 | 0 |
| 21 | 93 | 76 | 84 | 95 | 54 | 83 | .14 |
| 22 | 90 | 75 | 82 | 97 | 60 | 81 | .24 |
| 23 | 90 | 74 | 82 | 98 | 56 | 79 | 0 |
| 24 | 92 | 75 | 84 | 95 | 48 | 76 | 0 |
| 25 | 92 | 73 | 82 | 97 | 52 | 78 | 0 |
| 26 | 93 | 73 | 83 | 95 | 49 | 74 | T |
| 27 | 93 | 75 | 84 | 85 | 45 | 68 | 0 |
| 28 | 91 | 75 | 83 | 85 | 52 | 72 | 0 |
| 29 | 92 | 74 | 83 | 90 | 47 | 73 | 0 |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Sum | 2631 | 2104 | | 2752 | 1522 | | .88 |
| Mean | 90.7 | 72.6 | 81.6 | 94.9 | 52.5 | 77.2 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1951 | 1.59 | 1956 | 1.22 |
| 1952 | .11 | 1957 | T |
| 1953 | 2.49 | 1958 | .14 |
| 1954 | .86 | 1959 | 0 |
| 1955 | 2.43 | 1960 | .88 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.852
Departure from normal -0.002
Highest 29.98 Date 14
Lowest 29.74 Date 27

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 81.6
Departure from normal +1.2
Highest 93 Date 26
Lowest 69 Date 5

**RAINFALL**
**(Inches)**

Total .88
Departure from normal +0.25
Greatest in 24 hours .38
Date 21 - 22

**WIND**

Average hourly velocity 6.2 mph.
Prevailing direction NW
Maximum for five minutes 25
mph. from the N on the 27

**SUNSHINE**

Average number hours per day 9.5
Percentage of possible 80

**NUMBER OF DAYS**

Clear 3
Partly Cloudy 20
Cloudy 6
.01 inch of rain or more 4
Thunderstorms 1
Light fog 1
Dense fog 1

Number of hours with rain 6

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** APRIL 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 73 | 83 | 92 | 48 | 72 | 0 |
| 2 | 92 | 75 | 84 | 91 | 47 | 71 | 0 |
| 3 | 94 | 75 | 84 | 90 | 45 | 70 | 0 |
| 4 | 91 | 74 | 82 | 88 | 49 | 71 | .02 |
| 5 | 92 | 72 | 82 | 92 | 45 | 72 | 0 |
| 6 | 90 | 74 | 82 | 85 | 45 | 71 | 0 |
| 7 | 92 | 73 | 82 | 96 | 43 | 71 | .03 |
| 8 | 94 | 73 | 84 | 90 | 39 | 67 | 0 |
| 9 | 94 | 71 | 82 | 93 | 36 | 68 | 0 |
| 10 | 92 | 72 | 82 | 93 | 49 | 74 | 0 |
| 11 | 92 | 73 | 82 | 95 | 49 | 76 | 0 |
| 12 | 94 | 72 | 83 | 94 | 40 | 71 | 0 |
| 13 | 90 | 72 | 81 | 93 | 47 | 75 | .01 |
| 14 | 91 | 73 | 82 | 92 | 46 | 72 | 0 |
| 15 | 93 | 74 | 84 | 89 | 43 | 70 | 0 |
| 16 | 95 | 74 | 84 | 91 | 46 | 72 | 0 |
| 17 | 91 | 73 | 82 | 95 | 50 | 85 | .04 |
| 18 | 84 | 73 | 78 | 97 | 71 | 90 | T |
| 19 | 85 | 73 | 79 | 95 | 66 | 86 | T |
| 20 | 93 | 74 | 84 | 95 | 49 | 74 | 0 |
| 21 | 94 | 72 | 83 | 91 | 40 | 68 | 0 |
| 22 | 94 | 72 | 83 | 92 | 43 | 72 | 0 |
| 23 | 85 | 73 | 79 | 96 | 64 | 86 | .13 |
| 24 | 84 | 73 | 78 | 96 | 62 | 88 | .17 |
| 25 | 90 | 72 | 81 | 96 | 50 | 81 | .05 |
| 26 | 89 | 75 | 82 | 94 | 60 | 80 | .11 |
| 27 | 91 | 75 | 83 | 93 | 52 | 75 | 0 |
| 28 | 94 | 73 | 84 | 95 | 39 | 69 | 0 |
| 29 | 92 | 72 | 82 | 94 | 50 | 73 | 0 |
| 30 | 92 | 73 | 82 | 95 | 46 | 73 | 0 |
| 31 | 92 | 74 | 83 | 93 | 53 | 77 | T |
| Sum | 2829 | 2267 | | 2881 | 1512 | | .56 |
| Mean | 91.3 | 73.1 | 82.2 | 92.9 | 48.8 | 74.9 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1951 | .34 | 1956 | .40 |
| 1952 | .11 | 1957 | T |
| 1953 | 1.53 | 1958 | T |
| 1954 | .20 | 1959 | T |
| 1955 | .58 | 1960 | .56 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.861
Departure from normal: + .019
Highest: .97 Date: 13
Lowest: .73 Date: 16

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 82.2
Departure from normal: +0.6
Highest: 95 Date: 16
Lowest: 71 Date: 9

### RAINFALL
(Inches)

Total: .56
Departure from normal: -0.08
Greatest in 24 hours: .30
Date: 23-24

### WIND

Average hourly velocity: 7.9 mph.
Prevailing direction: NW
Maximum for five minutes: 25
mph. from the NW on the 6

### SUNSHINE

Average number hours per day: 7.5
Percentage of possible: 62

### NUMBER OF DAYS

Clear: 0
Partly Cloudy: 16
Cloudy: 15
.01 inch of rain or more: 8
Thunderstorms: 1
Light fog: 1
Dense fog: 0

Number of hours with rain: 15

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** APRIL 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 94 | 74 | 84 | 92 | 47 | 74 | 0 |
| 2 | 96 | 73 | 84 | 93 | 38 | 73 | 0 |
| 3 | 89 | 74 | 82 | 95 | 53 | 78 | 0 |
| 4 | 89 | 75 | 82 | 95 | 56 | 83 | 0 |
| 5 | 94 | 75 | 84 | 94 | 44 | 72 | 0 |
| 6 | 94 | 75 | 84 | 93 | 43 | 70 | 0 |
| 7 | 93 | 74 | 84 | 95 | 40 | 69 | .04 |
| 8 | 95 | 72 | 84 | 91 | 40 | 69 | 0 |
| 9 | 92 | 75 | 84 | 92 | 53 | 69 | 0 |
| 10 | 90 | 76 | 83 | 93 | 60 | 82 | 0 |
| 11 | 90 | 75 | 82 | 95 | 57 | 83 | T |
| 12 | 85 | 76 | 80 | 94 | 67 | 87 | .12 |
| 13 | 92 | 75 | 84 | 95 | 49 | 73 | 0 |
| 14 | 88 | 76 | 82 | 91 | 62 | 80 | 0 |
| 15 | 86 | 75 | 80 | 96 | 67 | 88 | .27 |
| 16 | 87 | 75 | 81 | 97 | 59 | 81 | 0 |
| 17 | 88 | 75 | 82 | 94 | 59 | 86 | .16 |
| 18 | 95 | 72 | 84 | 94 | 41 | 74 | 0 |
| 19 | 91 | 74 | 82 | 97 | 50 | 76 | 0 |
| 20 | 94 | 75 | 84 | 91 | 47 | 74 | 0 |
| 21 | 91 | 74 | 82 | 94 | 50 | 84 | 1.51 |
| 22 | 95 | 75 | 85 | 94 | 46 | 76 | 0 |
| 23 | 91 | 76 | 84 | 92 | 54 | 80 | .10 |
| 24 | 88 | 74 | 81 | 94 | 60 | 86 | .34 |
| 25 | 86 | 73 | 80 | 94 | 61 | 83 | 0 |
| 26 | 90 | 73 | 82 | 94 | 55 | 76 | 0 |
| 27 | 91 | 75 | 83 | 93 | 52 | 78 | 0 |
| 28 | 88 | 78 | 83 | 93 | 63 | 84 | .03 |
| 29 | 94 | 77 | 86 | 94 | 57 | 84 | .34 |
| 30 | 90 | 70 | 80 | 97 | 58 | 90 | 3.92 |
| 31 | | | | | | | |
| Sum | 2726 | 2236 | | 2816 | 1588 | | 6.83 |
| Mean | 90.9 | 74.5 | 82.7 | 93.9 | 52.9 | 78.9 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1951 | 4.89 | 1956 | 2.23 |
| 1952 | .58 | 1957 | 1.85 |
| 1953 | .07 | 1958 | 3.01 |
| 1954 | 3.33 | 1959 | 1.46 |
| 1955 | .41 | 1960 | 6.83 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean: 29.832
Departure from normal: +.004
Highest: 29.97 Date: 5
Lowest: 29.72 Date: 26

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean: 82.7
Departure from normal: +0.5
Highest: 96 Date: 2
Lowest: 70 Date: 30

**RAINFALL**
**(Inches)**

Total: 6.83
Departure from normal: +4.15
Greatest in 24 hours: 4.48
Date: 30th April - 1st May

**WIND**

Average hourly velocity: 6.2 mph.
Prevailing direction: NW
Maximum for five minutes: 22
mph. from the NW on the 7

**SUNSHINE**

Average number hours per day: 7.9
Percentage of possible: 64

**NUMBER OF DAYS**

Clear: 0
Partly Cloudy: 10
Cloudy: 20
.01 inch of rain or more: 10
Thunderstorms: 7
Light fog: 1
Dense fog: 1

Number of hours with rain: 24

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** Balboa Heights **Month:** Nov, 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 73 | 78 | 98 | 72 | 80 | .57 |
| 2 | 88 | 73 | 80 | 94 | [illegible] | 84 | T |
| 3 | 84 | 75 | 80 | 93 | 74 | 88 | 0 |
| 4 | 85 | 75 | 80 | 93 | 65 | 88 | 1.10 |
| 5 | 85 | 75 | 80 | 93 | 72 | 88 | .01 |
| 6 | 86 | 75 | 80 | 94 | 65 | 87 | .20 |
| 7 | 84 | 75 | 80 | 93 | 72 | 90 | .76 |
| 8 | 86 | 75 | 80 | 95 | 65 | 85 | T |
| 9 | 88 | 74 | 80 | [illegible] | [illegible] | 86 | .27 |
| 10 | 87 | 74 | 80 | 92 | 63 | 85 | .57 |
| 11 | 86 | 74 | 80 | 92 | 63 | 85 | .01 |
| 12 | 90 | 75 | 82 | 92 | 60 | 85 | .25 |
| 13 | 86 | 75 | 80 | [illegible] | 70 | 87 | .04 |
| 14 | 87 | 74 | 80 | [illegible] | 63 | 86 | .66 |
| 15 | 87 | 74 | 80 | 95 | [illegible] | 86 | .19 |
| 16 | 87 | 75 | 81 | 93 | 64 | 85 | 0 |
| 17 | 87 | 76 | 82 | 93 | 74 | [illegible] | T |
| 18 | 84 | 76 | 80 | 93 | 72 | 86 | 0 |
| 19 | 85 | 75 | 80 | 95 | 75 | 85 | .06 |
| 20 | 84 | 74 | 78 | 95 | 76 | 90 | T |
| 21 | 87 | 73 | 80 | 94 | 67 | 80 | .62 |
| 22 | 84 | 74 | 79 | 94 | 70 | 84 | .08 |
| 23 | 88 | 74 | 81 | 9[illegible] | 65 | 87 | 0 |
| 24 | 87 | 75 | 81 | 97 | 64 | 87 | 0 |
| 25 | 83 | 72 | 80 | 90 | 72 | 91 | .37 |
| 26 | 86 | 76 | 81 | 97 | 71 | 90 | .16 |
| 27 | 87 | 76 | 82 | 96 | 66 | 87 | .41 |
| 28 | 86 | 75 | 80 | 95 | 70 | 85 | T |
| 29 | 87 | 77 | 82 | 94 | 72 | 86 | .52 |
| 30 | 85 | 75 | 80 | 94 | 75 | 91 | .04 |
| 31 | 86 | 75 | 80 | 94 | 70 | 86 | .05 |
| Sum | 2641 | 2319 | | 2931 | 2129 | | 7.28 |
| Mean | 85.2 | 74.8 | 80.3 | 94.5 | 68.7 | 87.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1951 | 8.22 | 1956 | 10.81 |
| 1952 | 15.06 | 1957 | 9.48 |
| 1953 | 8.80 | 1958 | 10.47 |
| 1954 | 8.46 | 1959 | 9.23 |
| 1955 | 6.74 | 1960 | 7.28 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.83
Departure from normal -.01
Highest .92 Date 4
Lowest .71 Date 18

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.3
Departure from normal -0.6
Highest 90 Date 13
Lowest 73 Date 21

**RAINFALL**
**(Inches)**

Total 7.28
Departure from normal -.57
Greatest in 24 hours 1.10
Date 4-5

**WIND**

Average hourly velocity 3.7 mph.
Prevailing direction N.W.
Maximum for five minutes 18
mph. from the N on the 13

**SUNSHINE**

Average number hours per day 6.0
Percentage of possible 32

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 2
Cloudy 28
.01 inch of rain or more 21
Thunderstorms 21
Light fog 0
Dense fog 0

Number of hours with rain 41

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Rev. 10-58

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** JUNE, 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 76 | 81 | 98 | 70 | 90 | .67 |
| 2 | 85 | 75 | 80 | 96 | 70 | 88 | .05 |
| 3 | 88 | 75 | 82 | 95 | 62 | 82 | 0 |
| 4 | 84 | 75 | 80 | 98 | 77 | 90 | .43 |
| 5 | 85 | 74 | 80 | 97 | 76 | 93 | .57 |
| 6 | 86 | 74 | 80 | 96 | 67 | 83 | .01 |
| 7 | 85 | 76 | 80 | 95 | 70 | 87 | T |
| 8 | 83 | 78 | 80 | 93 | 81 | 86 | .05 |
| 9 | 86 | 77 | 82 | 94 | 70 | 81 | 0 |
| 10 | 88 | 76 | 82 | 95 | 67 | 85 | 0 |
| 11 | 91 | 74 | 82 | 94 | 56 | 76 | 0 |
| 12 | 92 | 75 | 84 | 93 | 54 | 77 | T |
| 13 | 87 | 76 | 82 | 95 | 67 | 86 | .06 |
| 14 | 87 | 74 | 80 | 95 | 67 | 88 | 1.22 |
| 15 | 84 | 73 | 78 | 96 | 67 | 90 | .02 |
| 16 | 87 | 72 | 80 | 95 | 61 | 84 | T |
| 17 | 84 | 74 | 79 | 94 | 76 | 89 | .74 |
| 18 | 84 | 73 | 78 | 95 | 74 | 89 | .12 |
| 19 | 79 | 74 | 76 | 98 | 86 | 94 | 1.15 |
| 20 | 84 | 72 | 78 | 96 | 71 | 85 | 0 |
| 21 | 89 | 75 | 82 | 94 | 61 | 85 | .07 |
| 22 | 89 | 76 | 82 | 95 | 67 | 85 | T |
| 23 | 85 | 74 | 80 | 93 | 74 | 90 | .14 |
| 24 | 85 | 75 | 80 | 94 | 68 | 83 | .05 |
| 25 | 87 | 73 | 80 | 94 | 63 | 83 | T |
| 26 | 86 | 76 | 81 | 93 | 71 | 86 | 0 |
| 27 | 88 | 75 | 82 | 94 | 64 | 88 | .01 |
| 28 | 84 | 75 | 80 | 94 | 66 | 82 | 0 |
| 29 | 89 | 73 | 81 | 93 | 62 | 84 | T |
| 30 | 89 | 75 | 82 | 93 | 66 | 84 | 0 |
| 31 | | | | | | | |
| Sum | 2586 | 2240 | | 2844 | 2051 | | 5.36 |
| Mean | 86.2 | 74.7 | 80.4 | 94.8 | 68.4 | 85.8 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1951 | 3.97 | 1956 | 10.10 |
| 1952 | 6.49 | 1957 | 5.71 |
| 1953 | 7.48 | 1958 | 5.50 |
| 1954 | 13.26 | 1959 | 4.57 |
| 1955 | 8.34 | 1960 | 5.36 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean .838
Departure from normal + .010
Highest 29.94 Date 16
Lowest 29.70 Date 23

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.4
Departure from normal + 0.2
Highest 92 Date 12
Lowest 72 Date 16

### RAINFALL
(Inches)

Total 5.36
Departure from normal - 2.66
Greatest in 24 hours 1.24
Date 14 & 15

### WIND

Average hourly velocity 4.6 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the SW on the 23

### SUNSHINE

Average number hours per day 6.2
Percentage of possible 49

### NUMBER OF DAYS

Clear 0
Partly Cloudy 8
Cloudy 22
.01 inch of rain or more 16
Thunderstorms 13
Light fog 1
Dense fog 1

Number of hours with rain 54

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Rev. 10-58

# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** Balboa Heights, Canal Zone **Month:** July, 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 76 | 81 | 94 | 71 | 86 | T |
| 2 | 90 | 76 | 83 | 94 | 67 | 89 | .42 |
| 3 | 84 | 76 | 80 | 96 | 79 | 90 | .07 |
| 4 | 89 | 73 | 81 | 94 | 63 | 89 | .36 |
| 5 | 87 | 73 | 80 | 96 | 68 | 88 | .09 |
| 6 | 85 | 75 | 80 | 93 | 71 | 88 | .06 |
| 7 | 87 | 74 | 80 | 93 | 70 | 91 | .40 |
| 8 | 87 | 73 | 80 | 96 | 63 | 84 | T |
| 9 | 89 | 74 | 82 | 93 | 65 | 83 | 0 |
| 10 | 84 | 73 | 78 | 95 | 72 | 87 | .01 |
| 11 | 88 | 74 | 81 | 94 | 63 | 85 | T |
| 12 | 88 | 75 | 82 | 93 | 67 | 87 | 2.28 |
| 13 | 87 | 73 | 80 | 95 | 65 | 83 | .11 |
| 14 | 80 | 72 | 76 | 94 | 80 | 89 | .22 |
| 15 | 84 | 74 | 79 | 94 | 70 | 80 | 0 |
| 16 | 86 | 72 | 79 | 93 | 64 | 84 | 0 |
| 17 | 87 | 73 | 80 | 94 | 65 | 81 | 0 |
| 18 | 89 | 75 | 82 | 93 | 64 | 85 | 0 |
| 19 | 88 | 75 | 82 | 93 | 68 | 87 | .04 |
| 20 | 87 | 75 | 81 | 94 | 68 | 86 | T |
| 21 | 90 | 74 | 82 | 94 | 66 | 86 | .55 |
| 22 | 88 | 72 | 80 | 94 | 63 | 84 | T |
| 23 | 88 | 74 | 81 | 93 | 67 | 85 | .15 |
| 24 | 87 | 74 | 80 | 95 | 69 | 87 | T |
| 25 | 91 | 75 | 83 | 95 | 65 | 86 | .82 |
| 26 | 87 | 74 | 80 | 94 | 68 | 87 | .01 |
| 27 | 87 | 73 | 80 | 94 | 66 | 84 | T |
| 28 | 88 | 73 | 80 | 93 | 66 | 84 | 0 |
| 29 | 86 | 75 | 80 | 95 | 70 | 87 | T |
| 30 | 85 | 74 | 80 | 95 | 74 | 89 | 0 |
| 31 | 85 | 72 | 78 | 95 | 74 | 88 | .02 |
| Sum | 2694 | 22.91 | — | 2918 | 2111 | — | 5.61 |
| Mean | 86.9 | 73.9 | 80.4 | 94.1 | 68.1 | 86.1 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1951 | 4.97 | 1956 | 13.08 |
| 1952 | 8.49 | 1957 | 10.73 |
| 1953 | 5.30 | 1958 | 6.31 |
| 1954 | 8.25 | 1959 | 5.59 |
| 1955 | 10.06 | 1960 | 5.61 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.852
Departure from normal +.022
Highest 29.97 Date 31
Lowest 29.76 Date 4

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.4
Departure from normal ±0.0
Highest 91 Date 25
Lowest 72 Date 31

### RAINFALL
(Inches)

Total 5.61
Departure from normal -1.81
Greatest in 24 hours 2.28
Date 12th

### WIND

Average hourly velocity 4.4 mph.
Prevailing direction NW
Maximum for five minutes 18
mph. from the NW on the 23

### SUNSHINE

Average number hours per day 6.0
Percentage of possible 48

### NUMBER OF DAYS

Clear 0
Partly Cloudy 9
Cloudy 22
.01 inch of rain or more 16
Thunderstorms 2
Light fog 1
Dense fog 1

Number of hours with rain 51

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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SEP 14 1960
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** [illegible] **Month:** [illegible]

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 71 | 82 | 95 | 63 | 82 | 0 |
| 2 | 92 | 75 | 84 | 95 | 64 | 81 | 0 |
| 3 | 92 | 75 | 84 | 94 | 63 | 80 | .48 |
| 4 | 80 | 76 | 81 | 95 | 75 | 90 | .03 |
| 5 | 89 | 74 | 82 | 97 | 69 | 87 | 0 |
| 6 | 89 | 75 | 82 | 94 | 71 | 88 | .34 |
| 7 | 88 | 75 | 82 | 96 | 72 | 90 | .03 |
| 8 | 93 | 74 | 84 | 94 | 64 | 88 | .01 |
| 9 | 83 | 75 | 79 | 95 | 85 | 92 | .11 |
| 10 | 88 | 75 | 82 | 95 | 73 | 91 | .07 |
| 11 | 82 | 73 | 78 | 94 | 77 | 90 | .10 |
| 12 | 83 | 72 | 78 | 94 | 74 | 88 | 0.29 |
| 13 | 83 | 72 | 78 | 96 | 74 | 90 | 1.21 |
| 14 | 87 | 74 | 80 | 95 | 64 | 84 | .01 |
| 15 | 86 | 72 | 79 | 95 | 68 | 86 | 0 |
| 16 | 88 | 74 | 81 | 96 | 66 | 86 | 0 |
| 17 | 86 | 75 | 80 | 96 | 72 | 89 | .05 |
| 18 | 86 | 73 | 80 | 95 | 71 | 86 | 0 |
| 19 | 91 | 74 | 82 | 94 | 63 | 88 | .59 |
| 20 | 86 | 75 | 80 | 94 | 73 | 90 | .02 |
| 21 | 88 | 73 | 80 | 95 | 74 | 84 | 0 |
| 22 | 89 | 75 | 82 | 96 | 70 | 88 | 1.00 |
| 23 | 86 | 74 | 80 | 95 | 72 | 87 | 0 |
| 24 | 88 | 75 | 82 | 95 | 71 | 89 | .04 |
| 25 | 89 | 75 | 82 | 96 | 71 | 87 | .03 |
| 26 | 82 | 73 | 78 | 94 | 78 | 90 | .16 |
| 27 | 84 | 74 | 79 | 95 | 75 | 87 | .06 |
| 28 | 84 | 74 | 79 | 92 | 75 | 88 | .62 |
| 29 | 81 | 72 | 76 | 96 | 81 | 92 | .18 |
| 30 | 86 | 71 | 78 | 96 | 74 | 86 | T |
| 31 | 86 | 76 | 81 | 92 | 72 | 82 | .11 |
| Sum | 2693 | 2291 | | 2941 | 2214 | | 11.74 |
| Mean | 86.9 | 73.9 | 80.4 | 94.9 | 71.4 | 87.5 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1951 | 2.90 | 1956 | 11.51 |
| 1952 | 5.06 | 1957 | 10.06 |
| 1953 | 6.75 | 1958 | 9.05 |
| 1954 | 6.49 | 1959 | 7.62 |
| 1955 | 11.30 | 1960 | 11.74 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.637
Departure from normal: +.007
Highest: 29.98 Date: 13
Lowest: 29.70 Date: 3

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 80.4
Departure from normal: +0.1
Highest: 93 Date: 8
Lowest: 71 Date: 30

### RAINFALL
(Inches)

Total: 11.74
Departure from normal: +3.91
Greatest in 24 hours: 7.32
Date: 12 - 13

### WIND

Average hourly velocity: 4.8 mph.
Prevailing direction: NW
Maximum for five minutes: 22
mph. from the NW on the 25

### SUNSHINE

Average number hours per day: 5.1
Percentage of possible: 41

### NUMBER OF DAYS

Clear: 0
Partly Cloudy: 13
Cloudy: 18
.01 inch of rain or more: 22
Thunderstorms: 7
Light fog: 0
Dense fog: 0

Number of hours with rain: 63

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** SEPTEMBER 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 80 | 74 | 77 | 94 | 79 | 88 | .42 |
| 2 | 84 | 73 | 78 | 95 | 77 | 88 | 0 |
| 3 | 89 | 73 | 81 | 96 | 66 | 87 | 0 |
| 4 | 86 | 75 | 80 | 95 | 73 | 90 | .36 |
| 5 | 78 | 73 | 76 | 97 | 93 | 96 | 1.07 |
| 6 | 85 | 71 | 78 | 96 | 67 | 86 | .01 |
| 7 | 88 | 73 | 80 | 95 | 66 | 83 | 0 |
| 8 | 91 | 73 | 82 | 95 | 63 | 83 | 0 |
| 9 | 86 | 75 | 80 | 94 | 66 | 84 | 0 |
| 10 | 79 | 72 | 76 | 95 | 86 | 94 | .70 |
| 11 | 87 | 73 | 80 | 95 | 70 | 85 | 0 |
| 12 | 87 | 72 | 80 | 94 | 69 | 88 | .05 |
| 13 | 90 | 75 | 82 | 94 | 68 | 85 | .08 |
| 14 | 78 | 76 | 77 | 95 | 93 | 95 | .32 |
| 15 | 89 | 72 | 80 | 96 | 67 | 84 | 0 |
| 16 | 87 | 73 | 80 | 94 | 66 | 85 | 0 |
| 17 | 88 | 74 | 81 | 94 | 68 | 87 | 0 |
| 18 | 87 | 74 | 80 | 94 | 71 | 88 | .09 |
| 19 | 87 | 72 | 80 | 94 | 66 | 85 | 0 |
| 20 | 90 | 74 | 82 | 94 | 65 | 88 | .04 |
| 21 | 87 | 76 | 82 | 94 | 72 | 85 | 0 |
| 22 | 88 | 71 | 80 | 94 | 69 | 90 | .44 |
| 23 | 85 | 72 | 78 | 94 | 70 | 86 | 0 |
| 24 | 87 | 73 | 80 | 94 | 71 | 86 | 0 |
| 25 | 85 | 72 | 78 | 93 | 76 | 91 | .53 |
| 26 | 84 | 72 | 78 | 95 | 74 | 90 | 1.71 |
| 27 | 84 | 73 | 78 | 94 | 73 | 89 | .18 |
| 28 | 89 | 74 | 82 | 94 | 65 | 84 | 0 |
| 29 | 88 | 75 | 82 | 94 | 71 | 86 | 0 |
| 30 | 91 | 74 | 82 | 94 | 67 | 85 | .03 |
| 31 | | | | | | | |
| Sum | 2584 | 2199 | | 2836 | 2147 | | 6.03 |
| Mean | 86.1 | 73.3 | 79.7 | 94.5 | 71.6 | 87.4 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1951 | 9.79 | 1956 | 5.00 |
| 1952 | 8.60 | 1957 | 5.66 |
| 1953 | 7.07 | 1958 | 13.74 |
| 1954 | 8.68 | 1959 | 5.79 |
| 1955 | 8.28 | 1960 | 6.03 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.835
Departure from normal +.010
Highest 29.94 Date 27
Lowest 29.73 Date 17

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 79.7
Departure from normal -0.1
Highest 90 Date 20
Lowest 71 Date 6

**RAINFALL**
(Inches)

Total 6.03
Departure from normal -1.83
Greatest in 24 hours 1.89
Date 26 & 27

**WIND**

Average hourly velocity 4.1 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the N on the 22

**SUNSHINE**

Average number hours per day 6.3
Percentage of possible 52

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 10
Cloudy 20
.01 inch of rain or more 15
Thunderstorms 6
Light fog 0
Dense fog 0

Number of hours with rain 57

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** DARIEN HEIGHTS **Month:** OCTOBER 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 75 | 82 | 94 | 68 | 88 | 0 |
| 2 | 88 | 76 | 82 | 93 | 75 | 89 | .01 |
| 3 | 83 | 74 | 78 | 95 | 75 | 89 | .20 |
| 4 | 91 | 74 | 82 | 95 | 62 | 84 | .14 |
| 5 | 90 | 74 | 82 | 95 | 66 | 86 | .25 |
| 6 | 87 | 74 | 80 | 94 | 71 | 88 | .10 |
| 7 | 90 | 74 | 82 | 94 | 66 | 85 | .07 |
| 8 | 84 | 75 | 80 | 95 | 78 | 91 | .04 |
| 9 | 86 | 75 | 80 | 95 | 77 | 91 | .54 |
| 10 | 85 | 70 | 78 | 94 | 60 | 85 | .01 |
| 11 | 86 | 74 | 81 | 93 | 70 | 85 | 0 |
| 12 | 87 | 75 | 81 | 93 | 60 | 85 | T |
| 13 | 87 | 75 | 81 | 93 | 74 | 88 | .06 |
| 14 | 85 | 75 | 80 | 96 | 76 | 92 | .77 |
| 15 | 83 | 72 | 78 | 94 | 76 | 86 | 0 |
| 16 | 83 | 74 | 78 | 96 | 75 | 89 | .45 |
| 17 | 88 | 73 | 80 | 96 | 70 | 88 | .01 |
| 18 | 87 | 73 | 80 | 95 | 72 | 92 | .43 |
| 19 | 90 | 73 | 82 | 93 | 60 | 85 | .01 |
| 20 | 84 | 74 | 79 | 96 | 79 | 92 | .50 |
| 21 | 79 | 72 | 76 | 96 | 84 | 93 | 1.05 |
| 22 | 86 | 76 | 81 | 96 | 75 | 81 | 0 |
| 23 | 85 | 76 | 80 | 89 | 72 | 83 | T |
| 24 | 86 | 72 | 79 | 94 | 73 | 84 | 0 |
| 25 | 87 | 74 | 79 | 93 | 72 | 85 | .01 |
| 26 | 87 | 72 | 80 | 95 | 60 | 86 | 0 |
| 27 | 84 | 73 | 78 | 93 | 70 | 90 | .01 |
| 28 | 84 | 72 | 78 | 94 | 76 | 87 | .08 |
| 29 | 85 | 74 | 78 | 93 | 74 | 76 | 0 |
| 30 | 84 | 72 | 78 | 94 | 75 | 85 | 0 |
| 31 | 87 | 74 | 80 | 93 | 73 | 83 | 0 |
| Sum | 2669 | 2280 | | 2915 | 2256 | | 5.74 |
| Mean | 86.1 | 73.5 | 79.8 | 94.0 | 72.8 | 86.8 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1951 | 13.10 | 1956 | 13.44 |
| 1952 | 14.81 | 1957 | 9.70 |
| 1953 | 14.07 | 1958 | 9.06 |
| 1954 | 14.18 | 1959 | 18.50 |
| 1955 | 6.46 | 1960 | 5.74 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.839
Departure from normal +.013
Highest 29.95 Date 30
Lowest 29.74 Date 11

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.8
Departure from normal +0.6
Highest 91 Date 4
Lowest 70 Date 10

### RAINFALL
(Inches)

Total 5.74
Departure from normal -4.89
Greatest in 24 hours 1.43
Date 20-21

### WIND

Average hourly velocity 5.1 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the S on the 24

### SUNSHINE

Average number hours per day 4.4
Percentage of possible 37

### NUMBER OF DAYS

Clear 0
Partly Cloudy 11
Cloudy 20
.01 inch of rain or more 20
Thunderstorms 11
Light fog 1
Dense fog 1

Number of hours with rain 68

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

LIBRARY

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** NOVEMBER 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 74 | 79 | 91 | 76 | 87 | T |
| 2 | 84 | 75 | 80 | 92 | 74 | 86 | T |
| 3 | 87 | 72 | 80 | 94 | 70 | 86 | .07 |
| 4 | 91 | 73 | 82 | 95 | 67 | 87 | .05 |
| 5 | 89 | 75 | 82 | 92 | 68 | 84 | T |
| 6 | 80 | 72 | 76 | 95 | 83 | 90 | 1.02 |
| 7 | 85 | 72 | 78 | 90 | 78 | 89 | .30 |
| 8 | 86 | 72 | 79 | 94 | 73 | 90 | .20 |
| 9 | 86 | 73 | 80 | 93 | 75 | 89 | .78 |
| 10 | 87 | 73 | 80 | 94 | 74 | 91 | .77 |
| 11 | 86 | 74 | 80 | 95 | 73 | 88 | .01 |
| 12 | 86 | 72 | 79 | 95 | 67 | 89 | .08 |
| 13 | 85 | 73 | 79 | 95 | 74 | 87 | .32 |
| 14 | 86 | 72 | 79 | 97 | 70 | 88 | .39 |
| 15 | 89 | 74 | 82 | 96 | 66 | 88 | .05 |
| 16 | 87 | 74 | 80 | 97 | 70 | 87 | .15 |
| 17 | 89 | 75 | 82 | 94 | 66 | 84 | 0 |
| 18 | 87 | 73 | 82 | 95 | 70 | 92 | 2.84 |
| 19 | 83 | 72 | 78 | 96 | 78 | 92 | .09 |
| 20 | 84 | 73 | 78 | 97 | 78 | 91 | .25 |
| 21 | 85 | 74 | 80 | 96 | 78 | 90 | 0 |
| 22 | 91 | 74 | 82 | 98 | 60 | 87 | .34 |
| 23 | 90 | 73 | 82 | 96 | 70 | 89 | .31 |
| 24 | 92 | 75 | 84 | 97 | 66 | 85 | .05 |
| 25 | 90 | 75 | 82 | 95 | 67 | 87 | .45 |
| 26 | 88 | 74 | 81 | 98 | 71 | 89 | .56 |
| 27 | 89 | 74 | 82 | 96 | 67 | 91 | .27 |
| 28 | 89 | 74 | 82 | 95 | 71 | 91 | .21 |
| 29 | 83 | 72 | 78 | 95 | 82 | 93 | 1.32 |
| 30 | 83 | 73 | 78 | 97 | 78 | 92 | .26 |
| 31 | | | | | | | |
| Sum | 2601 | 2201 | | 2850 | 2160 | | 11.14 |
| Mean | 86.7 | 73.4 | 80.0 | 95.0 | 72.0 | 88.5 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1951 | 8.59 | 1956 | 10.17 |
| 1952 | 10.85 | 1957 | 8.68 |
| 1953 | 6.28 | 1958 | 12.65 |
| 1954 | 13.62 | 1959 | 8.00 |
| 1955 | 15.75 | 1960 | 11.14 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.843
Departure from normal +.025
Highest 30.02 Date 3
Lowest 29.68 Date 25

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.0
Departure from normal +0.8
Highest 92 Date 24
Lowest 72 Date 8

### RAINFALL
(Inches)

Total 11.14
Departure from normal +.91
Greatest in 24 hours 2.86
Date 18-19

### WIND

Average hourly velocity 4.4 mph.
Prevailing direction NW
Maximum for five minutes 16
mph. from the S on the 21

### SUNSHINE

Average number hours per day 4.3
Percentage of possible 37

### NUMBER OF DAYS

Clear 0
Partly Cloudy 12
Cloudy 18
.01 inch of rain or more 25
Thunderstorms 10
Light fog 2
Dense fog 1

Number of hours with rain 82

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Rev. 10-58

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** DECEMBER 1960

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 78 | 74 | 76 | 99 | 97 | 98 | 1.20 |
| 2 | 82 | 73 | 78 | 99 | 80 | 94 | .70 |
| 3 | 85 | 73 | 79 | 98 | 74 | 93 | .35 |
| 4 | 86 | 74 | 80 | 97 | 75 | 91 | .03 |
| 5 | 88 | 76 | 82 | 97 | 70 | 91 | .87 |
| 6 | 86 | 75 | 80 | 97 | 73 | 93 | .36 |
| 7 | 86 | 74 | 80 | 97 | 72 | 86 | .02 |
| 8 | 81 | 73 | 77 | 98 | 79 | 95 | .82 |
| 9 | 84 | 73 | 78 | 98 | 75 | 96 | .83 |
| 10 | 83 | 73 | 78 | 98 | 85 | 95 | .12 |
| 11 | 88 | 74 | 81 | 98 | 70 | 88 | 0 |
| 12 | 81 | 74 | 78 | 97 | 88 | 96 | .72 |
| 13 | 83 | 73 | 78 | 97 | 79 | 93 | .74 |
| 14 | 83 | 72 | 78 | 98 | 78 | 93 | .92 |
| 15 | 84 | 71 | 78 | 97 | 74 | 92 | .14 |
| 16 | 89 | 70 | 80 | 97 | 62 | 85 | 0 |
| 17 | 89 | 71 | 80 | 96 | 57 | 82 | 0 |
| 18 | 90 | 71 | 80 | 96 | 57 | 79 | 0 |
| 19 | 87 | 71 | 79 | 96 | 68 | 86 | .01 |
| 20 | 89 | 71 | 80 | 96 | 60 | 83 | T |
| 21 | 89 | 72 | 80 | 96 | 66 | 86 | .53 |
| 22 | 89 | 72 | 80 | 97 | 60 | 84 | .04 |
| 23 | 88 | 72 | 80 | 95 | 67 | 86 | .03 |
| 24 | 88 | 73 | 80 | 96 | 66 | 85 | .03 |
| 25 | 90 | 73 | 82 | 96 | 55 | 81 | 0 |
| 26 | 90 | 72 | 81 | 95 | 58 | 80 | 0 |
| 27 | 90 | 72 | 81 | 94 | 58 | 78 | 0 |
| 28 | 90 | 70 | 80 | 94 | 55 | 78 | 0 |
| 29 | 91 | 71 | 81 | 95 | 55 | 78 | 0 |
| 30 | 91 | 71 | 81 | 95 | 57 | 79 | 0 |
| 31 | 87 | 72 | 80 | 96 | 66 | 82 | 0 |
| Sum | 2685 | 2246 | | 2995 | 2136 | | 8.46 |
| Mean | 86.6 | 72.5 | 79.6 | 96.6 | 68.9 | 87.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1951 | 4.07 | 1956 | 2.62 |
| 1952 | 13.46 | 1957 | .61 |
| 1953 | 5.23 | 1958 | 2.75 |
| 1954 | 3.80 | 1959 | 8.46 |
| 1955 | 9.96 | 1960 | 8.46 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.867
Departure from normal +.046
Highest 30.01 Date 19
Lowest 29.72 Date 5

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.6
Departure from normal -0.2
Highest 91 Date 30
Lowest 70 Date 28

### RAINFALL
(Inches)

Total 8.46
Departure from normal +3.43
Greatest in 24 hours 1.00
Date 1-2

### WIND

Average hourly velocity 4.8 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the NW on the 4

### SUNSHINE

Average number hours per day 5.5
Percentage of possible 48

### NUMBER OF DAYS

Clear 8
Partly Cloudy 7
Cloudy 16
.01 inch of rain or more 19
Thunderstorms 4
Light fog 1
Dense fog 0
Number of hours [illegible] 97

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# PANAMA CANAL COMPANY

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METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JANUARY 1961

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 72 | 81 | 97 | 60 | 80 | 0 |
| 2 | 90 | 73 | 82 | 96 | 60 | 82 | .40 |
| 3 | 90 | 72 | 81 | 96 | 57 | 79 | 0 |
| 4 | 89 | 72 | 80 | 95 | 62 | 79 | T |
| 5 | 91 | 73 | 82 | 95 | 59 | 79 | 0 |
| 6 | 92 | 73 | 82 | 95 | 60 | 79 | T |
| 7 | 91 | 73 | 82 | 96 | 61 | 82 | .01 |
| 8 | 91 | 72 | 82 | 96 | 62 | 81 | T |
| 9 | 89 | 73 | 81 | 95 | 65 | 85 | .24 |
| 10 | 91 | 74 | 82 | 96 | 56 | 79 | 0 |
| 11 | 91 | 73 | 82 | 92 | 56 | 77 | 0 |
| 12 | 91 | 73 | 82 | 93 | 56 | 77 | 0 |
| 13 | 91 | 73 | 82 | 95 | 61 | 80 | 0 |
| 14 | 92 | 73 | 82 | 95 | 58 | 80 | 0 |
| 15 | 90 | 73 | 82 | 95 | 57 | 78 | 0 |
| 16 | 92 | 72 | 82 | 95 | 56 | 78 | 0 |
| 17 | 92 | 74 | 83 | 93 | 59 | 76 | 0 |
| 18 | 92 | 72 | 82 | 90 | 54 | 74 | 0 |
| 19 | 92 | 72 | 82 | 90 | 56 | 76 | 0 |
| 20 | 90 | 72 | 81 | 92 | 59 | 77 | 0 |
| 21 | 85 | 72 | 78 | 91 | 72 | 85 | T |
| 22 | 90 | 72 | 81 | 94 | 58 | 78 | 0 |
| 23 | 90 | 72 | 81 | 95 | 63 | 79 | .01 |
| 24 | 88 | 74 | 81 | 90 | 63 | 79 | 0 |
| 25 | 93 | 74 | 84 | 91 | 57 | 76 | 0 |
| 26 | 90 | 73 | 82 | 93 | 60 | 79 | 0 |
| 27 | 89 | 72 | 80 | 95 | 63 | 79 | 0 |
| 28 | 90 | 71 | 80 | 94 | 61 | 79 | 0 |
| 29 | 93 | 71 | 82 | 95 | 53 | 78 | 0 |
| 30 | 93 | 72 | 82 | 94 | 51 | 79 | 0 |
| 31 | 91 | 72 | 82 | 94 | 57 | 78 | T |
| Sum | 2809 | 2249 | | 2913 | 1832 | | .66 |
| Mean | 90.6 | 72.5 | 81.6 | 94.0 | 59.1 | 78.9 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1952 | .41 | 1957 | .44 |
| 1953 | 2.66 | 1958 | .79 |
| 1954 | .61 | 1959 | 1.05 |
| 1955 | 4.32 | 1960 | 4.47 |
| 1956 | 2.63 | 1961 | .66 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.853
Departure from normal +.011
Highest 30.00 Date 31
Lowest 29.70 Date 6

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.6
Departure from normal +1.7
Highest 93 Date 29
Lowest 71 Date 29

### RAINFALL
(Inches)

Total .66
Departure from normal - .49
Greatest in 24 hours .40
Date 2

### WIND

Average hourly velocity 7.3 mph.
Prevailing direction NW
Maximum for five minutes 25
mph. from the N on the 22

### SUNSHINE

Average number hours per day 10.5
Percentage of possible 90

### NUMBER OF DAYS

Clear 4
Partly Cloudy 23
Cloudy 4
.01 inch of rain or more 4
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 6

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

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**Station:** BALBOA HEIGHTS, C. Z. **Month:** FEBRUARY 1961

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 71 | 81 | 94 | 53 | 75 | 0 |
| 2 | 89 | 68 | 78 | 94 | 53 | 76 | 0 |
| 3 | 87 | 69 | 78 | 95 | 59 | 81 | T |
| 4 | 86 | 70 | 78 | 94 | 64 | 85 | .42 |
| 5 | 92 | 69 | 80 | 94 | 52 | 77 | 0 |
| 6 | 90 | 70 | 80 | 92 | 58 | 79 | 0 |
| 7 | 89 | 71 | 80 | 93 | 62 | 86 | .18 |
| 8 | 88 | 72 | 80 | 95 | 63 | 79 | .02 |
| 9 | 91 | 69 | 80 | 92 | 50 | 74 | 0 |
| 10 | 90 | 69 | 80 | 92 | 54 | 74 | 0 |
| 11 | 90 | 70 | 80 | 94 | 56 | 75 | 0 |
| 12 | 88 | 71 | 80 | 91 | 58 | 78 | .13 |
| 13 | 91 | 73 | 82 | 92 | 57 | 77 | 0 |
| 14 | 92 | 74 | 83 | 90 | 55 | 75 | 0 |
| 15 | 95 | 72 | 84 | 94 | 54 | 76 | 0 |
| 16 | 92 | 73 | 82 | 92 | 54 | 74 | 0 |
| 17 | 92 | 73 | 82 | 91 | 53 | 73 | 0 |
| 18 | 92 | 73 | 82 | 93 | 55 | 76 | 0 |
| 19 | 91 | 73 | 82 | 92 | 60 | 78 | 0 |
| 20 | 91 | 75 | 83 | 91 | 57 | 77 | 0 |
| 21 | 92 | 75 | 84 | 91 | 51 | 73 | 0 |
| 22 | 93 | 74 | 84 | 91 | 54 | 74 | 0 |
| 23 | 92 | 72 | 82 | 90 | 53 | 73 | 0 |
| 24 | 94 | 72 | 83 | 88 | 49 | 72 | 0 |
| 25 | 93 | 74 | 84 | 89 | 50 | 72 | 0 |
| 26 | 92 | 76 | 84 | 83 | 52 | 70 | 0 |
| 27 | 88 | 75 | 82 | 86 | 59 | 72 | 0 |
| 28 | 91 | 73 | 82 | 91 | 50 | 72 | 0 |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Sum | 2542 | 2016 | | 2564 | 1545 | | .75 |
| Mean | 90.8 | 72.0 | 81.4 | 91.6 | 55.2 | 75.8 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1952 | .11 | 1957 | T |
| 1953 | 2.49 | 1958 | .14 |
| 1954 | .86 | 1959 | 0 |
| 1955 | 2.43 | 1960 | .88 |
| 1956 | 1.22 | 1961 | .75 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.861
Departure from normal +.007
Highest 30.02 Date 4
Lowest 29.70 Date 21

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 81.4
Departure from normal +0.9
Highest 95 Date 15
Lowest 68 Date 2

**RAINFALL**
(Inches)

Total .75
Departure from normal +.12
Greatest in 24 hours .42
Date 4

**WIND**

Average hourly velocity 8.4 mph.
Prevailing direction NW
Maximum for five minutes 25
mph. from the NW on the 28

**SUNSHINE**

Average number hours per day 10.3
Percentage of possible 87

**NUMBER OF DAYS**

Clear 5
Partly Cloudy 15
Cloudy 8
.01 inch of rain or more 4
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 6

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** MARCH 1961

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| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 75 | 84 | 89 | 53 | 76 | 0 |
| 2 | 93 | 76 | 84 | 86 | 51 | 71 | 0 |
| 3 | 94 | 76 | 85 | 87 | 51 | 72 | 0 |
| 4 | 92 | 75 | 84 | 87 | 56 | 75 | 0 |
| 5 | 91 | 76 | 84 | 84 | 52 | 73 | 0 |
| 6 | 91 | 76 | 84 | 88 | 53 | 72 | 0 |
| 7 | 92 | 74 | 83 | 90 | 52 | 73 | 0 |
| 8 | 93 | 74 | 84 | 90 | 51 | 72 | 0 |
| 9 | 91 | 72 | 82 | 90 | 43 | 69 | 0 |
| 10 | 91 | 72 | 82 | 90 | 43 | 67 | T |
| 11 | 89 | 72 | 80 | 85 | 52 | 72 | T |
| 12 | 90 | 71 | 80 | 91 | 54 | 75 | 0 |
| 13 | 90 | 73 | 82 | 91 | 58 | 79 | 0 |
| 14 | 94 | 73 | 82 | 91 | 50 | 75 | 0 |
| 15 | 93 | 73 | 83 | 88 | 51 | 71 | 0 |
| 16 | 88 | 71 | 80 | 90 | 53 | 71 | 0 |
| 17 | 86 | 70 | 78 | 92 | 53 | 75 | 0 |
| 18 | 90 | 71 | 80 | 93 | 55 | 77 | .08 |
| 19 | 93 | 72 | 82 | 91 | 51 | 74 | 0 |
| 20 | 91 | 72 | 82 | 90 | 47 | 72 | 0 |
| 21 | 93 | 71 | 82 | 90 | 45 | 71 | 0 |
| 22 | 94 | 72 | 83 | 90 | 45 | 71 | 0 |
| 23 | 87 | 73 | 80 | 88 | 60 | 75 | .09 |
| 24 | 92 | 72 | 82 | 91 | 55 | 75 | 0 |
| 25 | 93 | 76 | 84 | 84 | 49 | 68 | 0 |
| 26 | 94 | 72 | 83 | 90 | 45 | 68 | 0 |
| 27 | 92 | 73 | 82 | 90 | 52 | 73 | 0 |
| 28 | 89 | 75 | 82 | 90 | 43 | 79 | .03 |
| 29 | 92 | 74 | 83 | 92 | 54 | 77 | T |
| 30 | 91 | 75 | 83 | 90 | 58 | 76 | 0 |
| 31 | 87 | 75 | 81 | 91 | 67 | 83 | 0 |
| Sum | 2828 | 2272 | | 2769 | 1622 | | .20 |
| Mean | 91.2 | 73.3 | 82.2 | 89.3 | 52.3 | 73.4 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1952 | .11 | 1957 | T |
| 1953 | 1.53 | 1958 | T |
| 1954 | .20 | 1959 | T |
| 1955 | .58 | 1960 | .56 |
| 1956 | .40 | 1961 | .20 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.836
Departure from normal -.006
Highest 29.98 Date 10
Lowest 29.68 Date 4

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 82.2
Departure from normal +0.6
Highest 94 Date 14
Lowest 70 Date 17

**RAINFALL**
(Inches)

Total .20
Departure from normal -.44
Greatest in 24 hours .09
Date 23

**WIND**

Average hourly velocity 8.3 mph.
Prevailing direction NW
Maximum for five minutes 28
mph. from the N on the 10

**SUNSHINE**

Average number hours per day 9.5
Percentage of possible 79

**NUMBER OF DAYS**

Clear 8
Partly Cloudy 12
Cloudy 11
.01 inch of rain or more 3
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 4

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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MAY 11 1961
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** [illegible] **Month:** [illegible]

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 75 | 80 | 91 | 72 | 88 | .01 |
| 2 | 90 | 73 | 82 | 92 | 61 | 82 | .82 |
| 3 | 91 | 73 | 82 | 90 | 52 | 73 | 0 |
| 4 | 90 | 73 | 82 | 91 | 56 | 84 | .27 |
| 5 | 88 | 71 | 80 | 91 | 59 | 75 | 0 |
| 6 | 93 | 72 | 82 | 90 | 51 | 70 | 0 |
| 7 | 93 | 75 | 84 | 86 | 50 | 71 | 0 |
| 8 | 91 | 75 | 83 | 90 | 57 | 74 | 0 |
| 9 | 94 | 77 | 86 | 88 | 58 | 74 | 0 |
| 10 | 97 | 77 | 87 | 90 | 47 | 73 | 0 |
| 11 | 95 | 77 | 86 | 90 | 52 | 72 | 0 |
| 12 | 94 | 76 | 85 | 90 | 50 | 74 | 0 |
| 13 | 92 | 74 | 83 | 91 | 54 | 75 | .01 |
| 14 | 93 | 75 | 84 | 89 | 54 | 72 | |
| 15 | 94 | 76 | 85 | 88 | 49 | 70 | 0 |
| 16 | 94 | 74 | 84 | 90 | 52 | 73 | 0 |
| 17 | 92 | 76 | 84 | 91 | 56 | 80 | .04 |
| 18 | 95 | 75 | 85 | 92 | 49 | 72 | 0 |
| 19 | 95 | 78 | 86 | 81 | 47 | 66 | 0 |
| 20 | 95 | 75 | 85 | 87 | 46 | 66 | 0 |
| 21 | 94 | 74 | 84 | 87 | 46 | 68 | 0 |
| 22 | 86 | 73 | 80 | 92 | 67 | 86 | .94 |
| 23 | 90 | 72 | 81 | 92 | 60 | 79 | T |
| 24 | 87 | 75 | 81 | 91 | 64 | 84 | T |
| 25 | 86 | 74 | 80 | 92 | 66 | 85 | T |
| 26 | 87 | 74 | 80 | 91 | 63 | 83 | 0 |
| 27 | 85 | 75 | 80 | 91 | 68 | 85 | T |
| 28 | 90 | 74 | 82 | 91 | 61 | 79 | 0 |
| 29 | 87 | 75 | 81 | 91 | 66 | 80 | T |
| 30 | 89 | 74 | 82 | 90 | 57 | 78 | T |
| 31 | | | | | | | |
| Sum | 2732 | 2237 | | 2696 | 1690 | | 2.09 |
| Mean | 91.1 | 74.6 | 82.8 | 89.9 | 56.3 | 76.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1952 | .58 | 1957 | 1.85 |
| 1953 | .09 | 1958 | 3.01 |
| 1954 | 2.33 | 1959 | 1.46 |
| 1955 | .41 | 1960 | 6.83 |
| 1956 | 2.[illegible] | 1961 | 2.09 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean: 29.831
Departure from normal: +.003
Highest: 29.97 Date: 23
Lowest: 29.71 Date: 15

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean: 82.8
Departure from normal: +0.6
Highest: 97 Date: 10
Lowest: 71 Date: 5

**RAINFALL**
**(Inches)**

Total: 2.09
Departure from normal: -.58
Greatest in 24 hours: .24
Date: 22

**WIND**

Average hourly velocity: 7.0 mph.
Prevailing direction: NW
Maximum for five minutes: 22
mph. from the N on the 18

**SUNSHINE**

Average number hours per day: 7.6
Percentage of possible: 61

**NUMBER OF DAYS**

Clear: 1
Partly Cloudy: 6
Cloudy: 23
.01 inch of rain or more: 6
Thunderstorms: 4
Light fog: 0
Dense fog: 0

Number of hours with rain: 13

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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JUN 13 1961
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** MAY 1961

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 74 | 83 | 90 | 59 | 76 | T |
| 2 | 94 | 75 | 84 | 91 | 56 | 75 | 0 |
| 3 | 95 | 75 | 85 | 91 | 53 | 78 | 1.01 |
| 4 | 91 | 74 | 82 | 91 | 60 | 78 | 0 |
| 5 | 92 | 76 | 84 | 90 | 58 | 78 | .04 |
| 6 | 92 | 75 | 84 | 90 | 55 | 74 | 0 |
| 7 | 94 | 75 | 84 | 91 | 54 | 74 | 0 |
| 8 | 92 | 76 | 84 | 91 | 61 | 79 | T |
| 9 | 92 | 76 | 84 | 91 | 59 | 79 | 0 |
| 10 | 87 | 74 | 80 | 91 | 64 | 87 | .48 |
| 11 | 88 | 74 | 81 | 92 | 65 | 84 | .03 |
| 12 | 92 | 75 | 84 | 91 | 63 | 82 | .54 |
| 13 | 89 | 76 | 82 | 91 | 65 | 86 | .05 |
| 14 | 85 | 75 | 80 | 91 | 70 | 84 | 0 |
| 15 | 88 | 75 | 82 | 91 | 64 | 87 | 2.02 |
| 16 | 88 | 74 | 81 | 91 | 67 | 83 | .15 |
| 17 | 92 | 75 | 84 | 90 | 59 | 76 | T |
| 18 | 89 | 74 | 82 | 90 | 62 | 77 | 0 |
| 19 | 86 | 74 | 80 | 91 | 71 | 83 | .09 |
| 20 | 91 | 74 | 82 | 91 | 63 | 79 | T |
| 21 | 90 | 75 | 82 | 90 | 63 | 81 | .08 |
| 22 | 89 | 75 | 82 | 92 | 66 | 84 | 0 |
| 23 | 91 | 76 | 84 | 92 | 63 | 84 | .11 |
| 24 | 91 | 77 | 84 | 93 | 63 | 80 | .01 |
| 25 | 90 | 77 | 84 | 92 | 64 | 81 | 0 |
| 26 | 89 | 76 | 82 | 94 | 64 | 85 | T |
| 27 | 84 | 77 | 80 | 97 | 80 | 91 | .10 |
| 28 | 91 | 75 | 83 | 96 | 62 | 84 | 0 |
| 29 | 92 | 75 | 84 | 94 | 55 | 80 | 0 |
| 30 | 87 | 76 | 82 | 95 | 63 | 88 | .29 |
| 31 | 86 | 76 | 81 | 96 | 65 | 87 | .02 |
| Sum | 2789 | 2331 | | 2847 | 1936 | | 5.02 |
| Mean | 90.0 | 75.2 | 82.6 | 91.8 | 62.5 | 81.6 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1952 | 15.06 | 1957 | 9.18 |
| 1953 | 8.80 | 1958 | 10.47 |
| 1954 | 8.65 | 1959 | 9.23 |
| 1955 | 6.11 | 1960 | 7.28 |
| 1956 | 10.81 | 1961 | 5.02 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.841
Departure from normal +.017
Highest 29.94 Date 11
Lowest 29.73 Date 8

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.6
Departure from normal +1.7
Highest 95 Date 3
Lowest 74 Date 20

### RAINFALL
(Inches)

Total 5.02
Departure from normal -2.98
Greatest in 24 hours 2.17
Date 16 - 17

### WIND

Average hourly velocity 5.8 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the NW on the 18

### SUNSHINE

Average number hours per day 7.5
Percentage of possible 60

### NUMBER OF DAYS

Clear 0
Partly Cloudy 2
Cloudy 29
.01 inch of rain or more 15
Thunderstorms 11
Light fog 0
Dense fog 0

Number of hours with rain 38

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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JUL 10 1961
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JUNE 1961

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 82 | 95 | 64 | 88 | .38 |
| 2 | 89 | 74 | 82 | 96 | 64 | 87 | .03 |
| 3 | 90 | 77 | 84 | 96 | 64 | 86 | .31 |
| 4 | 87 | 76 | 82 | 96 | 65 | 88 | .06 |
| 5 | 86 | 76 | 81 | 96 | 70 | 90 | .18 |
| 6 | 88 | 75 | 82 | 95 | 66 | 89 | .08 |
| 7 | 77 | 74 | 76 | 96 | 92 | 96 | 1.22 |
| 8 | 83 | 72 | 78 | 97 | 77 | 89 | 0 |
| 9 | 86 | 75 | 80 | 97 | 73 | 87 | .37 |
| 10 | 84 | 74 | 79 | 96 | 78 | 90 | .92 |
| 11 | 80 | 73 | 76 | 97 | 78 | 95 | 1.35 |
| 12 | 77 | 72 | 74 | 98 | 86 | 95 | 3.21 |
| 13 | 83 | 75 | 79 | 97 | 79 | 89 | .04 |
| 14 | 86 | 72 | 79 | 97 | 67 | 88 | 0 |
| 15 | 87 | 75 | 81 | 97 | 70 | 87 | 0 |
| 16 | 87 | 75 | 81 | 95 | 65 | 85 | 0 |
| 17 | 90 | 75 | 82 | 96 | 68 | 88 | 0 |
| 18 | 88 | 74 | 81 | 96 | 66 | 87 | .31 |
| 19 | 90 | 74 | 82 | 96 | 64 | 83 | 0 |
| 20 | 87 | 77 | 82 | 95 | 71 | 86 | T |
| 21 | 83 | 75 | 79 | 96 | 78 | 92 | .01 |
| 22 | 79 | 73 | 76 | 98 | 88 | 93 | .27 |
| 23 | 86 | 71 | 78 | 96 | 71 | 89 | T |
| 24 | 89 | 75 | 82 | 96 | 72 | 89 | .69 |
| 25 | 88 | 74 | 81 | 96 | 71 | 88 | .76 |
| 26 | 89 | 75 | 82 | 96 | 71 | 92 | .06 |
| 27 | 91 | 74 | 82 | 96 | 69 | 89 | 0 |
| 28 | 90 | 75 | 82 | 95 | 73 | 89 | 0 |
| 29 | 85 | 75 | 80 | 95 | 66 | 87 | 0 |
| 30 | 90 | 70 | 80 | 96 | 60 | 82 | .47 |
| 31 | | | | | | | |
| Sum | 2585 | 2226 | | 2884 | 2146 | | 10.72 |
| Mean | 86.2 | 74.2 | 80.2 | 96.1 | 71.5 | 88.8 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1952 | 6.49 | 1957 | 5.71 |
| 1953 | 7.48 | 1958 | 5.50 |
| 1954 | 13.26 | 1959 | 4.57 |
| 1955 | 8.34 | 1960 | 5.36 |
| 1956 | 10.10 | 1961 | 10.72 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.835
Departure from normal +.007
Highest 29.95 Date 30
Lowest 29.72 Date 28

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.2
Departure from normal - 0
Highest 91 Date 27
Lowest 70 Date 30

### RAINFALL
(Inches)

Total 10.72
Departure from normal +2.65
Greatest in 24 hours 3.73
Date 11 - 12

### WIND

Average hourly velocity 4.8 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the S on the 12

### SUNSHINE

Average number hours per day 5.9
Percentage of possible 47

### NUMBER OF DAYS

Clear 0
Partly Cloudy 1
Cloudy 29
.01 inch of rain or more 19
Thunderstorms 16
Light fog 1
Dense fog 1

Number of hours with rain 88

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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WEATHER BUREAU

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JULY 1961

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 75 | 82 | 93 | 73 | 88 | .43 |
| 2 | 89 | 75 | 82 | 95 | 71 | 88 | .05 |
| 3 | 85 | 74 | 80 | 95 | 76 | 92 | .30 |
| 4 | 80 | 72 | 76 | 96 | 81 | 93 | .60 |
| 5 | 85 | 71 | 78 | 96 | 72 | 89 | .10 |
| 6 | 75 | 73 | 74 | 96 | 95 | 96 | 1.71 |
| 7 | 84 | 72 | 78 | 96 | 74 | 88 | 0 |
| 8 | 88 | 74 | 81 | 95 | 73 | 90 | .29 |
| 9 | 84 | 74 | 79 | 95 | 77 | 88 | 0 |
| 10 | 87 | 74 | 80 | 94 | 72 | 88 | .01 |
| 11 | 86 | 74 | 80 | 94 | 74 | 91 | .13 |
| 12 | 86 | 71 | 78 | 94 | 71 | 86 | 0 |
| 13 | 89 | 74 | 82 | 93 | 72 | 90 | .48 |
| 14 | 78 | 72 | 75 | 94 | 85 | 91 | .05 |
| 15 | 84 | 72 | 78 | 95 | 74 | 86 | T |
| 16 | 88 | 73 | 80 | 93 | 70 | 85 | .08 |
| 17 | 84 | 73 | 78 | 95 | 82 | 91 | .01 |
| 18 | 83 | 71 | 77 | 93 | 73 | 86 | 0 |
| 19 | 88 | 73 | 80 | 93 | 72 | 89 | .60 |
| 20 | 83 | 72 | 78 | 93 | 74 | 90 | .02 |
| 21 | 88 | 73 | 80 | 93 | 73 | 86 | 0 |
| 22 | 90 | 74 | 82 | 95 | 70 | 87 | .15 |
| 23 | 90 | 74 | 82 | 92 | 69 | 85 | .61 |
| 24 | 91 | 76 | 84 | 92 | 69 | 84 | .01 |
| 25 | 89 | 76 | 82 | 92 | 73 | 86 | 0 |
| 26 | 89 | 74 | 82 | 92 | 72 | 88 | 1.49 |
| 27 | 88 | 72 | 80 | 94 | 74 | 90 | .52 |
| 28 | 84 | 72 | 78 | 93 | 79 | 90 | 0 |
| 29 | 83 | 72 | 78 | 92 | 80 | 88 | 0 |
| 30 | 89 | 74 | 82 | 93 | 73 | 87 | .06 |
| 31 | 89 | 75 | 82 | 91 | 73 | 88 | .70 |
| Sum | 2666 | 2271 | | 2907 | 2316 | | 8.40 |
| Mean | 86.0 | 73.3 | 79.6 | 93.8 | 74.7 | 88.5 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1952 | 8.49 | 1957 | 10.73 |
| 1953 | 5.30 | 1958 | 6.31 |
| 1954 | 8.25 | 1959 | 5.59 |
| 1955 | 10.06 | 1960 | 5.61 |
| 1956 | 13.08 | 1961 | 8.40 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.851
Departure from normal +.020
Highest 29.96 Date 20
Lowest 29.73 Date 23

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.6
Departure from normal -0.8
Highest 91 Date 24
Lowest 71 Date 12

**RAINFALL**
**(Inches)**

Total 8.40
Departure from normal +.97
Greatest in 24 hours 1.82
Date 26 - 27

**WIND**

Average hourly velocity 3.9 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the NW on the 1

**SUNSHINE**

Average number hours per day 5.8
Percentage of possible 46

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 3
Cloudy 28
.01 inch of rain or more 22
Thunderstorms 18
Light fog 0
Dense fog 0

Number of hours with rain 60

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** Balboa Heights (?) **Month:** Aug (?)

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 75 | 81 | 95 | 70 | 90 | .98 |
| 2 | 87 | 75 | 81 | 95 | 65 | 87 | .03 |
| 3 | 88 | 74 | 81 | 94 | 53 | 78 | T |
| 4 | 88 | 75 | 82 | 93 | 61 | 84 | .06 |
| 5 | 88 | 75 | 82 | 93 | 62 | 86 | .25 |
| 6 | 86 | 74 | 80 | 95 | 65 | 84 | 0 |
| 7 | 81 | 74 | 78 | 93 | 71 | 88 | .36 |
| 8 | 84 | 74 | 79 | 94 | 67 | 86 | .01 |
| 9 | 88 | 74 | 81 | 94 | 59 | 84 | .05 |
| 10 | 92 | 75 | 84 | 94 | 55 | 83 | .34 |
| 11 | 90 | 76 | 83 | 93 | 49 | 79 | .01 |
| 12 | 87 | 75 | 81 | 92 | 63 | 83 | .05 |
| 13 | 84 | 75 | 80 | 93 | 55 | 81 | 0 |
| 14 | 90 | 75 | 82 | 93 | 56 | 79 | .05 |
| 15 | 90 | 74 | 82 | 94 | 56 | 84 | .01 |
| 16 | 90 | 70 | 80 | 95 | 56 | 82 | .78 |
| 17 | 84 | 70 | 77 | 95 | 65 | 86 | 0 |
| 18 | 90 | 74 | 82 | 96 | 61 | 84 | .10 |
| 19 | 90 | 75 | 82 | 96 | 62 | 84 | .09 |
| 20 | 89 | 75 | 82 | 96 | 65 | 88 | .06 |
| 21 | 87 | 74 | 80 | 99 | 63 | 84 | .11 |
| 22 | 90 | 76 | 83 | 97 | 65 | 83 | 0 |
| 23 | 92 | 77 | 84 | 99 | 59 | 84 | T |
| 24 | 88 | 74 | 81 | 97 | 67 | 88 | .40 |
| 25 | 79 | 73 | 76 | 96 | 82 | 93 | .29 |
| 26 | 86 | 72 | 79 | 96 | 62 | 85 | T |
| 27 | 86 | 74 | 80 | 95 | 67 | 85 | 0 |
| 28 | 86 | 74 | 80 | 96 | 70 | 87 | T |
| 29 | 88 | 74 | 81 | 96 | 65 | 85 | .29 |
| 30 | 85 | 74 | 80 | 96 | 67 | 87 | 1.49 |
| 31 | 89 | 73 | 81 | 96 | 60 | 84 | .11 |
| Sum | 2709 | 2299 | | 2946 | 1943 | | 5.92 |
| Mean | 87.4 | 74.2 | 80.8 | 95.0 | 62.7 | 84.6 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1952 | 5.06 | 1957 | 10.06 |
| 1953 | 6.73 | 1958 | 9.65 |
| 1954 | 8.49 | 1959 | 7.62 |
| 1955 | 11.30 | 1960 | 11.74 |
| 1956 | 11.81 | 1961 | 5.92 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.845
Departure from normal +.014
Highest 29.92 Date 12
Lowest 29.73 Date 14

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.8
Departure from normal +0.5
Highest 92 Date 23
Lowest 70 Date 16

**RAINFALL**
**(Inches)**

Total 5.92
Departure from normal -1.88
Greatest in 24 hours 1.57
Date 30-31

**WIND**

Average hourly velocity 4.9 mph.
Prevailing direction NW
Maximum for five minutes 25
mph. from the N on the 16

**SUNSHINE**

Average number hours per day 6.3
Percentage of possible 51

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 4
Cloudy 27
.01 inch of rain or more 22
Thunderstorms 18
Light fog 0
Dense fog 0

Number of hours with rain 59

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** SEPTEMBER 1961

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 80 | 73 | 76 | 97 | 90 | 95 | .30 |
| 2 | 84 | 73 | 78 | 97 | 72 | 88 | .19 |
| 3 | 84 | 73 | 78 | 96 | 67 | 85 | T |
| 4 | 83 | 75 | 79 | 93 | 75 | 84 | .04 |
| 5 | 84 | 75 | 80 | 95 | 71 | 82 | .06 |
| 6 | 85 | 76 | 80 | 93 | 72 | 83 | .01 |
| 7 | 84 | 74 | 79 | 97 | 70 | 87 | .05 |
| 8 | 87 | 74 | 80 | 96 | 65 | 86 | 0 |
| 9 | 87 | 74 | 80 | 96 | 62 | 83 | 0 |
| 10 | 91 | 73 | 82 | 95 | 57 | 82 | 0 |
| 11 | 86 | 75 | 80 | 96 | 71 | 87 | .13 |
| 12 | 87 | 74 | 80 | 96 | 67 | 86 | .61 |
| 13 | 89 | 73 | 81 | 96 | 62 | 91 | 1.49 |
| 14 | 86 | 75 | 80 | 97 | 68 | 90 | .07 |
| 15 | 86 | 73 | 80 | 96 | 68 | 90 | .30 |
| 16 | 81 | 72 | 76 | 96 | 80 | 94 | 1.54 |
| 17 | 86 | 72 | 79 | 97 | 66 | 87 | .02 |
| 18 | 87 | 72 | 80 | 96 | 61 | 85 | 0 |
| 19 | 86 | 73 | 80 | 95 | 68 | 84 | .01 |
| 20 | 85 | 74 | 80 | 97 | 72 | 90 | .10 |
| 21 | 80 | 73 | 76 | 97 | 83 | 95 | .99 |
| 22 | 88 | 72 | 80 | 97 | 61 | 84 | T |
| 23 | 86 | 74 | 80 | 96 | 65 | 88 | .22 |
| 24 | 85 | 73 | 79 | 96 | 72 | 88 | .07 |
| 25 | 89 | 72 | 80 | 96 | 60 | 84 | 0 |
| 26 | 90 | 74 | 82 | 94 | 60 | 84 | 0 |
| 27 | 90 | 74 | 82 | 95 | 63 | 85 | .02 |
| 28 | 80 | 73 | 76 | 96 | 82 | 90 | .19 |
| 29 | 89 | 73 | 81 | 97 | 63 | 89 | .78 |
| 30 | 88 | 73 | 80 | 97 | 68 | 88 | 0 |
| 31 | | | | | | | |
| Sum | 2573 | 2204 | | 2878 | 2061 | | 7.19 |
| Mean | 85.8 | 73.5 | 79.6 | 95.9 | 68.7 | 87.2 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1952 | 5.60 | 1957 | 5.66 |
| 1953 | 7.07 | 1958 | 13.34 |
| 1954 | [illegible] | 1959 | 5.79 |
| 1955 | [illegible] | 1960 | 6.03 |
| 1956 | [illegible] | 1961 | 7.19 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.843
Departure from normal +.018
Highest 29.95 Date 16
Lowest 29.73 Date 5

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 79.6
Departure from normal -0.2
Highest 91 Date 10
Lowest 72 Date 18

**RAINFALL**
(Inches)

Total 7.19
Departure from normal -.66
Greatest in 24 hours 2.08
Date 12 - 13

**WIND**

Average hourly velocity 5.0 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the S on the 4

**SUNSHINE**

Average number hours per day 7.1
Percentage of possible 58

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 8
Cloudy 22
.01 inch of rain or more 21
Thunderstorms 17
Light fog 1
Dense fog 1

Number of hours with rain 65

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** NOVEMBER 1961

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 83 | 72 | 78 | 98 | 74 | 88 | 1.60 |
| 2 | 84 | 71 | 78 | 98 | 70 | 89 | T |
| 3 | 82 | 71 | 76 | 97 | 78 | 90 | .02 |
| 4 | 84 | 72 | 78 | 97 | 72 | 91 | .02 |
| 5 | 86 | 72 | 79 | 97 | 63 | 91 | .96 |
| 6 | 85 | 72 | 78 | 97 | 68 | 90 | .59 |
| 7 | 84 | 72 | 78 | 98 | 71 | 92 | .37 |
| 8 | 83 | 72 | 78 | 98 | 71 | 88 | .55 |
| 9 | 85 | 72 | 78 | 96 | 71 | 84 | T |
| 10 | 82 | 72 | 77 | 98 | 73 | 93 | 1.91 |
| 11 | 82 | 71 | 76 | 98 | 76 | 93 | .01 |
| 12 | 85 | 69 | 77 | 98 | 69 | 88 | 0 |
| 13 | 87 | 72 | 80 | 97 | 70 | 88 | 0 |
| 14 | 86 | 74 | 80 | 97 | 69 | 90 | .02 |
| 15 | 82 | 71 | 76 | 98 | 75 | 93 | .20 |
| 16 | 86 | 72 | 79 | 98 | 68 | 88 | .11 |
| 17 | 86 | 72 | 79 | 97 | 64 | 88 | .34 |
| 18 | 85 | 72 | 78 | 97 | 68 | 90 | .22 |
| 19 | 82 | 72 | 77 | 97 | 78 | 90 | T |
| 20 | 88 | 71 | 78 | 98 | 67 | 90 | .06 |
| 21 | 88 | 73 | 80 | 98 | 61 | 87 | T |
| 22 | 88 | 73 | 80 | 98 | 58 | 84 | T |
| 23 | 82 | 72 | 77 | 96 | 79 | 90 | 0 |
| 24 | 85 | 73 | 79 | 98 | 70 | 91 | .66 |
| 25 | 85 | 72 | 78 | 98 | 69 | 90 | 0 |
| 26 | 80 | 73 | 76 | 98 | 79 | 91 | .09 |
| 27 | 80 | 72 | 76 | 98 | 84 | 95 | .54 |
| 28 | 86 | 72 | 79 | 99 | 72 | 92 | .01 |
| 29 | 81 | 73 | 77 | 98 | 82 | 94 | .21 |
| 30 | 87 | 71 | 78 | 99 | 64 | 85 | T |
| 31 | - | - | - | - | - | - | - |
| Sum | 2529 | 2156 | | 2929 | 2133 | | 8.49 |
| Mean | 84.3 | 71.9 | 78.1 | 97.6 | 71.1 | 89.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1952 | 10.85 | 1957 | 8.68 |
| 1953 | 6.28 | 1958 | 12.65 |
| 1954 | 13.62 | 1959 | 8.00 |
| 1955 | 15.75 | 1960 | 11.14 |
| 1956 | 10.17 | 1961 | 8.49 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.854
Departure from normal +.035
Highest .96 Date 1
Lowest .74 Date 28

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 78.1
Departure from normal -1.1
Highest 88 Date 21
Lowest 69 Date 12

### RAINFALL
(Inches)

Total 8.49
Departure from normal -1.71
Greatest in 24 hours 1.92
Date 10-11

### WIND

Average hourly velocity 4.6 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the S on the 6

### SUNSHINE

Average number hours per day 7.9
Percentage of possible 67

### NUMBER OF DAYS

Clear 0
Partly Cloudy 9
Cloudy 21
.01 inch of rain or more 20
Thunderstorms 6
Light fog 2
Dense fog 1

Number of hours with rain 74

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Climatic

# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

LIBRARY JAN 16 1962 WATER BOARD

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Rec'd. O/C JAN 16 1962

**Station:** Balboa Heights, C. Z. **Month:** Dec bar 1961

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 72 | 80 | 98 | 68 | 91 | .76 |
| 2 | 86 | 71 | 78 | 98 | 68 | 87 | T |
| 3 | 86 | 73 | 80 | 97 | 70 | 88 | 0 |
| 4 | 87 | 74 | 80 | 97 | 71 | 88 | .01 |
| 5 | 89 | 73 | 81 | 97 | 68 | 89 | .08 |
| 6 | 86 | 74 | 80 | 97 | 71 | 91 | .01 |
| 7 | 87 | 75 | 81 | 97 | 71 | 88 | .14 |
| 8 | 89 | 74 | 82 | 97 | 65 | 89 | .45 |
| 9 | 84 | 72 | 78 | 98 | 77 | 96 | .58 |
| 10 | 86 | 73 | 80 | 98 | 72 | 96 | .25 |
| 11 | 83 | 72 | 78 | 98 | 77 | 93 | .96 |
| 12 | 85 | 73 | 79 | 98 | 71 | 88 | T |
| 13 | 86 | 72 | 79 | 98 | 67 | 89 | .01 |
| 14 | 89 | 73 | 81 | 99 | 60 | 85 | .09 |
| 15 | 91 | 73 | 82 | 98 | 60 | 83 | 0 |
| 16 | 91 | 72 | 82 | 98 | 62 | 85 | 0 |
| 17 | 90 | 72 | 81 | 98 | 64 | 84 | 0 |
| 18 | 87 | 73 | 80 | 99 | 66 | 88 | 0 |
| 19 | 88 | 73 | 80 | 99 | 64 | 88 | 0 |
| 20 | 87 | 74 | 80 | 98 | 70 | 87 | 0 |
| 21 | 90 | 73 | 82 | 99 | 62 | 85 | T |
| 22 | 88 | 73 | 80 | 99 | 62 | 92 | .50 |
| 23 | 86 | 73 | 80 | 99 | 68 | 88 | 0 |
| 24 | 90 | 74 | 82 | 98 | 64 | 85 | 0 |
| 25 | 88 | 74 | 81 | 97 | 60 | 81 | 0 |
| 26 | 90 | 73 | 82 | 98 | 59 | 80 | 0 |
| 27 | 91 | 74 | 82 | 98 | 55 | 80 | 0 |
| 28 | 90 | 70 | 80 | 97 | 50 | 79 | 0 |
| 29 | 90 | 72 | 81 | 97 | 52 | 79 | 0 |
| 30 | 89 | 72 | 80 | 98 | 57 | 79 | 0 |
| 31 | 90 | 73 | 82 | 97 | 52 | 78 | 0 |
| Sum | 2726 | 2229 | | 3034 | 1997 | | 4.74 |
| Mean | 87.9 | 72.9 | 80.4 | 97.9 | 64.4 | 86.5 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1952 | 13.46 | 1957 | .61 |
| 1953 | 5.23 | 1958 | 2.75 |
| 1954 | 3.80 | 1959 | 8.46 |
| 1955 | 9.96 | 1960 | 8.46 |
| 1956 | 2.62 | 1961 | 4.74 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.864
Departure from normal +.022
Highest 29.96 Date 31
Lowest 29.72 Date 27

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.4
Departure from normal +0.6
Highest 91 Date 15
Lowest 70 Date 28

### RAINFALL
(Inches)

Total 4.74
Departure from normal -.28
Greatest in 24 hours 1.07
Date 10 - 11

### WIND

Average hourly velocity 4.6 mph.
Prevailing direction NW
Maximum for five minutes 26
mph. from the NW on the 1st

### SUNSHINE

Average number hours per day 7.7
Percentage of possible 66

### NUMBER OF DAYS

Clear 4
Partly Cloudy 15
Cloudy 12
.01 inch of rain or more 12
Thunderstorms 11
Light fog 1
Dense fog 1

Number of hours with rain 36

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights **Month:** January 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 71 | 80 | 96 | 58 | 79 | 0 |
| 2 | 84 | 72 | 78 | 97 | 71 | 90 | .01 |
| 3 | 90 | 71 | 80 | 98 | 52 | 79 | 0 |
| 4 | 89 | 72 | 80 | 98 | 57 | 82 | T |
| 5 | 88 | 73 | 80 | 98 | 64 | 86 | .07 |
| 6 | 90 | 73 | 82 | 98 | 56 | 82 | 0 |
| 7 | 90 | 71 | 80 | 98 | 57 | 81 | 0 |
| 8 | 90 | 73 | 82 | 96 | 51 | 76 | 0 |
| 9 | 90 | 71 | 80 | 97 | 52 | 77 | 0 |
| 10 | 90 | 70 | 80 | 98 | 45 | 74 | 0 |
| 11 | 88 | 70 | 79 | 98 | 55 | 79 | 0 |
| 12 | 90 | 71 | 80 | 98 | 51 | 78 | 0 |
| 13 | 89 | 71 | 80 | 95 | 58 | 81 | 0 |
| 14 | 90 | 72 | 81 | 97 | 57 | 80 | T |
| 15 | 90 | 72 | 81 | 97 | 52 | 79 | 0 |
| 16 | 91 | 73 | 82 | 97 | 51 | 76 | 0 |
| 17 | 90 | 73 | 82 | 96 | 58 | 80 | 0 |
| 18 | 90 | 74 | 82 | 97 | 58 | 85 | .03 |
| 19 | 86 | 74 | 80 | 98 | 70 | 91 | .38 |
| 20 | 90 | 73 | 82 | 99 | 61 | 83 | 0 |
| 21 | 90 | 74 | 82 | 98 | 56 | 84 | .11 |
| 22 | 89 | 74 | 82 | 97 | 56 | 79 | 0 |
| 23 | 90 | 73 | 82 | 97 | 53 | 77 | 0 |
| 24 | 88 | 73 | 80 | 99 | 54 | 77 | 0 |
| 25 | 92 | 71 | 82 | 95 | 52 | 76 | 0 |
| 26 | 90 | 72 | 81 | 97 | 57 | 78 | 0 |
| 27 | 91 | 73 | 82 | 98 | 51 | 76 | 0 |
| 28 | 91 | 74 | 82 | 94 | 52 | 74 | 0 |
| 29 | 90 | 73 | 82 | 92 | 51 | 75 | 0 |
| 30 | 88 | 74 | 81 | 95 | 53 | 75 | 0 |
| 31 | 90 | 71 | 80 | 92 | 50 | 76 | 0 |
| Sum | 2773 | 2244 | | 3000 | 1719 | | .60 |
| Mean | 89.5 | 72.4 | 81.0 | 96.8 | 55.5 | 79.6 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1953 | 2.66 | 1958 | .79 |
| 1954 | .61 | 1959 | 1.05 |
| 1955 | 4.32 | 1960 | 4.47 |
| 1956 | 2.63 | 1961 | .66 |
| 1957 | .44 | 1962 | .60 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.869
Departure from normal: +.026
Highest: 29.98 Date: 2
Lowest: 29.74 Date: 18

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 81.0
Departure from normal: +1.0
Highest: 92 Date: 25
Lowest: 70 Date: 11

### RAINFALL
(Inches)

Total: .60
Departure from normal: -.54
Greatest in 24 hours: .41
Date: 18 - 19

### WIND

Average hourly velocity: 6.8 mph.
Prevailing direction: NW
Maximum for five minutes: 25
mph. from the N on the 30

### SUNSHINE

Average number hours per day: 10.7
Percentage of possible: 92

### NUMBER OF DAYS

Clear: 8
Partly Cloudy: 21
Cloudy: 2
.01 inch of rain or more: 5
Thunderstorms: 0
Light fog: 0
Dense fog: 0

Number of hours with rain: 7

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** FEBRUARY 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 71 | 80 | 93 | 49 | 73 | 0 |
| 2 | 90 | 70 | 80 | 95 | 49 | 74 | 0 |
| 3 | 88 | 70 | 79 | 97 | 52 | 78 | 0 |
| 4 | 89 | 72 | 80 | 96 | 55 | 80 | .05 |
| 5 | 90 | 72 | 81 | 98 | 50 | 76 | 0 |
| 6 | 90 | 70 | 80 | 97 | 49 | 76 | 0 |
| 7 | 90 | 71 | 80 | 97 | 52 | 79 | T |
| 8 | 90 | 72 | 81 | 98 | 50 | 76 | 0 |
| 9 | 93 | 70 | 82 | 98 | 47 | 77 | 0 |
| 10 | 90 | 70 | 80 | 98 | 51 | 80 | 0 |
| 11 | 91 | 70 | 80 | 99 | 47 | 78 | 0 |
| 12 | 92 | 71 | 82 | 98 | 47 | 73 | 0 |
| 13 | 92 | 70 | 81 | 97 | 48 | 74 | 0 |
| 14 | 88 | 70 | 79 | 98 | 53 | 77 | 0 |
| 15 | 91 | 71 | 81 | 100 | 51 | 76 | 0 |
| 16 | 89 | 71 | 80 | 98 | 54 | 77 | 0 |
| 17 | 89 | 73 | 81 | 97 | 58 | 79 | 0 |
| 18 | 91 | 76 | 84 | 97 | 59 | 82 | 0 |
| 19 | 91 | 76 | 84 | 98 | 56 | 78 | 0 |
| 20 | 93 | 75 | 84 | 95 | 53 | 75 | 0 |
| 21 | 94 | 75 | 84 | 98 | 48 | 73 | 0 |
| 22 | 93 | 74 | 84 | 93 | 48 | 71 | 0 |
| 23 | 94 | 74 | 84 | 88 | 47 | 70 | 0 |
| 24 | 92 | 74 | 83 | 94 | 49 | 73 | 0 |
| 25 | 92 | 75 | 84 | 91 | 46 | 72 | 0 |
| 26 | 92 | 73 | 82 | 92 | 47 | 72 | 0 |
| 27 | 93 | 72 | 82 | 95 | 45 | 72 | 0 |
| 28 | 93 | 73 | 83 | 92 | 46 | 70 | 0 |
| 29 | — | — | — | — | — | — | — |
| 30 | — | — | — | — | — | — | — |
| 31 | — | — | — | — | — | — | — |
| Sum | 2550 | 2021 | | 2687 | 1406 | | .05 |
| Mean | 91.1 | 72.2 | 81.6 | 96.0 | 50.2 | 75.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1953 | 2.49 | 1958 | .14 |
| 1954 | .86 | 1959 | 0 |
| 1955 | 2.43 | 1960 | .88 |
| 1956 | 1.22 | 1961 | .75 |
| 1957 | T | 1962 | .05 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.867
Departure from normal +.012
Highest 30.02 Date 7
Lowest 29.72 Date 22

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 81.6
Departure from normal + 1.1
Highest 94 Date 23
Lowest 70 Date 13

**RAINFALL**
(Inches)

Total .05
Departure from normal -.57
Greatest in 24 hours .05
Date 4

**WIND**

Average hourly velocity 8.2 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the N on the 21

**SUNSHINE**

Average number hours per day 11.2
Percentage of possible 94

**NUMBER OF DAYS**

Clear 11
Partly Cloudy 17
Cloudy 0
.01 inch of rain or more 1
Thunderstorms 0
Light fog 0
Dense fog 0
Number of hours with rain 1

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** March 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 72 | 82 | 93 | 48 | 70 | |
| 2 | 91 | 72 | 82 | 93 | 48 | 71 | |
| 3 | 90 | 71 | 80 | 94 | 50 | 73 | |
| 4 | 92 | 71 | 82 | 95 | 47 | 74 | |
| 5 | 92 | 72 | 82 | 95 | 47 | 73 | |
| 6 | 92 | 72 | 82 | 94 | 39 | 69 | |
| 7 | 92 | 72 | 82 | 90 | 41 | 69 | |
| 8 | 90 | 73 | 82 | 91 | 47 | 70 | |
| 9 | 91 | 69 | 80 | 96 | 47 | 72 | |
| 10 | 90 | 72 | 81 | 92 | 50 | 72 | |
| 11 | 92 | 76 | 84 | 94 | 52 | 77 | T |
| 12 | 94 | 76 | 85 | 93 | 50 | 73 | T |
| 13 | 91 | 74 | 82 | 96 | 49 | 77 | |
| 14 | 92 | 74 | 83 | 96 | 49 | 73 | |
| 15 | 94 | 74 | 84 | 94 | 49 | 73 | |
| 16 | 95 | 74 | 84 | 93 | 42 | 68 | |
| 17 | 90 | 77 | 84 | 87 | 53 | 71 | |
| 18 | 92 | 74 | 83 | 91 | 46 | 69 | |
| 19 | 94 | 73 | 84 | 93 | 45 | 70 | |
| 20 | 90 | 72 | 81 | 95 | 49 | 74 | |
| 21 | 90 | 72 | 81 | 94 | 54 | 77 | |
| 22 | 86 | 73 | 80 | 97 | 55 | 84 | .08 |
| 23 | 85 | 72 | 78 | 92 | 65 | 84 | |
| 24 | 83 | 75 | 79 | 92 | 70 | 85 | |
| 25 | 86 | 74 | 80 | 94 | 60 | 83 | |
| 26 | 90 | 73 | 82 | 96 | 56 | 80 | .07 |
| 27 | 92 | 72 | 82 | 96 | 45 | 70 | |
| 28 | 92 | 75 | 84 | 80 | 47 | 66 | T |
| 29 | 93 | 73 | 83 | 85 | 50 | 70 | |
| 30 | 93 | 78 | 86 | 81 | 53 | 71 | |
| 31 | 92 | 76 | 84 | 91 | 52 | 78 | .02 |
| Sum | 2817 | 2273 | | 2863 | 1555 | | .17 |
| Mean | 90.9 | 73.3 | 82.1 | 92.4 | 50.2 | 73.8 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1953 | 1.53 | 1958 | T |
| 1954 | .20 | 1959 | T |
| 1955 | .58 | 1960 | .56 |
| 1956 | .40 | 1961 | .29 |
| 1957 | T | 1962 | .17 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.859
Departure from normal +0.017
Highest 29.98 Date 8
Lowest 29.72 Date 15

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 82.1
Departure from normal + 0.5
Highest 95 Date 16
Lowest 69 Date 9

**RAINFALL**
(Inches)

Total .17
Departure from normal -.46
Greatest in 24 hours .08
Date 22

**WIND**

Average hourly velocity 7.5 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the N on the 17

**SUNSHINE**

Average number hours per day 10.0
Percentage of possible 83

**NUMBER OF DAYS**

Clear 3
Partly Cloudy 17
Cloudy 11
.01 inch of rain or more 3
Thunderstorms 0
Light fog 0
Dense fog 0
Number of hours with rain 5

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** April 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 74 | 83 | 96 | 49 | 75 | T |
| 2 | 92 | 74 | 83 | 94 | 53 | 74 | T |
| 3 | 92 | 76 | 84 | 82 | 51 | 68 | |
| 4 | 94 | 74 | 84 | 86 | 45 | 67 | |
| 5 | 93 | 75 | 84 | 85 | 43 | 66 | |
| 6 | 91 | 74 | 82 | 92 | 52 | 76 | .10 |
| 7 | 89 | 75 | 82 | 95 | 62 | 83 | |
| 8 | 93 | 75 | 84 | 96 | 54 | 80 | .03 |
| 9 | 92 | 76 | 84 | 93 | 51 | 74 | |
| 10 | 95 | 76 | 86 | 90 | 44 | 70 | |
| 11 | 94 | 76 | 85 | 92 | 49 | 71 | |
| 12 | 92 | 76 | 84 | 91 | 55 | 73 | |
| 13 | 93 | 74 | 84 | 94 | 49 | 73 | |
| 14 | 94 | 74 | 84 | 91 | 44 | 69 | |
| 15 | 94 | 75 | 84 | 90 | 45 | 70 | |
| 16 | 93 | 74 | 84 | 92 | 50 | 72 | |
| 17 | 92 | 76 | 84 | 90 | 55 | 73 | |
| 18 | 88 | 76 | 82 | 94 | 59 | 75 | T |
| 19 | 93 | 75 | 84 | 86 | 47 | 70 | |
| 20 | 91 | 76 | 84 | 94 | 54 | 76 | |
| 21 | 89 | 74 | 82 | 97 | 58 | 82 | T |
| 22 | 86 | 74 | 80 | 97 | 65 | 87 | .05 |
| 23 | 89 | 74 | 82 | 97 | 62 | 88 | T |
| 24 | 90 | 74 | 82 | 98 | 58 | 79 | .06 |
| 25 | 88 | 76 | 82 | 98 | 62 | 89 | .19 |
| 26 | 87 | 73 | 80 | 98 | 62 | 84 | T |
| 27 | 89 | 72 | 80 | 96 | 55 | 82 | T |
| 28 | 92 | 73 | 82 | 97 | 52 | 76 | |
| 29 | 92 | 71 | 82 | 97 | 52 | 74 | |
| 30 | 94 | 73 | 84 | 95 | 49 | 73 | |
| 31 | — | — | — | — | — | — | — |
| Sum | 2743 | 2235 | | 2793 | 1586 | | .43 |
| Mean | 91.4 | 74.5 | 83.0 | 93.1 | 52.9 | 75.6 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1953 | .07 | 1958 | 3.01 |
| 1954 | 3.33 | 1959 | 1.46 |
| 1955 | .41 | 1960 | [illegible] |
| 1956 | 2.23 | 1961 | 1.09 |
| 1957 | 1.85 | 1962 | .43 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.847
Departure from normal +0.018
Highest 29.96 Date 3
Lowest 29.72 Date 11

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 83.0
Departure from normal +0.8
Highest 95 Date 10
Lowest 71 Date 29

**RAINFALL**
(Inches)

Total .43
Departure from normal -2.20
Greatest in 24 hours .19
Date 25

**WIND**

Average hourly velocity 7.1 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the N on the 3

**SUNSHINE**

Average number hours per day 9.1
Percentage of possible 74

**NUMBER OF DAYS**

Clear 3
Partly Cloudy 9
Cloudy 18
.01 inch of rain or more 5
Thunderstorms 5
Light fog 0
Dense fog 0
Number of hours with rain 13

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** Balboa Heights, C.Z. **Month:** May, 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 73 | 82 | 96 | 53 | 74 | |
| 2 | 85 | 75 | 80 | 91 | 64 | 79 | |
| 3 | 91 | 73 | 82 | 96 | 57 | 77 | .02 |
| 4 | 94 | 73 | 84 | 95 | 49 | 77 | .03 |
| 5 | 88 | 75 | 82 | 96 | 61 | 84 | .11 |
| 6 | 93 | 73 | 83 | 96 | 48 | 73 | T |
| 7 | 91 | 74 | 82 | 95 | 53 | 73 | T |
| 8 | 86 | 75 | 80 | 95 | 66 | 85 | .33 |
| 9 | 84 | 75 | 80 | 97 | 72 | 89 | .04 |
| 10 | 86 | 75 | 80 | 97 | 65 | 87 | .03 |
| 11 | 90 | 75 | 82 | 95 | 63 | 88 | .14 |
| 12 | 89 | 76 | 82 | 97 | 61 | 80 | |
| 13 | 87 | 75 | 81 | 94 | 62 | 82 | |
| 14 | 88 | 75 | 82 | 97 | 66 | 87 | .64 |
| 15 | 86 | 74 | 80 | 97 | 65 | 89 | .10 |
| 16 | 86 | 74 | 80 | 97 | 67 | 85 | |
| 17 | 84 | 73 | 78 | 94 | 65 | 83 | |
| 18 | 86 | 75 | 80 | 97 | 63 | 85 | .02 |
| 19 | 86 | 73 | 80 | 96 | 67 | 85 | T |
| 20 | 87 | 75 | 81 | 96 | 66 | 87 | .30 |
| 21 | 92 | 74 | 83 | 97 | 59 | 83 | .05 |
| 22 | 90 | 75 | 82 | 98 | 62 | 84 | .03 |
| 23 | 88 | 77 | 82 | 95 | 63 | 84 | .29 |
| 24 | 85 | 76 | 80 | 97 | 75 | 87 | T |
| 25 | 88 | 74 | 81 | 99 | 69 | 90 | .21 |
| 26 | 91 | 76 | 84 | 97 | 62 | 90 | .56 |
| 27 | 81 | 70 | 80 | 99 | 82 | 95 | 2.49 |
| 28 | 81 | 70 | 80 | 98 | 73 | 90 | .02 |
| 29 | 86 | 73 | 80 | 97 | 67 | 86 | .02 |
| 30 | 89 | 74 | 82 | 98 | 65 | 88 | T |
| 31 | 88 | 75 | 82 | 97 | 70 | 89 | .11 |
| Sum | 2716 | 2300 | | 2986 | 1980 | | 5.54 |
| Mean | 87.6 | 74.2 | 80.9 | 96.3 | 63.9 | 84.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1953 | 8.80 | 1958 | 10.47 |
| 1954 | 8.65 | 1959 | 9.23 |
| 1955 | 6.31 | 1960 | 7.28 |
| 1956 | 10.81 | 1961 | 5.02 |
| 1957 | 9.18 | 1962 | 5.54 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.853
Departure from normal +0.029
Highest 29.95 Date 4
Lowest 29.73 Date 16

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 80.9
Departure from normal 0
Highest 94 Date 4
Lowest 70 Date 28

**RAINFALL**
(Inches)

Total 5.54
Departure from normal -2.42
Greatest in 24 hours 2.89
Date 26-27

**WIND**

Average hourly velocity 5.6 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the NW on the 5

**SUNSHINE**

Average number hours per day 7.0
Percentage of possible 56

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 5
Cloudy 26
.01 inch of rain or more 20
Thunderstorms 14
Light fog 0
Dense fog 0
Number of hours with rain 48

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** June 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 76 | 82 | 97 | 69 | 89 | T |
| 2 | 88 | 77 | 82 | 98 | 73 | 91 | .16 |
| 3 | 86 | 76 | 81 | 98 | 76 | 92 | .16 |
| 4 | 84 | 76 | 80 | 98 | 68 | 88 | .03 |
| 5 | 87 | 74 | 80 | 99 | 67 | 90 | 2.56 |
| 6 | 78 | 73 | 76 | 99 | 91 | 98 | .70 |
| 7 | 84 | 70 | 77 | 99 | 72 | 88 | |
| 8 | 85 | 73 | 78 | 100 | 72 | 90 | .49 |
| 9 | 81 | 74 | 78 | 98 | 81 | 94 | .68 |
| 10 | 86 | 73 | 80 | 99 | 72 | 91 | .11 |
| 11 | 89 | 73 | 82 | 98 | 67 | 86 | |
| 12 | 86 | 76 | 81 | 98 | 72 | 88 | |
| 13 | 87 | 74 | 80 | 99 | 71 | 88 | T |
| 14 | 86 | 77 | 82 | 95 | 68 | 85 | .03 |
| 15 | 84 | 75 | 80 | 99 | 77 | 88 | T |
| 16 | 84 | 73 | 78 | 100 | 73 | 89 | .12 |
| 17 | 85 | 73 | 80 | 96 | 78 | 88 | |
| 18 | 82 | 73 | 78 | 100 | 78 | 96 | .58 |
| 19 | 87 | 74 | 80 | 100 | 66 | 88 | T |
| 20 | 87 | 73 | 80 | 100 | 68 | 89 | .81 |
| 21 | 84 | 73 | 78 | 100 | 76 | 93 | .35 |
| 22 | 85 | 74 | 80 | 100 | 76 | 93 | T |
| 23 | 85 | 73 | 78 | 100 | 67 | 88 | .08 |
| 24 | 87 | 74 | 80 | 93 | 62 | 89 | 2.47 |
| 25 | 79 | 74 | 76 | 98 | 76 | 91 | .41 |
| 26 | 84 | 72 | 78 | 96 | 68 | 82 | .03 |
| 27 | 82 | 73 | 78 | 96 | 77 | 91 | .14 |
| 28 | 91 | 74 | 82 | 96 | 57 | 80 | .01 |
| 29 | 88 | 74 | 81 | 93 | 61 | 80 | |
| 30 | 84 | 74 | 80 | 95 | 74 | 88 | .35 |
| 31 | | | | | | | |
| Sum | 2550 | 2220 | | 2939 | 2153 | | |
| Mean | 85.0 | 74.3 | 79.6 | 98.0 | 71.8 | 89.2 | 10.20 |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1953 | 7.48 | 1958 | 5.50 |
| 1954 | 13.86 | 1959 | 4.37 |
| 1955 | 8.34 | 1960 | 5.36 |
| 1956 | 10.10 | 1961 | 10.72 |
| 1957 | 5.31 | 1962 | 10.20 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.854
Departure from normal: +.025
Highest: 29.95 Date: 18
Lowest: 29.75 Date: 12

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 79.6
Departure from normal: - 0.6
Highest: 91 Date: 28
Lowest: 70 Date: 7

### RAINFALL
(Inches)

Total: 10.20
Departure from normal: +2.10
Greatest in 24 hours: 3.26
Date: 5 - 6

### WIND

Average hourly velocity: 4.0 mph.
Prevailing direction: NW
Maximum for five minutes: 22
mph. from the: W on the: 4

### SUNSHINE

Average number hours per day: 6.6
Percentage of possible: 52

### NUMBER OF DAYS

Clear: 0
Partly Cloudy: 2
Cloudy: 28
.01 inch of rain or more: 19
Thunderstorms: 10
Light fog: 0
Dense fog: 0
Number of hours with rain: 79

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C.Z. **Month:** JULY 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 74 | 79 | 95 | 70 | 86 | |
| 2 | 89 | 75 | 82 | 95 | 60 | 86 | .26 |
| 3 | 83 | 74 | 78 | 97 | 77 | 90 | .77 |
| 4 | 81 | 74 | 78 | 97 | 80 | 91 | .01 |
| 5 | 86 | 72 | 79 | 97 | 65 | 86 | .01 |
| 6 | 88 | 73 | 80 | 96 | 63 | 91 | .39 |
| 7 | 84 | 71 | 78 | 97 | 76 | 89 | |
| 8 | 89 | 74 | 82 | 97 | 62 | 82 | .13 |
| 9 | 87 | 75 | 81 | 94 | 68 | 86 | .30 |
| 10 | 88 | 75 | 82 | 97 | 68 | 87 | .32 |
| 11 | 89 | 75 | 82 | 96 | 64 | 88 | .26 |
| 12 | 88 | 76 | 82 | 96 | 64 | 86 | |
| 13 | 88 | 75 | 82 | 95 | 69 | 87 | .26 |
| 14 | 83 | 75 | 79 | 96 | 72 | 88 | .10 |
| 15 | 86 | 74 | 80 | 96 | 63 | 92 | .42 |
| 16 | 88 | 74 | 81 | 96 | 60 | 85 | .04 |
| 17 | 92 | 74 | 83 | 96 | 55 | 79 | .04 |
| 18 | 84 | 74 | 79 | 95 | 72 | 88 | .04 |
| 19 | 88 | 73 | 80 | 96 | 64 | 87 | .03 |
| 20 | 83 | 74 | 78 | 95 | 77 | 92 | .05 |
| 21 | 89 | 74 | 82 | 96 | 62 | 88 | .10 |
| 22 | 85 | 75 | 80 | 97 | 76 | 89 | |
| 23 | 87 | 75 | 81 | 96 | 66 | 85 | |
| 24 | 88 | 73 | 80 | 95 | 63 | 87 | .43 |
| 25 | 79 | 74 | 76 | 96 | 85 | 93 | .32 |
| 26 | 87 | 72 | 80 | 95 | 68 | 93 | .57 |
| 27 | 87 | 73 | 80 | 96 | 69 | 89 | .06 |
| 28 | 84 | 74 | 79 | 97 | 74 | 92 | .72 |
| 29 | 84 | 74 | 79 | 98 | 79 | 92 | .06 |
| 30 | 91 | 74 | 82 | 96 | 66 | 84 | |
| 31 | 92 | 74 | 83 | 95 | 63 | 80 | T |
| Sum | 2681 | 2293 | | 2976 | 2120 | | 5.69 |
| Mean | 86.5 | 74.0 | 80.2 | 96.0 | 68.4 | 87.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1953 | 5.30 | 1958 | 6.31 |
| 1954 | 8.25 | 1959 | 5.59 |
| 1955 | 10.06 | 1960 | 5.61 |
| 1956 | 13.08 | 1961 | 8.40 |
| 1957 | 10.73 | 1962 | 5.69 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.843
Departure from normal: +.012
Highest: 29.94 Date: 28
Lowest: 29.75 Date: 9

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 80.2
Departure from normal: -0.2
Highest: 92 Date: 17
Lowest: 71 Date: 7

### RAINFALL
(Inches)

Total: 5.69
Departure from normal: -1.72
Greatest in 24 hours: .90
Date: 2-3

### WIND

Average hourly velocity: 4.8 mph.
Prevailing direction: NW
Maximum for five minutes: 18
mph. from the: S on the: 6

### SUNSHINE

Average number hours per day: 6.0
Percentage of possible: 47

### NUMBER OF DAYS

Clear: 0
Partly Cloudy: 2
Cloudy: 29
.01 inch of rain or more: 24
Thunderstorms: 14
Light fog: 0
Dense fog: 0

Number of hours with rain: 70

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** August 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 75 | 82 | 95 | 63 | 81 | 0 |
| 2 | 89 | 74 | 82 | 95 | 66 | 83 | 0 |
| 3 | 88 | 73 | 80 | 95 | 68 | 89 | .65 |
| 4 | 85 | 74 | 80 | 96 | 70 | 91 | .13 |
| 5 | 86 | 74 | 80 | 97 | 70 | 88 | .01 |
| 6 | 86 | 73 | 80 | 96 | 70 | 91 | .20 |
| 7 | 88 | 73 | 80 | 96 | 68 | 93 | .82 |
| 8 | 86 | 73 | 80 | 97 | 67 | 90 | .04 |
| 9 | 81 | 71 | 76 | 95 | 75 | 89 | .02 |
| 10 | 91 | 71 | 81 | 95 | 60 | 82 | 0 |
| 11 | 91 | 73 | 82 | 94 | 56 | 87 | .56 |
| 12 | 86 | 70 | 78 | 98 | 65 | 87 | 1.77 |
| 13 | 86 | 72 | 79 | 95 | 67 | 87 | T |
| 14 | 84 | 73 | 78 | 95 | 71 | 88 | .03 |
| 15 | 88 | 73 | 80 | 95 | 64 | 89 | .13 |
| 16 | 85 | 71 | 78 | 96 | 72 | 86 | 0 |
| 17 | 87 | 73 | 80 | 95 | 68 | 86 | .02 |
| 18 | 85 | 73 | 79 | 95 | 76 | 90 | .37 |
| 19 | 86 | 73 | 80 | 96 | 70 | 89 | .12 |
| 20 | 85 | 73 | 79 | 97 | 68 | 88 | .12 |
| 21 | 89 | 72 | 80 | 95 | 60 | 84 | T |
| 22 | 90 | 74 | 82 | 95 | 62 | 87 | .15 |
| 23 | 88 | 73 | 80 | 95 | 66 | 89 | .20 |
| 24 | 88 | 74 | 81 | 96 | 65 | 86 | 0 |
| 25 | 89 | 74 | 82 | 95 | 65 | 90 | .02 |
| 26 | 87 | 72 | 80 | 97 | 68 | 87 | T |
| 27 | 82 | 73 | 78 | 95 | 75 | 88 | .16 |
| 28 | 81 | 72 | 76 | 96 | 79 | 88 | .12 |
| 29 | 84 | 71 | 78 | 97 | 72 | 87 | .59 |
| 30 | 88 | 72 | 80 | 94 | 60 | 85 | 0 |
| 31 | 90 | 72 | 81 | 94 | 63 | 83 | .20 |
| Sum | 2689 | 2254 | | 2961 | 2089 | | 6.43 |
| Mean | 86.7 | 72.7 | 79.7 | 95.5 | 67.4 | 87.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1953 | 6.73 | 1958 | 9.65 |
| 1954 | 8.49 | 1959 | 7.62 |
| 1955 | 11.30 | 1960 | 11.74 |
| 1956 | 11.51 | 1961 | 5.92 |
| 1957 | 10.06 | 1962 | 6.43 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.871
Departure from normal +.040
Highest 29.96 Date 5
Lowest 29.75 Date 31

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 79.7
Departure from normal -0.6
Highest 91 Date 11
Lowest 70 Date 12

**RAINFALL**
(Inches)

Total 6.43
Departure from normal -1.35
Greatest in 24 hours 2.33
Date 11 - 12

**WIND**

Average hourly velocity 4.2 mph.
Prevailing direction NW
Maximum for five minutes 25
mph. from the N on the 7

**SUNSHINE**

Average number hours per day 6.5
Percentage of possible 52

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 5
Cloudy 26
.01 inch of rain or more 22
Thunderstorms 17
Light fog 1
Dense fog 0

Number of hours with rain 74

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** September 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 73 | 79 | 95 | 76 | 90 | .11 |
| 2 | 88 | 73 | 80 | 95 | 67 | 86 | 0 |
| 3 | 89 | 74 | 82 | 97 | 68 | 89 | .09 |
| 4 | 83 | 73 | 78 | 95 | 78 | 89 | 0 |
| 5 | 89 | 73 | 81 | 95 | 61 | 84 | .02 |
| 6 | 86 | 73 | 80 | 94 | 68 | 86 | 0 |
| 7 | 89 | 74 | 82 | 95 | 63 | 84 | 0 |
| 8 | 90 | 74 | 82 | 95 | 63 | 88 | .02 |
| 9 | 86 | 73 | 80 | 96 | 78 | 88 | .01 |
| 10 | 89 | 73 | 81 | 95 | 65 | 90 | .55 |
| 11 | 88 | 73 | 80 | 96 | 64 | 84 | .01 |
| 12 | 85 | 73 | 79 | 94 | 73 | 88 | .01 |
| 13 | 90 | 73 | 82 | 95 | 63 | 88 | .50 |
| 14 | 87 | 73 | 80 | 95 | 70 | 89 | .58 |
| 15 | 80 | 73 | 76 | 98 | 86 | 94 | .07 |
| 16 | 84 | 73 | 78 | 96 | 78 | 88 | .06 |
| 17 | 87 | 73 | 80 | 98 | 70 | 86 | .16 |
| 18 | 89 | 73 | 81 | 96 | 64 | 85 | 0 |
| 19 | 88 | 75 | 82 | 95 | 68 | 86 | .06 |
| 20 | 86 | 75 | 80 | 96 | 72 | 88 | .06 |
| 21 | 86 | 76 | 81 | 93 | 72 | 80 | 0 |
| 22 | 85 | 76 | 80 | 93 | 72 | 87 | .01 |
| 23 | 84 | 75 | 80 | 96 | 74 | 90 | .76 |
| 24 | 87 | 73 | 80 | 96 | 71 | 88 | 0 |
| 25 | 89 | 74 | 82 | 96 | 69 | 90 | .07 |
| 26 | 89 | 75 | 82 | 96 | 70 | 91 | .55 |
| 27 | 85 | 76 | 80 | 96 | 72 | 91 | T |
| 28 | 85 | 75 | 80 | 96 | 72 | 89 | .01 |
| 29 | 85 | 74 | 80 | 96 | 76 | 92 | 1.60 |
| 30 | 83 | 73 | 78 | 97 | 76 | 90 | .08 |
| 31 | — | — | — | — | — | — | — |
| Sum | 2596 | 2214 | | 2866 | 2119 | | 5.39 |
| Mean | 86.5 | 73.8 | 80.1 | 95.5 | 70.6 | 88.0 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1953 | 7.07 | 1958 | 13.74 |
| 1954 | 8.68 | 1959 | 5.79 |
| 1955 | 8.28 | 1960 | 6.03 |
| 1956 | 5.00 | 1961 | 7.19 |
| 1957 | 5.66 | 1962 | 5.39 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.838
Departure from normal +.013
Highest 29.93 Date 23
Lowest 29.71 Date 19

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.1
Departure from normal +0.3
Highest 90 Date 8
Lowest 73 Date 18

### RAINFALL
(Inches)

Total 5.39
Departure from normal -2.43
Greatest in 24 hours 1.61
Date 28 - 29

### WIND

Average hourly velocity 3.2 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the NW on the 26th

### SUNSHINE

Average number hours per day 5.7
Percentage of possible 47

### NUMBER OF DAYS

Clear 0
Partly Cloudy 5
Cloudy 25
.01 inch of rain or more 22
Thunderstorms 17
Light fog 1
Dense fog 0

Number of hours with rain 52

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

LIBRARY
NOV 21 1962
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** October 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 72 | 80 | 96 | 66 | 86 | .73 |
| 2 | 83 | 72 | 78 | 96 | 73 | 91 | .44 |
| 3 | 85 | 75 | 80 | 93 | 71 | 82 | .03 |
| 4 | 87 | 76 | 82 | 91 | 68 | 81 | 0 |
| 5 | 86 | 74 | 80 | 96 | 73 | 89 | .08 |
| 6 | 87 | 73 | 80 | 96 | 70 | 88 | 0 |
| 7 | 89 | 72 | 80 | 96 | 66 | 86 | .01 |
| 8 | 89 | 75 | 82 | 96 | 67 | 88 | .09 |
| 9 | 87 | 72 | 80 | 95 | 70 | 87 | .07 |
| 10 | 83 | 73 | 78 | 96 | 76 | 93 | 1.94 |
| 11 | 85 | 73 | 79 | 97 | 70 | 88 | .12 |
| 12 | 85 | 72 | 78 | 96 | 68 | 90 | .25 |
| 13 | 83 | 70 | 76 | 96 | 73 | 90 | .01 |
| 14 | 85 | 73 | 79 | 96 | 71 | 90 | .15 |
| 15 | 85 | 72 | 78 | 97 | 76 | 89 | T |
| 16 | 86 | 72 | 79 | 96 | 72 | 90 | 2.00 |
| 17 | 82 | 71 | 76 | 97 | 79 | 93 | .09 |
| 18 | 82 | 72 | 77 | 96 | 78 | 92 | T |
| 19 | 88 | 72 | 80 | 96 | 65 | 94 | 0 |
| 20 | 90 | 74 | 82 | 96 | 66 | 89 | .52 |
| 21 | 90 | 73 | 82 | 96 | 65 | 88 | .11 |
| 22 | 90 | 75 | 82 | 96 | 65 | 87 | .03 |
| 23 | 86 | 74 | 80 | 96 | 73 | 92 | .51 |
| 24 | 89 | 74 | 82 | 97 | 67 | 87 | 0 |
| 25 | 90 | 75 | 82 | 96 | 69 | 85 | 0 |
| 26 | 84 | 75 | 80 | 94 | 74 | 89 | .21 |
| 27 | 84 | 74 | 79 | 97 | 76 | 91 | .07 |
| 28 | 85 | 73 | 79 | 96 | 71 | 88 | .01 |
| 29 | 88 | 73 | 80 | 96 | 68 | 89 | .01 |
| 30 | 88 | 72 | 80 | 97 | 63 | 86 | .22 |
| 31 | 84 | 73 | 78 | 96 | 74 | 90 | 5.75 |
| Sum | 2672 | 2266 | | 2971 | 2183 | | 13.45 |
| Mean | 86.2 | 73.1 | 79.6 | 95.8 | 70.4 | 88.4 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1953 | 14.07 | 1958 | 9.96 |
| 1954 | 14.18 | 1959 | 18.50 |
| 1955 | 6.46 | 1960 | 5.74 |
| 1956 | 13.44 | 1961 | 10.58 |
| 1957 | 9.78 | 1962 | 13.45 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.853
Departure from normal +.027
Highest 29.97 Date 29
Lowest 29.73 Date 25

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.6
Departure from normal +0.4
Highest 90 Date 20
Lowest 70 Date 13

### RAINFALL
(Inches)

Total 13.45
Departure from normal +2.78
Greatest in 24 hours 8.43
Date 31 Oct. - 1 Nov.

### WIND

Average hourly velocity 3.8 mph.
Prevailing direction NE
Maximum for five minutes 20
mph. from the N on the 20

### SUNSHINE

Average number hours per day 5.1
Percentage of possible 42

### NUMBER OF DAYS

Clear 0
Partly Cloudy 7
Cloudy 24
.01 inch of rain or more 24
Thunderstorms 13
Light fog 3
Dense fog 3

Number of hours with rain 68

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA, CANAL ZONE **Month:** NOVEMBER 1962

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 81 | 71 | 76 | 98 | 82 | 95 | 3.23 |
| 2 | 86 | 71 | 78 | 98 | 69 | 89 | .30 |
| 3 | 85 | 73 | 79 | 96 | 72 | 93 | .64 |
| 4 | 83 | 71 | 77 | 97 | 74 | 90 | 2.07 |
| 5 | 85 | 71 | 78 | 98 | 69 | 89 | 0 |
| 6 | 88 | 71 | 80 | 96 | 65 | 85 | 0 |
| 7 | 90 | 72 | 81 | 96 | 64 | 86 | 0 |
| 8 | 90 | 74 | 82 | 97 | 65 | 91 | .89 |
| 9 | 90 | 74 | 82 | 97 | 69 | 89 | .02 |
| 10 | 85 | 75 | 80 | 97 | 79 | 93 | .55 |
| 11 | 87 | 74 | 80 | 97 | 70 | 90 | T |
| 12 | 85 | 74 | 80 | 97 | 76 | 94 | .31 |
| 13 | 89 | 74 | 82 | 97 | 65 | 89 | .25 |
| 14 | 83 | 73 | 78 | 97 | 77 | 93 | .07 |
| 15 | 87 | 73 | 80 | 98 | 65 | 90 | .15 |
| 16 | 87 | 72 | 80 | 97 | 68 | 86 | T |
| 17 | 86 | 75 | 80 | 96 | 71 | 86 | 0 |
| 18 | 83 | 74 | 78 | 95 | 75 | 88 | T |
| 19 | 87 | 74 | 80 | 96 | 70 | 88 | .08 |
| 20 | 83 | 73 | 78 | 96 | 77 | 92 | 0 |
| 21 | 85 | 74 | 80 | 97 | 72 | 87 | .94 |
| 22 | 85 | 73 | 79 | 98 | 71 | 90 | 1.97 |
| 23 | 91 | 70 | 80 | 97 | 51 | 80 | 0 |
| 24 | 90 | 73 | 82 | 93 | 57 | 81 | 0 |
| 25 | 85 | 74 | 80 | 94 | 69 | 85 | T |
| 26 | 84 | 73 | 78 | 96 | 74 | 92 | .46 |
| 27 | 84 | 71 | 78 | 97 | 67 | 93 | .89 |
| 28 | 86 | 70 | 78 | 98 | 65 | 91 | .23 |
| 29 | 86 | 71 | 78 | 98 | 65 | 90 | .34 |
| 30 | 87 | 72 | 80 | 98 | 62 | 85 | T |
| 31 | --- | --- | --- | --- | --- | --- | --- |
| Sum | 2583 | 2180 | | 2902 | 2075 | | 13.39 |
| Mean | 86.1 | 72.7 | 79.4 | 96.7 | 69.2 | 89.1 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1953 | 6.28 | 1958 | 12.65 |
| 1954 | 13.62 | 1959 | 8.00 |
| 1955 | 15.75 | 1960 | 11.14 |
| 1956 | 10.17 | 1961 | 8.49 |
| 1957 | 8.68 | 1962 | 13.39 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.854
Departure from normal +.035
Highest 29.97 Date 4
Lowest 29.72 Date 13

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.4
Departure from normal +0.2
Highest 91 Date 23
Lowest 70 Date 23

### RAINFALL
(Inches)

Total 13.39
Departure from normal +3.14
Greatest in 24 hours 8.43
Date 31 Oct. - 1 Nov.

### WIND

Average hourly velocity 4.8 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the N on the 14

### SUNSHINE

Average number hours per day 5.8
Percentage of possible 50

### NUMBER OF DAYS

Clear 0
Partly Cloudy 8
Cloudy 22
.01 inch of rain or more 18
Thunderstorms 11
Light fog 1
Dense fog 0

Number of hours with rain 74

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** January 1963

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 72 | 80 | 96 | 53 | 78 | 0 |
| 2 | 88 | 71 | 80 | 96 | 55 | 79 | 0 |
| 3 | 90 | 69 | 80 | 95 | 49 | 75 | 0 |
| 4 | 89 | 72 | 80 | 91 | 56 | 76 | 0 |
| 5 | 88 | 73 | 80 | 93 | 56 | 76 | 0 |
| 6 | 87 | 73 | 80 | 97 | 65 | 88 | .79 |
| 7 | 79 | 71 | 80 | 97 | 81 | 95 | .95 |
| 8 | 83 | 72 | 78 | 98 | 74 | 90 | .05 |
| 9 | 87 | 74 | 80 | 95 | 58 | 82 | 0 |
| 10 | 89 | 72 | 80 | 98 | 62 | 85 | .02 |
| 11 | 89 | 73 | 81 | 97 | 66 | 86 | .01 |
| 12 | 88 | 72 | 80 | 97 | 63 | 85 | .05 |
| 13 | 87 | 72 | 80 | 97 | 66 | 84 | .01 |
| 14 | 90 | 71 | 80 | 96 | 56 | 81 | 0 |
| 15 | 90 | 72 | 81 | 97 | 50 | 77 | 0 |
| 16 | 91 | 71 | 81 | 95 | 52 | 76 | T |
| 17 | 88 | 71 | 80 | 97 | 61 | 83 | .02 |
| 18 | 91 | 71 | 81 | 97 | 53 | 78 | 0 |
| 19 | 90 | 71 | 80 | 95 | 53 | 78 | 0 |
| 20 | 90 | 71 | 80 | 96 | 55 | 81 | 0 |
| 21 | 91 | 71 | 81 | 97 | 57 | 81 | T |
| 22 | 91 | 72 | 82 | 97 | 57 | 80 | 0 |
| 23 | 92 | 75 | 84 | 96 | 57 | 81 | .04 |
| 24 | 91 | 73 | 82 | 97 | 54 | 78 | 0 |
| 25 | 90 | 72 | 81 | 95 | 54 | 79 | 0 |
| 26 | 91 | 71 | 81 | 95 | 53 | 78 | 0 |
| 27 | 89 | 70 | 80 | 95 | 54 | 77 | 0 |
| 28 | 90 | 71 | 80 | 97 | 58 | 80 | 0 |
| 29 | 92 | 72 | 82 | 97 | 53 | 77 | 0 |
| 30 | 91 | 72 | 82 | 96 | 57 | 79 | 0 |
| 31 | 89 | 72 | 80 | 96 | 53 | 76 | 0 |
| Sum | 2760 | 2225 | | 2978 | 1791 | | 1.94 |
| Mean | 89.0 | 71.8 | 80.4 | 96.1 | 57.8 | 80.6 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 19 59 | .61 | 19 59 | 1.85 |
| 19 55 | 4.[illegible] | 19 60 | 4.77 |
| 19 56 | 2.[illegible] | 19 61 | .[illegible] |
| 19 57 | .[illegible] | 19 62 | .[illegible] |
| 19 58 | .79 | 19 63 | 1.94 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.866
Departure from normal +.023
Highest 29.96 Date 15
Lowest 19.77 Date 12

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 80.4
Departure from normal +0.4
Highest 92 Date 29
Lowest 69 Date 3

**RAINFALL**
(Inches)

Total 1.94
Departure from normal +0.79
Greatest in 24 hours 1.56
Date 6 & 7

**WIND**

Average hourly velocity 6.7 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the NW on the 7

**SUNSHINE**

Average number hours per day 9.9
Percentage of possible 85

**NUMBER OF DAYS**

Clear 15
Partly Cloudy 12
Cloudy 4
.01 inch of rain or more 9
Thunderstorms 1
Light fog 0
Dense fog 0

Number of hours with rain 27

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** March 1963

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 73 | 82 | 93 | 52 | 78 | |
| 2 | 91 | 74 | 82 | 92 | 52 | 75 | |
| 3 | 89 | 74 | 82 | 92 | 55 | 75 | |
| 4 | 90 | 73 | 82 | 93 | 55 | 75 | |
| 5 | 92 | 74 | 83 | 93 | 57 | 78 | |
| 6 | 93 | 74 | 84 | 94 | 51 | 74 | |
| 7 | 90 | 72 | 81 | 94 | 56 | 78 | .12 |
| 8 | 91 | 73 | 82 | 95 | 52 | 76 | |
| 9 | 89 | 75 | 82 | 90 | 56 | 76 | T |
| 10 | 90 | 74 | 82 | 91 | 53 | 75 | T |
| 11 | 93 | 72 | 82 | 95 | 47 | 74 | |
| 12 | 91 | 74 | 82 | 93 | 54 | 76 | |
| 13 | 90 | 72 | 81 | 93 | 57 | 77 | T |
| 14 | 90 | 74 | 82 | 91 | 53 | 73 | |
| 15 | 93 | 73 | 83 | 92 | 50 | 71 | |
| 16 | 91 | 74 | 82 | 90 | 56 | 74 | |
| 17 | 93 | 75 | 84 | 92 | 49 | 72 | |
| 18 | 93 | 74 | 84 | 92 | 51 | 76 | |
| 19 | 90 | 74 | 82 | 93 | 64 | 73 | |
| 20 | 91 | 74 | 82 | 93 | 58 | 74 | |
| 21 | 92 | 72 | 82 | 93 | 48 | 74 | |
| 22 | 91 | 74 | 82 | 88 | 54 | 70 | |
| 23 | 90 | 73 | 82 | 87 | 55 | 72 | T |
| 24 | 91 | 73 | 82 | 88 | 53 | 70 | |
| 25 | 93 | 74 | 84 | 89 | 50 | 71 | |
| 26 | 92 | 74 | 83 | 92 | 52 | 73 | |
| 27 | 92 | 73 | 82 | 92 | 49 | 71 | |
| 28 | 91 | 73 | 82 | 88 | 52 | 73 | |
| 29 | 92 | 72 | 82 | 94 | 52 | 73 | |
| 30 | 93 | 73 | 83 | 92 | 47 | 71 | |
| 31 | 90 | 72 | 81 | 92 | 50 | 72 | |
| Sum | 2829 | 2279 | | 2846 | 1640 | | .12 |
| Mean | 91.3 | 73.5 | 82.4 | 91.8 | 52.9 | 74.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 19[illegible] | .20 | 19[illegible] | T |
| 19[illegible] | .[illegible] | 19[illegible] | .[illegible] |
| 19[illegible] | .[illegible] | 19[illegible] | .[illegible] |
| 19[illegible] | T | 19[illegible] | .17 |
| 19[illegible] | T | 19[illegible] | .12 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.847
Departure from normal +0.005
Highest 29.95 Date 29
Lowest 29.73 Date 15

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 82.4
Departure from normal +0.8
Highest 93 Date 17
Lowest 72 Date 7

**RAINFALL**
(Inches)

Total .12
Departure from normal - .50
Greatest in 24 hours .12
Date 7

**WIND**

Average hourly velocity 8.3 mph.
Prevailing direction NE
Maximum for five minutes 24
mph. from the N on the 24

**SUNSHINE**

Average number hours per day 9.5
Percentage of possible 78

**NUMBER OF DAYS**

Clear 2
Partly Cloudy 20
Cloudy 9
.01 inch of rain or more
Thunderstorms 0
Light fog 0
Dense fog
Number of hours [illegible] 2

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** MAY 1963

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 72 | 80 | 99 | 58 | 82 | T |
| 2 | 89 | 71 | 80 | 96 | 52 | 74 | |
| 3 | 89 | 72 | 80 | 94 | 56 | 76 | |
| 4 | 89 | 73 | 81 | 94 | 55 | 75 | |
| 5 | 89 | 73 | 81 | 94 | 53 | 75 | |
| 6 | 88 | 74 | 81 | 94 | 61 | 84 | .01 |
| 7 | 87 | 74 | 80 | 95 | 60 | 84 | |
| 8 | 87 | 74 | 80 | 95 | 61 | 84 | .03 |
| 9 | 88 | 73 | 80 | 95 | 60 | 85 | 1.17 |
| 10 | 89 | 72 | 80 | 97 | 61 | 81 | .02 |
| 11 | 86 | 74 | 80 | 94 | 62 | 81 | |
| 12 | 92 | 73 | 82 | 95 | 53 | 76 | |
| 13 | 89 | 74 | 82 | 95 | 56 | 87 | 1.33 |
| 14 | 92 | 74 | 83 | 97 | 55 | 86 | .04 |
| 15 | 88 | 75 | 82 | 97 | 64 | 85 | |
| 16 | 91 | 75 | 83 | 98 | 61 | 89 | .76 |
| 17 | 88 | 74 | 81 | 98 | 68 | 91 | .20 |
| 18 | 87 | 75 | 81 | 98 | 71 | 89 | .01 |
| 19 | 83 | 76 | 80 | 98 | 79 | 93 | .40 |
| 20 | 80 | 74 | 77 | 99 | 88 | 96 | .02 |
| 21 | 87 | 75 | 81 | 100 | 71 | 88 | |
| 22 | 90 | 75 | 82 | 99 | 65 | 90 | .51 |
| 23 | 91 | 76 | 84 | 98 | 65 | 84 | |
| 24 | 88 | 76 | 82 | 98 | 72 | 89 | T |
| 25 | 81 | 76 | 78 | 98 | 88 | 95 | .23 |
| 26 | 85 | 75 | 80 | 99 | 72 | 93 | .11 |
| 27 | 86 | 74 | 80 | 98 | 74 | 92 | .15 |
| 28 | 86 | 73 | 80 | 98 | 72 | 89 | .01 |
| 29 | 86 | 73 | 80 | 98 | 72 | 87 | |
| 30 | 91 | 75 | 83 | 98 | 62 | 86 | T |
| 31 | 90 | 76 | 83 | 97 | 64 | 86 | T |
| Sum | 2720 | 2296 | | 3003 | 2011 | | 5.00 |
| Mean | 87.7 | 74.1 | 80.9 | 96.9 | 64.9 | 85.6 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1954 | 8.65 | 1959 | 9.23 |
| 1955 | 6.31 | 1960 | 7.28 |
| 1956 | 10.81 | 1961 | 5.82 |
| 1957 | 9.18 | 1962 | 5.54 |
| 1958 | 10.37 | 1963 | 5.00 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.847
Departure from normal -0.022
Highest 29.97 Date 9
Lowest 29.72 Date 23

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.9
Departure from normal 0.0
Highest 92 Date 14
Lowest 71 Date 2

**RAINFALL**
**(Inches)**

Total 5.00
Departure from normal -2.91
Greatest in 24 hours 1.33
Date 13

**WIND**

Average hourly velocity 5.2 mph.
Prevailing direction NW
Maximum for five minutes 27
mph. from the NE on the 16

**SUNSHINE**

Average number hours per day 6.7
Percentage of possible 54

**NUMBER OF DAYS**

Clear 1
Partly Cloudy 12
Cloudy 18
.01 inch of rain or more 16
Thunderstorms 9
Light fog 1
Dense fog 0
Number of hours with rain 48

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PANAMA CANAL COMPANY
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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: June 1963

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 76 | 82 | 98 | 67 | 88 | T |
| 2 | 90 | 76 | 83 | 98 | 72 | 90 | .50 |
| 3 | 90 | 76 | 83 | 99 | 68 | 94 | .97 |
| 4 | 88 | 74 | 81 | 100 | 71 | 95 | .07 |
| 5 | 88 | 73 | 80 | 99 | 63 | 85 | |
| 6 | 88 | 75 | 82 | 99 | 71 | 92 | T |
| 7 | 91 | 77 | 84 | 100 | 69 | 89 | T |
| 8 | 84 | 76 | 80 | 98 | 73 | 92 | T |
| 9 | 86 | 76 | 81 | 96 | 63 | 81 | .01 |
| 10 | 84 | 75 | 80 | 97 | 77 | 90 | .33 |
| 11 | 84 | 72 | 78 | 98 | 75 | 89 | 1.11 |
| 12 | 82 | 72 | 77 | 98 | 72 | 90 | .58 |
| 13 | 81 | 74 | 78 | 96 | 80 | 94 | .21 |
| 14 | 88 | 71 | 80 | 96 | 69 | 84 | |
| 15 | 91 | 74 | 82 | 97 | 61 | 88 | .76 |
| 16 | 81 | 74 | 78 | 96 | 72 | 87 | |
| 17 | 86 | 74 | 80 | 93 | 60 | 84 | |
| 18 | 92 | 74 | 83 | 93 | 61 | 87 | .80 |
| 19 | 89 | 75 | 82 | 94 | 63 | 85 | |
| 20 | 88 | 75 | 82 | 94 | 70 | 87 | T |
| 21 | 88 | 74 | 81 | 97 | 65 | 87 | .95 |
| 22 | 91 | 74 | 82 | 97 | 62 | 84 | .01 |
| 23 | 86 | 77 | 82 | 96 | 58 | 82 | |
| 24 | 89 | 74 | 82 | 97 | 63 | 90 | .19 |
| 25 | 85 | 74 | 80 | 97 | 72 | 89 | .01 |
| 26 | 83 | 71 | 77 | 98 | 61 | 89 | .47 |
| 27 | 90 | 74 | 82 | 98 | 59 | 87 | |
| 28 | 87 | 74 | 80 | 98 | 65 | 88 | |
| 29 | 86 | 73 | 80 | 96 | 70 | 88 | .01 |
| 30 | 87 | 74 | 80 | 97 | 66 | 90 | .37 |
| 31 | --- | --- | --- | --- | --- | --- | --- |
| Sum | 2612 | 2228 | | 2910 | 2018 | | 7.35 |
| Mean | 87.1 | 74.3 | 80.7 | 97.0 | 67.3 | 88.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1954 | 13.26 | 1959 | 4.57 |
| 1955 | 8.30 | 1960 | 5.36 |
| 1956 | 10.10 | 1961 | 10.72 |
| 1957 | 5.71 | 1962 | 10.20 |
| 1958 | 5.20 | 1963 | 7.35 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.842
Departure from normal + 0.013
Highest 30.01 Date 14
Lowest 29.72 Date 22

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.7
Departure from normal + 0.5
Highest 92 Date 18
Lowest 71 Date 26

**RAINFALL**
**(Inches)**

Total 7.35
Departure from normal - 0.74
Greatest in 24 hours 1.53
Date 11 - 12

**WIND**

Average hourly velocity 4.3 mph.
Prevailing direction W
Maximum for five minutes 23
mph. from the N on the 31

**SUNSHINE**

Average number hours per day 5.7
Percentage of possible 45

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 3
Cloudy 27
.01 inch of rain or more 17
Thunderstorms 18
Light fog 0
Dense fog 0

Number of hours with rain 57

8—11-62—300

Rec'd. O/C
JUL 16 1963

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

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WEATHER BUREAU

Station: Balboa Heights, C. Z. Month: July 1963

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 76 | 82 | 97 | 66 | 89 | .07 |
| 2 | 79 | 71 | 75 | 98 | 82 | 94 | .50 |
| 3 | 91 | 71 | 81 | 97 | 58 | 83 | |
| 4 | 88 | 75 | 82 | 98 | 61 | 90 | 3.07 |
| 5 | 86 | 74 | 80 | 97 | 68 | 87 | .10 |
| 6 | 84 | 74 | 79 | 98 | 79 | 93 | .01 |
| 7 | 86 | 73 | 80 | 98 | 70 | 88 | |
| 8 | 85 | 73 | 79 | 97 | 70 | 90 | T |
| 9 | 83 | 72 | 78 | 98 | 78 | 91 | T |
| 10 | 87 | 74 | 80 | 98 | 62 | 88 | T |
| 11 | 85 | 73 | 79 | 99 | 68 | 89 | .66 |
| 12 | 86 | 73 | 80 | 98 | 64 | 88 | .14 |
| 13 | 86 | 74 | 80 | 96 | 59 | 90 | .06 |
| 14 | 86 | 74 | 80 | 97 | 64 | 90 | .06 |
| 15 | 89 | 74 | 82 | 97 | 60 | 87 | .03 |
| 16 | 86 | 74 | 80 | 95 | 66 | 89 | .97 |
| 17 | 84 | 73 | 78 | 96 | 62 | 86 | |
| 18 | 85 | 73 | 79 | 96 | 60 | 84 | |
| 19 | 86 | 74 | 80 | 99 | 66 | 88 | .14 |
| 20 | 85 | 73 | 79 | 98 | 74 | 91 | .07 |
| 21 | 85 | 72 | 78 | 96 | 71 | 89 | T |
| 22 | 88 | 72 | 80 | 96 | 67 | 88 | .02 |
| 23 | 85 | 74 | 80 | 98 | 68 | 88 | |
| 24 | 90 | 74 | 82 | 98 | 61 | 85 | T |
| 25 | 90 | 73 | 82 | 96 | 58 | 85 | T |
| 26 | 89 | 75 | 82 | 96 | 61 | 88 | .01 |
| 27 | 85 | 75 | 82 | 97 | 68 | 88 | |
| 28 | 85 | 73 | 80 | 96 | 71 | 86 | |
| 29 | 89 | 74 | 82 | 96 | 64 | 86 | .94 |
| 30 | 87 | 73 | 82 | 98 | 64 | 90 | .39 |
| 31 | 81 | 74 | 78 | 98 | 80 | 92 | .34 |
| Sum | 2672 | 2283 | | 3013 | 2070 | | 8.38 |
| Mean | 86.2 | 73.6 | 79.9 | 97.2 | 66.8 | 88.4 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1954 | 8.25 | 1959 | 5.99 |
| 1955 | 10.06 | 1960 | 5.41 |
| 1956 | 13.08 | 1961 | 8.80 |
| 1957 | 10.93 | 1962 | 5.69 |
| 1958 | 6.31 | 1963 | 8.38 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.843
Departure from normal +.012
Highest 29.97 Date 13
Lowest 29.76 Date 23

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.9
Departure from normal -0.5
Highest 91 Date 3
Lowest 71 Date 3

### RAINFALL
(Inches)

Total 8.38
Departure from normal + .96
Greatest in 24 hours 3.07
Date 4

### WIND

Average hourly velocity 4.5 mph.
Prevailing direction NW
Maximum for five minutes 17
mph. from the N on the 16

### SUNSHINE

Average number hours per day 5.7
Percentage of possible 43

### NUMBER OF DAYS

Clear 1
Partly Cloudy 0
Cloudy 30
.01 inch of rain or more 18
Thunderstorms 20
Light fog 1
Dense fog 0

Number of hours with rain 53

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** August 1963

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 80 | 72 | 76 | 98 | 86 | 95 | 2.52 |
| 2 | 82 | 72 | 77 | 98 | 72 | 91 | 0 |
| 3 | 84 | 72 | 78 | 98 | 70 | 89 | .06 |
| 4 | 90 | 72 | 81 | 98 | 63 | 85 | T |
| 5 | 89 | 75 | 82 | 98 | 66 | 87 | 0 |
| 6 | 86 | 74 | 80 | 100 | 73 | 90 | 1.03 |
| 7 | 90 | 74 | 82 | 98 | 61 | 88 | T |
| 8 | 86 | 73 | 80 | 98 | 70 | 92 | .10 |
| 9 | 84 | 73 | 78 | 98 | 75 | 92 | .01 |
| 10 | 88 | 74 | 81 | 98 | 64 | 91 | .17 |
| 11 | 90 | 74 | 82 | 98 | 63 | 86 | .03 |
| 12 | 87 | 76 | 82 | 96 | 66 | 88 | 0 |
| 13 | 90 | 76 | 83 | 98 | 64 | 87 | 0 |
| 14 | 92 | 76 | 84 | 97 | 60 | 84 | .19 |
| 15 | 91 | 75 | 83 | 98 | 62 | 87 | .23 |
| 16 | 90 | 77 | 84 | 98 | 60 | 85 | 0 |
| 17 | 89 | 75 | 82 | 96 | 64 | 88 | T |
| 18 | 87 | 75 | 81 | 97 | 66 | 88 | .47 |
| 19 | 88 | 74 | 81 | 99 | 60 | 91 | .59 |
| 20 | 83 | 74 | 78 | 99 | 66 | 89 | .25 |
| 21 | 85 | 73 | 79 | 95 | 66 | 86 | T |
| 22 | 89 | 73 | 81 | 96 | 63 | 84 | T |
| 23 | 87 | 75 | 81 | 94 | 68 | 85 | 0 |
| 24 | 89 | 75 | 82 | 96 | 65 | 84 | .09 |
| 25 | 89 | 75 | 82 | 96 | 62 | 85 | .03 |
| 26 | 89 | 75 | 82 | 94 | 60 | 86 | .09 |
| 27 | 87 | 75 | 81 | 97 | 60 | 91 | .62 |
| 28 | 90 | 74 | 82 | 96 | 62 | 88 | .32 |
| 29 | 92 | 74 | 83 | 96 | 50 | 84 | 0 |
| 30 | 90 | 76 | 83 | 96 | 64 | 86 | .06 |
| 31 | 88 | 76 | 82 | 96 | 66 | 86 | 0 |
| Sum | 2721 | 2304 | | 3010 | 2017 | | 6.86 |
| Mean | 87.8 | 74.3 | 81.0 | 97.1 | 65.1 | 89.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1954 | 8.49 | 1959 | 7.62 |
| 1955 | 11.30 | 1960 | 11.74 |
| 1956 | 11.51 | 1961 | 5.92 |
| 1957 | 10.06 | 1962 | 6.43 |
| 1958 | 9.65 | 1963 | 6.86 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.828
Departure from normal -.003
Highest 29.95 Date 21st
Lowest 29.69 Date 31st

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.0
Departure from normal +0.7
Highest 92 Date 29th
Lowest 72 Date 1st

### RAINFALL
(Inches)

Total 6.86
Departure from normal -0.91
Greatest in 24 hours 2.32
Date 31 - 1

### WIND

Average hourly velocity 5.4 mph.
Prevailing direction N
Maximum for five minutes 24
mph. from the N on the 19th

### SUNSHINE

Average number hours per day 6.4
Percentage of possible 52

### NUMBER OF DAYS

Clear 0
Partly Cloudy 5
Cloudy 26
.01 inch of rain or more 18
Thunderstorms 15
Light fog 0
Dense fog 0

Number of hours with rain 51

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WEATHER BUREAU

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights Month: November 1963

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 73 | 78 | 96 | 72 | 89 | .01 |
| 2 | 86 | 73 | 80 | 96 | 64 | 89 | .38 |
| 3 | 83 | 72 | 78 | 97 | 77 | 91 | .07 |
| 4 | 84 | 72 | 78 | 96 | 70 | 85 | .04 |
| 5 | 85 | 76 | 80 | 87 | 68 | 80 | 0 |
| 6 | 84 | 74 | 79 | 96 | 70 | 85 | T |
| 7 | 85 | 72 | 78 | 96 | 67 | 87 | .10 |
| 8 | 85 | 74 | 80 | 96 | 69 | 88 | .03 |
| 9 | 87 | 74 | 80 | 96 | 66 | 86 | .01 |
| 10 | 87 | 73 | 80 | 96 | 59 | 89 | .14 |
| 11 | 85 | 73 | 79 | 98 | 67 | 88 | 4.44 |
| 12 | 83 | 71 | 77 | 96 | 74 | 92 | .64 |
| 13 | 82 | 72 | 77 | 95 | 69 | 89 | .13 |
| 14 | 83 | 72 | 78 | 96 | 68 | 89 | .77 |
| 15 | 86 | 72 | 79 | 96 | 64 | 87 | .65 |
| 16 | 83 | 71 | 77 | 96 | 72 | 89 | .03 |
| 17 | 85 | 73 | 79 | 96 | 69 | 86 | .01 |
| 18 | 87 | 74 | 80 | 95 | 60 | 84 | 0 |
| 19 | 89 | 74 | 82 | 95 | 57 | 86 | .25 |
| 20 | 86 | 74 | 80 | 95 | 65 | 88 | .25 |
| 21 | 86 | 75 | 80 | 95 | 68 | 90 | .24 |
| 22 | 88 | 73 | 80 | 98 | 63 | 92 | .20 |
| 23 | 86 | 73 | 80 | 96 | 65 | 89 | 0 |
| 24 | 85 | 72 | 78 | 98 | 70 | 94 | .84 |
| 25 | 87 | 73 | 80 | 98 | 63 | 90 | .07 |
| 26 | 88 | 72 | 80 | 97 | 62 | 88 | .21 |
| 27 | 89 | 71 | 80 | 96 | 56 | 86 | .36 |
| 28 | 86 | 74 | 80 | 96 | 68 | 88 | 0 |
| 29 | 88 | 74 | 81 | 98 | 66 | 89 | .12 |
| 30 | 91 | 74 | 82 | 98 | 58 | 83 | 0 |
| 31 | — | — | — | — | — | — | — |
| Sum | 2573 | 2190 | | 2880 | 1986 | | 10.49 |
| Mean | 85.8 | 73.0 | 79.4 | 96.0 | 66.2 | 87.8 | |

## TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1954 | 13.62 | 1959 | 8.00 |
| 1955 | 15.75 | 1960 | 11.14 |
| 1956 | 10.17 | 1961 | 8.49 |
| 1957 | 8.68 | 1962 | 12.39 |
| 1958 | 12.65 | 1963 | 10.49 |

## AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.852
Departure from normal +0.032
Highest 29.99 Date 15
Lowest 29.73 Date 9

## AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.4
Departure from normal +0.2
Highest 91 Date 30
Lowest 71 Date 12

## RAINFALL
(Inches)

Total 10.49
Departure from normal +0.23
Greatest in 24 hours 4.95
Date 11-12

## WIND

Average hourly velocity 4.8 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the S on the 11

## SUNSHINE

Average number hours per day 4.3
Percentage of possible 37

## NUMBER OF DAYS

Clear 1
Partly Cloudy 3
Cloudy 26
.01 inch of rain or more 23
Thunderstorms 8
Light fog 4
Dense fog 0

Number of hours with rain 79

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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: January 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 71 | 80 | 98 | 50 | 81 | |
| 2 | 92 | 74 | 83 | 96 | 47 | 76 | |
| 3 | 92 | 74 | 83 | 95 | 53 | 73 | |
| 4 | 90 | 73 | 82 | 96 | 55 | 81 | |
| 5 | 88 | 73 | 80 | 97 | 57 | 82 | T |
| 6 | 91 | 73 | 82 | 95 | 50 | 77 | |
| 7 | 91 | 73 | 82 | 96 | 53 | 78 | |
| 8 | 93 | 73 | 83 | 96 | 44 | 78 | |
| 9 | 91 | 73 | 82 | 97 | 55 | 80 | |
| 10 | 93 | 74 | 84 | 97 | 48 | 77 | |
| 11 | 92 | 73 | 82 | 97 | 46 | 76 | |
| 12 | 92 | 73 | 82 | 97 | 43 | 78 | |
| 13 | 91 | 73 | 82 | 96 | 42 | 75 | |
| 14 | 88 | 75 | 82 | 93 | 53 | 79 | T |
| 15 | 91 | 71 | 81 | 96 | 42 | 73 | |
| 16 | 91 | 71 | 81 | 98 | 49 | 76 | |
| 17 | 92 | 73 | 82 | 93 | 50 | 76 | |
| 18 | 93 | 74 | 84 | 92 | 42 | 74 | |
| 19 | 90 | 73 | 82 | 97 | 54 | 77 | |
| 20 | 93 | 73 | 83 | 98 | 46 | 75 | |
| 21 | 91 | 72 | 82 | 92 | 46 | 72 | |
| 22 | 93 | 71 | 82 | 98 | 44 | 76 | |
| 23 | 92 | 71 | 82 | 97 | 40 | 76 | |
| 24 | 92 | 70 | 81 | 97 | 46 | 74 | |
| 25 | 93 | 70 | 82 | 98 | 42 | 74 | |
| 26 | 91 | 72 | 82 | 96 | 49 | 76 | |
| 27 | 93 | 72 | 82 | 98 | 46 | 76 | |
| 28 | 92 | 73 | 82 | 97 | 44 | 74 | |
| 29 | 89 | 72 | 80 | 98 | 48 | 73 | |
| 30 | 89 | 73 | 81 | 92 | 52 | 74 | T |
| 31 | 92 | 71 | 83 | 98 | 42 | 74 | |
| Sum | 2831 | 2247 | | 2981 | 1489 | | T |
| Mean | 91.3 | 72.5 | 81.9 | 96.2 | 48.0 | 76.3 | |

TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1955 | 4.32 | 1960 | 4.47 |
| 1956 | 2.63 | 1961 | .66 |
| 1957 | .44 | 1962 | .60 |
| 1958 | .79 | 1963 | 1.94 |
| 1959 | 1.05 | 1964 | T |

## AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.853
Departure from normal: +0.010
Highest: 29.97 Date: 17
Lowest: 29.72 Date: 7

## AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 81.9
Departure from normal: +1.9
Highest: 93 Date: 10
Lowest: 70 Date: 24

## RAINFALL
(Inches)

Total: T
Departure from normal:
Greatest in 24 hours: T
Date: 5 +

## WIND

Average hourly velocity: 8.2 mph.
Prevailing direction: NW
Maximum for five minutes: 24
mph. from the N on the 30

## SUNSHINE

Average number hours per day: 10.2
Percentage of possible: 88

## NUMBER OF DAYS

Clear: 12
Partly Cloudy: 16
Cloudy: 3
.01 inch of rain or more: 0
Thunderstorms: 0
Light fog: 0
Dense fog: 0

Number of hours with rain: 0

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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: Balboa Heights, C. Z. Month: February 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 72 | 82 | 94 | 48 | 74 | |
| 2 | 91 | 72 | 82 | 96 | 42 | 71 | |
| 3 | 91 | 74 | 82 | 86 | 45 | 72 | |
| 4 | 93 | 71 | 82 | 94 | 44 | 74 | |
| 5 | 92 | 71 | 82 | 96 | 53 | 76 | |
| 6 | 92 | 72 | 82 | 94 | 48 | 73 | |
| 7 | 91 | 73 | 82 | 94 | 50 | 74 | |
| 8 | 92 | 74 | 83 | 92 | 48 | 75 | |
| 9 | 90 | 75 | 82 | 92 | 50 | 73 | |
| 10 | 92 | 74 | 84 | 86 | 43 | 67 | |
| 11 | 92 | 70 | 81 | 96 | 38 | 70 | |
| 12 | 93 | 72 | 82 | 94 | 40 | 69 | |
| 13 | 90 | 73 | 82 | 94 | 46 | 71 | |
| 14 | 92 | 70 | 81 | 97 | 42 | 72 | |
| 15 | 91 | 72 | 82 | 94 | 46 | 74 | |
| 16 | 92 | 71 | 82 | 93 | 46 | 72 | |
| 17 | 91 | 73 | 82 | 95 | 48 | 73 | |
| 18 | 92 | 72 | 82 | 93 | 48 | 73 | |
| 19 | 93 | 71 | 82 | 94 | 43 | 71 | |
| 20 | 87 | 71 | 79 | 92 | 48 | 74 | |
| 21 | 91 | 72 | 82 | 94 | 48 | 77 | |
| 22 | 94 | 74 | 84 | 92 | 46 | 79 | .01 |
| 23 | 95 | 75 | 85 | 94 | 40 | 71 | |
| 24 | 90 | 75 | 83 | 94 | 54 | 82 | .44 |
| 25 | 94 | 74 | 84 | 96 | 46 | 75 | .01 |
| 26 | 91 | 75 | 83 | 91 | 48 | 72 | |
| 27 | 92 | 73 | 82 | 94 | 48 | 74 | |
| 28 | 94 | 73 | 84 | 96 | 44 | 72 | |
| 29 | 92 | 73 | 82 | 92 | 48 | 74 | |
| 30 | --- | --- | --- | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | --- | --- | --- |
| Sum | 2661 | 2109 | | 2709 | 1338 | | .46 |
| Mean | 91.8 | 72.7 | 82.2 | 93.4 | 46.1 | 73.5 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1955 | 2.63 | 1960 | .88 |
| 1956 | 1.88 | 1961 | .75 |
| 1957 | 2 | 1962 | .45 |
| 1958 | .10 | 1963 | 2.82 |
| 1959 | 0 | 1964 | .46 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.827
Departure from normal -.028
Highest 29.94 Date 20
Lowest 29.69 Date 18

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 82.2
Departure from normal +1.7
Highest 95 Date 23
Lowest 70 Date 11

**RAINFALL**
**(Inches)**

Total .46
Departure from normal -.21
Greatest in 24 hours .45
Date 24 & 25

**WIND**

Average hourly velocity 8.5 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the N on the 3

**SUNSHINE**

Average number hours per day 10.3
Percentage of possible 87

**NUMBER OF DAYS**

Clear 8
Partly Cloudy 12
Cloudy 9
.01 inch of rain or more 3
Thunderstorms 1
Light fog 0
Dense fog 0

Number of hours with rain 3

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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JUL 10 1964
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** April 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 95 | 72 | 84 | 91 | 41 | 68 | |
| 2 | 92 | 71 | 82 | 92 | 42 | 68 | |
| 3 | 93 | 75 | 84 | 87 | 42 | 67 | |
| 4 | 94 | 75 | 84 | 88 | 38 | 68 | |
| 5 | 93 | 75 | 84 | 90 | 47 | 70 | |
| 6 | 91 | 74 | 82 | 92 | 50 | 72 | T |
| 7 | 92 | 72 | 82 | 92 | 46 | 71 | |
| 8 | 92 | 72 | 82 | 92 | 44 | 73 | T |
| 9 | 91 | 73 | 82 | 92 | 48 | 80 | |
| 10 | 88 | 73 | 80 | 92 | 54 | 81 | .84 |
| 11 | 92 | 74 | 83 | 91 | 50 | 74 | |
| 12 | 94 | 75 | 84 | 92 | 45 | 71 | |
| 13 | 89 | 75 | 82 | 91 | 55 | 78 | T |
| 14 | 86 | 75 | 80 | 94 | 64 | 87 | .34 |
| 15 | 89 | 74 | 82 | 94 | 58 | 83 | .26 |
| 16 | 92 | 74 | 83 | 94 | 46 | 73 | T |
| 17 | 93 | 74 | 84 | 94 | 43 | 72 | |
| 18 | 94 | 74 | 84 | 93 | 44 | 70 | |
| 19 | 93 | 76 | 84 | 90 | 48 | 71 | |
| 20 | 94 | 76 | 85 | 92 | 47 | 74 | |
| 21 | 92 | 76 | 84 | 94 | 53 | 76 | T |
| 22 | 88 | 73 | 80 | 97 | 62 | 84 | .36 |
| 23 | 87 | 74 | 80 | 93 | 63 | 86 | T |
| 24 | 85 | 74 | 80 | 94 | 64 | 85 | .03 |
| 25 | 80 | 73 | 76 | 96 | 76 | 92 | 2.46 |
| 26 | 83 | 75 | 79 | 98 | 74 | 89 | 1.88 |
| 27 | 89 | 73 | 81 | 98 | 50 | 82 | |
| 28 | 90 | 74 | 82 | 97 | 56 | 81 | |
| 29 | 93 | 75 | 84 | 98 | 50 | 84 | .37 |
| 30 | 84 | 76 | 80 | 98 | 72 | 87 | T |
| 31 | — | — | — | — | — | — | — |
| Sum | 2708 | 2222 | | 2798 | 1572 | | 6.54 |
| Mean | 90.3 | 74.1 | 82.2 | 93.3 | 52.4 | 77.3 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1955 | .41 | 1960 | 6.83 |
| 1956 | 2.23 | 1961 | 2.09 |
| 1957 | 1.85 | 1962 | .43 |
| 1958 | 3.01 | 1963 | 6.04 |
| 1959 | 1.46 | 1964 | 6.54 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.850
Departure from normal +0.021
Highest 29.98 Date 10
Lowest 29.69 Date 21

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.2
Departure from normal - 0.0
Highest 95 Date 1
Lowest 71 Date 2

### RAINFALL
(Inches)

Total 6.54
Departure from normal +3.80
Greatest in 24 hours 2.49
Date 24 - 25

### WIND

Average hourly velocity 6.6 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the NW on the 4

### SUNSHINE

Average number hours per day 8.8
Percentage of possible 71

### NUMBER OF DAYS

Clear 1
Partly Cloudy 10
Cloudy 19
.01 inch of rain or more 8
Thunderstorms 3
Light fog 1
Dense fog 0

Number of hours with rain 29

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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, C. Z. Month: June 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 76 | 80 | 98 | 72 | 90 | .52 |
| 2 | 85 | 73 | 79 | 98 | 68 | 90 | .37 |
| 3 | 85 | 74 | 80 | 97 | 70 | 89 | .02 |
| 4 | 79 | 76 | 79 | 97 | 76 | 88 | .15 |
| 5 | 83 | 73 | 78 | 98 | 74 | 92 | .20 |
| 6 | 84 | 73 | 78 | 97 | 70 | 89 | 0 |
| 7 | 85 | 73 | 79 | 96 | 70 | 89 | T |
| 8 | 83 | 75 | 79 | 96 | 76 | 92 | .29 |
| 9 | 84 | 74 | 79 | 97 | 70 | 89 | .01 |
| 10 | 84 | 74 | 79 | 96 | 67 | 90 | .63 |
| 11 | 83 | 73 | 78 | 96 | 72 | 89 | .06 |
| 12 | 84 | 75 | 80 | 96 | 68 | 83 | .01 |
| 13 | 90 | 74 | 82 | 96 | 56 | 85 | .02 |
| 14 | 82 | 75 | 78 | 98 | 78 | 94 | .31 |
| 15 | 84 | 70 | 77 | 98 | 72 | 93 | .64 |
| 16 | 85 | 70 | 78 | 96 | 69 | 89 | 0 |
| 17 | 87 | 73 | 80 | 96 | 62 | 87 | .08 |
| 18 | 87 | 74 | 80 | 96 | 64 | 90 | .14 |
| 19 | 83 | 75 | 79 | 96 | 62 | 85 | 0 |
| 20 | 81 | 74 | 78 | 95 | 78 | 90 | 0 |
| 21 | 86 | 74 | 80 | 96 | 60 | 83 | .05 |
| 22 | 87 | 72 | 80 | 99 | 58 | 88 | .69 |
| 23 | 83 | 72 | 78 | 97 | 70 | 86 | 0 |
| 24 | 85 | 74 | 80 | 96 | 64 | 87 | .45 |
| 25 | 86 | 74 | 80 | 96 | 66 | 86 | 0 |
| 26 | 82 | 75 | 78 | 97 | 71 | 90 | .03 |
| 27 | 82 | 73 | 78 | 98 | 71 | 93 | 0 |
| 28 | 84 | 72 | 78 | 97 | 74 | 91 | .02 |
| 29 | 87 | 74 | 80 | 98 | 66 | 87 | .01 |
| 30 | 85 | 73 | 79 | 98 | 78 | 93 | 1.37 |
| 31 | | | | | | | |
| Sum | 2530 | 2207 | | 2905 | 2064 | | 6.07 |
| Mean | 84.3 | 73.6 | 79.0 | 96.8 | 68.8 | 88.9 | |

TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1955 | 8.36 | 1960 | 5.36 |
| 1956 | 10.10 | 1961 | 10.72 |
| 1957 | 5.72 | 1962 | 10.20 |
| 1958 | [illegible] | 1963 | 7.35 |
| 1959 | 4.37 | 1964 | |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.851
Departure from normal -0.022
Highest 29.97 Date 1
Lowest 29.74 Date 24

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 79.0
Departure from normal -1.1
Highest 90 Date 13
Lowest 70 Date 15

**RAINFALL**
(Inches)

Total 6.07
Departure from normal -1.99
Greatest in 24 hours 1.37
Date 30th

**WIND**

Average hourly velocity 4.1 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the S on the 11

**SUNSHINE**

Average number hours per day 4.6
Percentage of possible 37

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 1
Cloudy 29
.01 inch of rain or more 22
Thunderstorms 13
Light fog 1
Dense fog 1

Number of hours with rain 80

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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WEATHER BUREAU

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** JULY 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 82 | 72 | 77 | 97 | 75 | 92 | .07 |
| 2 | 81 | 73 | 77 | 97 | 77 | 90 | .10 |
| 3 | 88 | 73 | 80 | 97 | 62 | 88 | 0 |
| 4 | 88 | 74 | 81 | 96 | 64 | 88 | .10 |
| 5 | 90 | 75 | 82 | 96 | 61 | 86 | 0 |
| 6 | 86 | 76 | 81 | 98 | 70 | 90 | .42 |
| 7 | 81 | 74 | 78 | 96 | 76 | 93 | .36 |
| 8 | 84 | 74 | 79 | 96 | 71 | 88 | 0 |
| 9 | 89 | 74 | 82 | 96 | 60 | 87 | .19 |
| 10 | 86 | 74 | 80 | 96 | 66 | 91 | .04 |
| 11 | 86 | 74 | 80 | 96 | 66 | 89 | 0 |
| 12 | 87 | 75 | 81 | 96 | 61 | 87 | .12 |
| 13 | 86 | 75 | 80 | 96 | 66 | 90 | .03 |
| 14 | 89 | 74 | 82 | 98 | 61 | 92 | .18 |
| 15 | 86 | 75 | 80 | 98 | 62 | 87 | .04 |
| 16 | 85 | 74 | 80 | 94 | 68 | 86 | T |
| 17 | 87 | 72 | 80 | 94 | 60 | 86 | .07 |
| 18 | 82 | 73 | 78 | 94 | 71 | 90 | .96 |
| 19 | 84 | 73 | 78 | 94 | 62 | 86 | .01 |
| 20 | 87 | 73 | 80 | 96 | 62 | 84 | .31 |
| 21 | 82 | 71 | 76 | 96 | 72 | 90 | .19 |
| 22 | 84 | 71 | 78 | 98 | 72 | 92 | .07 |
| 23 | 84 | 72 | 78 | 100 | 69 | 90 | .71 |
| 24 | 82 | 72 | 77 | 98 | 71 | 90 | 0 |
| 25 | 87 | 71 | 79 | 95 | 54 | 85 | .09 |
| 26 | 89 | 73 | 81 | 94 | 58 | 85 | T |
| 27 | 85 | 73 | 79 | 96 | 64 | 88 | .09 |
| 28 | 89 | 74 | 82 | 96 | 60 | 86 | .72 |
| 29 | 85 | 73 | 79 | 96 | 63 | 88 | .49 |
| 30 | 84 | 73 | 78 | 98 | 73 | 91 | .02 |
| 31 | 86 | 72 | 79 | 98 | 65 | 87 | 0 |
| Sum | 2651 | 2272 | | 2986 | 2042 | | 5.38 |
| Mean | 85.5 | 73.3 | 79.4 | 96.3 | 65.9 | 88.5 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 19 55 | 10.86 | 19 60 | 5.61 |
| 19 56 | 13.88 | 19 61 | 8.40 |
| 19 57 | 10.73 | 19 62 | 5.69 |
| 19 58 | 6.31 | 19 63 | 8.38 |
| 19 59 | 5.80 | 19 64 | 5.38 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.851
Departure from normal +0.020
Highest 29.97 Date 23
Lowest 29.73 Date 5

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.4
Departure from normal -1.0
Highest 90 Date 5
Lowest 72 Date 22

**RAINFALL**
**(Inches)**

Total 5.38
Departure from normal -2.81
Greatest in 24 hours 1.10
Date 28 & 29

**WIND**

Average hourly velocity 4.0 mph.
Prevailing direction [illegible]
Maximum for five minutes 22
mph. from the S on the 26

**SUNSHINE**

Average number hours per day 5.1
Percentage of possible 40

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 2
Cloudy 29
.01 inch of rain or more 23
Thunderstorms 14
Light fog 2
Dense fog 1

Number of hours with rain 79

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** August 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 75 | 81 | 98 | 70 | 88 | T |
| 2 | 87 | 74 | 80 | 98 | 66 | 88 | .01 |
| 3 | 84 | 73 | 78 | 96 | 68 | 95 | 0 |
| 4 | 84 | 74 | 79 | 94 | 65 | 84 | 0 |
| 5 | 90 | 74 | 82 | 96 | 58 | 85 | .03 |
| 6 | 85 | 74 | 80 | 96 | 66 | 86 | T |
| 7 | 88 | 73 | 80 | 98 | 56 | 83 | .07 |
| 8 | 88 | 74 | 81 | 98 | 60 | 86 | .04 |
| 9 | 90 | 75 | 82 | 100 | 62 | 89 | .29 |
| 10 | 88 | 75 | 82 | 98 | 62 | 87 | 0 |
| 11 | 88 | 76 | 82 | 99 | 62 | 89 | .19 |
| 12 | 84 | 73 | 78 | 98 | 76 | 94 | 2.57 |
| 13 | 81 | 73 | 77 | 98 | 79 | 92 | .03 |
| 14 | 88 | 73 | 78 | 98 | 74 | 89 | 0 |
| 15 | 85 | 72 | 78 | 98 | 68 | 94 | 1.61 |
| 16 | 84 | 73 | 78 | 98 | 69 | 91 | .41 |
| 17 | 84 | 73 | 78 | 98 | 70 | 87 | .04 |
| 18 | 84 | 74 | 79 | 98 | 72 | 88 | .15 |
| 19 | 86 | 72 | 79 | 98 | 70 | 88 | .05 |
| 20 | 89 | 73 | 81 | 98 | 64 | 85 | 0 |
| 21 | 91 | 73 | 82 | 98 | 62 | 86 | .80 |
| 22 | 83 | 74 | 78 | 97 | 74 | 90 | 0 |
| 23 | 85 | 73 | 79 | 99 | 72 | 90 | 1.01 |
| 24 | 85 | 72 | 78 | 99 | 68 | 91 | .14 |
| 25 | 84 | 72 | 78 | 98 | 73 | 89 | 0 |
| 26 | 82 | 74 | 78 | 98 | 77 | 98 | .36 |
| 27 | 85 | 72 | 78 | 97 | 70 | 90 | .34 |
| 28 | 85 | 71 | 78 | 97 | 72 | 87 | .01 |
| 29 | 83 | 74 | 78 | 97 | 70 | 89 | 0 |
| 30 | 85 | 71 | 78 | 99 | 63 | 90 | .69 |
| 31 | 86 | 72 | 79 | 98 | 70 | 89 | .06 |
| Sum | 2652 | 2271 | | 3030 | 2108 | | 9.60 |
| Mean | 85.5 | 73.2 | 79.4 | 97.7 | 68.0 | 88.4 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1955 | 11.38 | 1960 | 11.74 |
| 1956 | 11.51 | 1961 | 5.92 |
| 1957 | 10.06 | 1962 | 6.43 |
| 1958 | 9.65 | 1963 | 6.06 |
| 1959 | 7.62 | 1964 | 9.60 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.849
Departure from normal + .017
Highest 29.94 Date 25
Lowest 29.74 Date 30

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.4
Departure from normal -0.9
Highest 91 Date 21
Lowest 71 Date 28

### RAINFALL
(Inches)

Total 9.60
Departure from normal +1.81
Greatest in 24 hours 3.32
Date 12-13

### WIND

Average hourly velocity 4.3 mph.
Prevailing direction NW
Maximum for five minutes 18
mph. from the NW on the 1

### SUNSHINE

Average number hours per day 4.8
Percentage of possible 39

### NUMBER OF DAYS

Clear 0
Partly Cloudy 3
Cloudy 28
.01 inch of rain or more 21
Thunderstorms 11
Light fog 1
Dense fog 0

Number of hours with rain 72

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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** September 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 83 | 71 | 77 | 99 | 74 | 92 | .16 |
| 2 | 86 | 73 | 80 | 100 | 63 | 89 | .01 |
| 3 | 88 | 70 | 79 | 99 | 71 | 91 | 0 |
| 4 | 86 | 72 | 79 | 99 | 74 | 93 | .03 |
| 5 | 84 | 72 | 78 | 99 | 74 | 90 | 0 |
| 6 | 83 | 70 | 76 | 98 | 76 | 95 | .74 |
| 7 | 85 | 70 | 78 | 99 | 70 | 88 | 0 |
| 8 | 88 | 73 | 80 | 99 | 62 | 92 | 1.04 |
| 9 | 85 | 73 | 79 | 98 | 72 | 91 | .09 |
| 10 | 88 | 73 | 80 | 98 | 63 | 88 | T |
| 11 | 88 | 72 | 80 | 98 | 66 | 91 | .01 |
| 12 | 88 | 74 | 81 | 98 | 66 | 88 | 0 |
| 13 | 90 | 75 | 82 | 98 | 59 | 90 | .79 |
| 14 | 84 | 74 | 79 | 98 | 69 | 88 | .03 |
| 15 | 91 | 73 | 82 | 98 | 64 | 89 | .48 |
| 16 | 88 | 74 | 81 | 99 | 68 | 92 | .07 |
| 17 | 84 | 74 | 79 | 99 | 82 | 93 | .03 |
| 18 | 90 | 72 | 81 | 100 | 62 | 91 | 1.06 |
| 19 | 81 | 73 | 77 | 99 | 73 | 92 | T |
| 20 | 85 | 74 | 80 | 98 | 71 | 90 | .02 |
| 21 | 89 | 74 | 82 | 98 | 66 | 85 | .37 |
| 22 | 88 | 75 | 82 | 99 | 71 | 89 | .26 |
| 23 | 82 | 72 | 77 | 99 | 80 | 94 | 1.19 |
| 24 | 85 | 73 | 80 | 99 | 73 | 89 | .04 |
| 25 | 87 | 72 | 80 | 98 | 68 | 89 | .07 |
| 26 | 88 | 75 | 82 | 98 | 55 | 86 | .15 |
| 27 | 84 | 74 | 79 | 98 | 74 | 91 | 0 |
| 28 | 81 | 74 | 78 | 99 | 75 | 93 | .27 |
| 29 | 86 | 72 | 79 | 99 | 67 | 88 | 0 |
| 30 | 88 | 73 | 80 | 98 | 67 | 88 | T |
| 31 | --- | --- | --- | --- | --- | --- | --- |
| Sum | 2583 | 2188 | | 2958 | 2075 | | 6.91 |
| Mean | 86.1 | 72.9 | 79.5 | 98.6 | 69.2 | 90.2 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1955 | 8.28 | 1960 | 6.03 |
| 1956 | 5.00 | 1961 | 7.19 |
| 1957 | 3.46 | 1962 | 5.39 |
| 1958 | 12.74 | 1963 | 5.17 |
| 1959 | 5.79 | 1964 | 6.91 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean: 29.844
Departure from normal: +.019
Highest: 29.93 Date: 12
Lowest: 29.75 Date: 1

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean: 79.5
Departure from normal: -0.3
Highest: 91 Date: 15
Lowest: 70 Date: 3

**RAINFALL**
**(Inches)**

Total: 6.91
Departure from normal: -.85
Greatest in 24 hours: 1.21
Date: 23 - 24

**WIND**

Average hourly velocity: 3.9 mph.
Prevailing direction: NW
Maximum for five minutes: 19
mph. from the N on the 15

**SUNSHINE**

Average number hours per day: 5.0
Percentage of possible: 41

**NUMBER OF DAYS**

Clear: 0
Partly Cloudy: 8
Cloudy: 22
.01 inch of rain or more: 21
Thunderstorms: 16
Light fog: 0
Dense fog: 0
Number of hours with rain: 65

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** OCTOBER 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 74 | 80 | 98 | 72 | 91 | 0 |
| 2 | 86 | 75 | 80 | 99 | 74 | 91 | .35 |
| 3 | 86 | 73 | 80 | 98 | 70 | 89 | T |
| 4 | 87 | 76 | 82 | 98 | 66 | 88 | 0 |
| 5 | 90 | 74 | 82 | 98 | 58 | 85 | 0 |
| 6 | 88 | 76 | 82 | 97 | 82 | 91 | .07 |
| 7 | 86 | 74 | 80 | 98 | 90 | 94 | 2.18 |
| 8 | 85 | 72 | 78 | 98 | 66 | 89 | .04 |
| 9 | 86 | 74 | 80 | 99 | 70 | 90 | .09 |
| 10 | 85 | 73 | 79 | 99 | 69 | 88 | 1.75 |
| 11 | 84 | 72 | 78 | 97 | 69 | 87 | .01 |
| 12 | 80 | 74 | 77 | 98 | 78 | 91 | .68 |
| 13 | 80 | 75 | 78 | 98 | 75 | 91 | .91 |
| 14 | 76 | 73 | 74 | 99 | 86 | 97 | .46 |
| 15 | 80 | 72 | 76 | 99 | 80 | 92 | .09 |
| 16 | 84 | 73 | 78 | 99 | 69 | 87 | .05 |
| 17 | 86 | 71 | 78 | 98 | 62 | 88 | 0 |
| 18 | 84 | 73 | 78 | 96 | 70 | 88 | .03 |
| 19 | 82 | 71 | 76 | 97 | 71 | 88 | .13 |
| 20 | 79 | 71 | 75 | 96 | 76 | 92 | 3.06 |
| 21 | 84 | 71 | 78 | 96 | 67 | 86 | 0 |
| 22 | 85 | 71 | 78 | 99 | 67 | 90 | .20 |
| 23 | 83 | 72 | 78 | 98 | 72 | 90 | .07 |
| 24 | 80 | 73 | 81 | 96 | 60 | 86 | .01 |
| 25 | 79 | 73 | 76 | 97 | 82 | 90 | .02 |
| 26 | 84 | 72 | 78 | 97 | 70 | 88 | 0 |
| 27 | 82 | 74 | 78 | 96 | 74 | 91 | .02 |
| 28 | 86 | 73 | 80 | 96 | 70 | 87 | .01 |
| 29 | 84 | 72 | 78 | 96 | 68 | 87 | .01 |
| 30 | 83 | 73 | 78 | 96 | 66 | 88 | .14 |
| 31 | 87 | 72 | 80 | 96 | 60 | 85 | .17 |
| Sum | 2605 | 2262 | | 3022 | 2209 | | 10.55 |
| Mean | 84.0 | 73.0 | 78.5 | 97.5 | 71.3 | 89.3 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1955 | 6.46 | 1960 | 5.79 |
| 1956 | 13.44 | 1961 | 10.98 |
| 1957 | 9.78 | 1962 | 13.45 |
| 1958 | 9.96 | 1963 | 7.45 |
| 1959 | 10.58 | 1964 | 10.55 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.851
Departure from normal: + 0.024
Highest: 29.98 Date: 14
Lowest: 29.73 Date: 28

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 78.5
Departure from normal: - 0.7
Highest: 90 Date: 5
Lowest: 71 Date: 19

### RAINFALL
(Inches)

Total: 10.55
Departure from normal: - .07
Greatest in 24 hours: 3.07
Date: 19-20

### WIND

Average hourly velocity: 3.5 mph.
Prevailing direction: NW
Maximum for five minutes: 21
mph. from the NW on the 10

### SUNSHINE

Average number hours per day: 4.3
Percentage of possible: 36

### NUMBER OF DAYS

Clear: 0
Partly Cloudy: 9
Cloudy: 22
.01 inch of rain or more: 24
Thunderstorms: 11
Light fog: 1
Dense fog: 0

Number of hours with rain: 92

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ENGINEERING AND CONSTRUCTION BUREAU
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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** NOVEMBER 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 72 | 81 | 95 | 56 | 81 | .01 |
| 2 | 90 | 72 | 81 | 100 | 59 | 87 | .33 |
| 3 | 82 | 72 | 77 | 98 | 74 | 94 | 1.00 |
| 4 | 82 | 71 | 76 | 98 | 70 | 94 | 1.49 |
| 5 | 84 | 72 | 78 | 98 | 71 | 91 | .51 |
| 6 | 83 | 73 | 78 | 98 | 70 | 92 | 1.08 |
| 7 | 83 | 71 | 77 | 98 | 71 | 88 | 0 |
| 8 | 85 | 74 | 80 | 97 | 72 | 87 | 0 |
| 9 | 88 | 74 | 81 | 97 | 66 | 88 | .04 |
| 10 | 89 | 73 | 81 | 97 | 63 | 89 | .44 |
| 11 | 88 | 74 | 81 | 96 | 62 | 86 | 0 |
| 12 | 87 | 74 | 80 | 96 | 65 | 89 | .34 |
| 13 | 84 | 73 | 78 | 97 | 70 | 91 | 0 |
| 14 | 86 | 73 | 80 | 96 | 70 | 92 | .77 |
| 15 | 84 | 73 | 78 | 97 | 72 | 92 | .07 |
| 16 | 87 | 73 | 80 | 97 | 64 | 88 | .10 |
| 17 | 85 | 71 | 78 | 96 | 65 | 90 | 1.03 |
| 18 | 85 | 71 | 78 | 95 | 60 | 87 | 0 |
| 19 | 90 | 72 | 81 | 95 | 57 | 82 | .13 |
| 20 | 90 | 73 | 82 | 98 | 56 | 87 | .18 |
| 21 | 88 | 75 | 82 | 98 | 67 | 93 | 1.07 |
| 22 | 81 | 75 | 78 | 97 | 82 | 94 | .01 |
| 23 | 87 | 73 | 80 | 96 | 68 | 90 | .02 |
| 24 | 86 | 73 | 80 | 94 | 62 | 87 | .29 |
| 25 | 88 | 74 | 81 | 96 | 63 | 85 | .07 |
| 26 | 88 | 74 | 81 | 95 | 60 | 83 | .02 |
| 27 | 90 | 73 | 82 | 98 | 54 | 80 | 0 |
| 28 | 85 | 73 | 79 | 95 | 69 | 88 | 1.56 |
| 29 | 85 | 73 | 79 | 95 | 67 | 90 | .49 |
| 30 | 88 | 72 | 80 | 95 | 59 | 86 | .16 |
| 31 | — | — | — | — | — | — | — |
| Sum | 2598 | 2186 | | 2892 | 1972 | | 12.01 |
| Mean | 86.3 | 72.9 | 79.6 | 96.4 | 65.7 | 88.5 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1955 | 15.75 | 1960 | 11.14 |
| 1956 | 10.17 | 1961 | 8.49 |
| 1957 | [illegible] | 1962 | 12.59 |
| 1958 | 18.65 | 1963 | 10.49 |
| 1959 | [illegible] | 1964 | 12.01 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.825
Departure from normal + 0.005
Highest 29.93 Date 29
Lowest 29.70 Date 19

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.6
Departure from normal + 0.4
Highest 90 Date 27
Lowest 70 Date 4

### RAINFALL
(Inches)

Total 12.01
Departure from normal + 1.73
Greatest in 24 hours 2.02
Date 28 - 29

### WIND

Average hourly velocity 4.5 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the NW on the 1

### SUNSHINE

Average number hours per day 4.8
Percentage of possible 41

### NUMBER OF DAYS

Clear 0
Partly Cloudy 12
Cloudy 18
.01 inch of rain or more 24
Thunderstorms 15
Light fog 0
Dense fog 0

Number of hours with rain 81

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** December 1964

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 70 | 78 | 94 | 62 | 89 | .76 |
| 2 | 88 | 71 | 80 | 95 | 56 | 81 | 0 |
| 3 | 89 | 74 | 82 | 94 | 61 | 82 | T |
| 4 | 87 | 73 | 80 | 94 | 66 | 87 | .19 |
| 5 | 85 | 74 | 80 | 96 | 69 | 89 | .01 |
| 6 | 87 | 74 | 80 | 96 | 62 | 84 | 0 |
| 7 | 88 | 72 | 80 | 96 | 56 | 82 | 0 |
| 8 | 87 | 71 | 79 | 96 | 58 | 88 | .01 |
| 9 | 90 | 70 | 80 | 97 | 48 | 78 | 0 |
| 10 | 86 | 71 | 78 | 96 | 64 | 85 | .43 |
| 11 | 87 | 72 | 80 | 96 | 61 | 89 | 1.43 |
| 12 | 87 | 72 | 80 | 95 | 60 | 84 | .01 |
| 13 | 86 | 74 | 80 | 94 | 64 | 86 | .01 |
| 14 | 88 | 72 | 80 | 96 | 56 | 79 | 0 |
| 15 | 89 | 72 | 80 | 95 | 46 | 74 | 0 |
| 16 | 88 | 70 | 79 | 94 | 55 | 79 | T |
| 17 | 88 | 71 | 80 | 94 | 54 | 80 | .01 |
| 18 | 87 | 72 | 80 | 94 | 55 | 78 | .02 |
| 19 | 86 | 72 | 79 | 94 | 54 | 77 | 0 |
| 20 | 87 | 71 | 79 | 96 | 52 | 77 | 0 |
| 21 | 89 | 70 | 80 | 96 | 50 | 77 | 0 |
| 22 | 88 | 70 | 79 | 95 | 50 | 78 | 0 |
| 23 | 88 | 69 | 78 | 96 | 52 | 79 | 0 |
| 24 | 86 | 70 | 78 | 95 | 56 | 82 | 0 |
| 25 | 85 | 70 | 78 | 95 | 58 | 80 | 0 |
| 26 | 86 | 70 | 78 | 96 | 60 | 85 | .24 |
| 27 | 87 | 70 | 78 | 95 | 56 | 82 | 0 |
| 28 | 88 | 70 | 79 | 94 | 43 | 76 | 0 |
| 29 | 89 | 68 | 78 | 94 | 44 | 73 | 0 |
| 30 | 90 | 68 | 79 | 92 | 44 | 72 | 0 |
| 31 | 88 | 70 | 79 | 93 | 50 | 74 | 0 |
| Sum | 2710 | 2203 | | 2943 | 1722 | | 3.12 |
| Mean | 87.4 | 71.1 | 79.2 | 94.9 | 55.5 | 80.8 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 19 55 | 2.96 | 19 60 | 8.46 |
| 19 56 | 2.68 | 19 61 | 4.74 |
| 19 57 | .41 | 19 62 | 8.31 |
| 19 58 | 5.73 | 19 63 | .00 |
| 19 59 | 6.46 | 19 64 | 3.12 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.843
Departure from normal + 0.020
Highest 29.97 Date 28
Lowest 29.73 Date 7

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.2
Departure from normal - 0.7
Highest 90 Date 94
Lowest 68 Date 29

### RAINFALL
(Inches)

Total 3.12
Departure from normal -1.86
Greatest in 24 hours 1.47
Date 10-11

### WIND

Average hourly velocity 4.7 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the N on the 11

### SUNSHINE

Average number hours per day 7.3
Percentage of possible 63

### NUMBER OF DAYS

Clear 9
Partly Cloudy 15
Cloudy 7
.01 inch of rain or more 11
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 20

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** JANUARY 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 70 | 80 | 93 | 52 | 77 | 0 |
| 2 | 89 | 71 | 80 | 94 | 53 | 78 | 0 |
| 3 | 89 | 71 | 80 | 93 | 57 | 81 | .13 |
| 4 | 88 | 72 | 80 | 94 | 59 | 87 | .48 |
| 5 | 90 | 71 | 80 | 94 | 54 | 78 | 0 |
| 6 | 90 | 72 | 81 | 93 | 50 | 76 | 0 |
| 7 | 89 | 73 | 81 | 92 | 52 | 74 | 0 |
| 8 | 89 | 70 | 80 | 94 | 50 | 75 | 0 |
| 9 | 90 | 69 | 80 | 94 | 49 | 75 | 0 |
| 10 | 88 | 70 | 79 | 93 | 53 | 76 | 0 |
| 11 | 89 | 70 | 80 | 94 | 50 | 75 | 0 |
| 12 | 87 | 72 | 80 | 91 | 64 | 79 | 0 |
| 13 | 90 | 73 | 82 | 94 | 56 | 79 | 0 |
| 14 | 88 | 74 | 81 | 95 | 61 | 80 | 0 |
| 15 | 86 | 72 | 79 | 96 | 64 | 82 | T |
| 16 | 81 | 74 | 78 | 96 | 74 | 87 | .05 |
| 17 | 89 | 73 | 81 | 97 | 55 | 80 | .01 |
| 18 | 86 | 74 | 80 | 89 | 60 | 81 | .04 |
| 19 | 88 | 72 | 80 | 96 | 54 | 78 | .01 |
| 20 | 90 | 72 | 81 | 94 | 51 | 74 | 0 |
| 21 | 80 | 73 | 77 | 95 | 78 | 90 | .06 |
| 22 | 88 | 70 | 79 | 96 | 53 | 79 | 0 |
| 23 | 89 | 70 | 80 | 95 | 56 | 81 | .09 |
| 24 | 87 | 71 | 79 | 94 | 59 | 86 | .48 |
| 25 | 88 | 71 | 80 | 95 | 50 | 82 | 0 |
| 26 | 89 | 72 | 80 | 94 | 57 | 81 | T |
| 27 | 88 | 69 | 78 | 94 | 58 | 74 | 0 |
| 28 | 90 | 68 | 79 | 94 | 47 | 74 | 0 |
| 29 | 89 | 69 | 79 | 94 | 51 | 78 | 0 |
| 30 | 87 | 69 | 78 | 93 | 53 | 76 | 0 |
| 31 | 87 | 68 | 77 | 92 | 46 | 73 | 0 |
| Sum | 2737 | 2205 | | 2912 | 1734 | | 1.35 |
| Mean | 88.0 | 71.1 | 79.6 | 93.9 | 55.9 | 79.0 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1956 | 2.63 | 1961 | .66 |
| 1957 | .44 | 1962 | .60 |
| 1958 | .79 | 1963 | 1.94 |
| 1959 | 1.65 | 1964 | T |
| 1960 | 4.47 | 1965 | 1.35 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.856
Departure from normal + 0.013
Highest 29.98 Date 28
Lowest 29.73 Date 14

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.6
Departure from normal - 0.4
Highest 90 Date 28
Lowest 68 Date 31

### RAINFALL
(Inches)

Total 1.35
Departure from normal + .21
Greatest in 24 hours .61
Date 3 - 4

### WIND

Average hourly velocity 6.3 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the N on the 18

### SUNSHINE

Average number hours per day 6.9
Percentage of possible 59

### NUMBER OF DAYS

Clear 9
Partly Cloudy 11
Cloudy 11
.01 inch of rain or more 9
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 17

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, C. Z. Month: MARCH 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 70 | 81 | 95 | 43 | 72 | 0 |
| 2 | 91 | 70 | 81 | 91 | 46 | 70 | |
| 3 | 92 | 72 | 82 | 90 | 50 | 74 | |
| 4 | 89 | 73 | 81 | 91 | 53 | 74 | |
| 5 | 93 | 73 | 83 | 92 | 44 | 73 | |
| 6 | 89 | 71 | 80 | 92 | 49 | 70 | |
| 7 | 89 | 74 | 82 | 85 | 49 | 69 | |
| 8 | 86 | 72 | 79 | 84 | 56 | 72 | |
| 9 | 90 | 74 | 82 | 84 | 52 | 71 | |
| 10 | 92 | 71 | 82 | 92 | 47 | 71 | |
| 11 | 92 | 73 | 83 | 89 | 47 | 71 | |
| 12 | 92 | 73 | 83 | 93 | 49 | 73 | |
| 13 | 90 | 73 | 82 | 92 | 52 | 75 | |
| 14 | 88 | 74 | 81 | 93 | 58 | 76 | |
| 15 | 93 | 72 | 82 | 94 | 49 | 72 | |
| 16 | 91 | 74 | 82 | 86 | 44 | 69 | |
| 17 | 88 | 75 | 82 | 88 | 52 | 73 | |
| 18 | 90 | 70 | 80 | 93 | 47 | 71 | |
| 19 | 92 | 72 | 82 | 93 | 47 | 72 | |
| 20 | 90 | 75 | 82 | 87 | 47 | 69 | |
| 21 | 92 | 76 | 84 | 85 | 50 | 69 | |
| 22 | 92 | 75 | 84 | 86 | 48 | 70 | |
| 23 | 90 | 76 | 83 | 84 | 51 | 70 | |
| 24 | 92 | 77 | 84 | 81 | 50 | 71 | |
| 25 | 92 | 76 | 84 | 87 | 50 | 72 | |
| 26 | 92 | 74 | 83 | 93 | 46 | 72 | |
| 27 | 92 | 74 | 83 | 93 | 45 | 70 | |
| 28 | 91 | 73 | 82 | 92 | 48 | 72 | |
| 29 | 92 | 73 | 82 | 91 | 48 | 72 | |
| 30 | 93 | 73 | 83 | 91 | 42 | 70 | |
| 31 | 92 | 72 | 82 | 93 | 42 | 72 | |
| Sum | 2819 | 2270 | | 2700 | 1500 | | 0 |
| Mean | 90.9 | 73.2 | 82.0 | 89.7 | 48.4 | 71.4 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 19 56 | .40 | 19 61 | .20 |
| 19 57 | T | 19 62 | .17 |
| 19 58 | T | 19 63 | .12 |
| 19 59 | T | 19 64 | T |
| 19 60 | .56 | 19 65 | 0 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.861
Departure from normal + 0.018
Highest 29.98 Date 7
Lowest 29.69 Date 1

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.0
Departure from normal + 0.4
Highest 93 Date 15
Lowest 70 Date 1

### RAINFALL
(Inches)

Total 0
Departure from normal - .60
Greatest in 24 hours 0
Date -

### WIND

Average hourly velocity 10.2 mph.
Prevailing direction NW
Maximum for five minutes 26
mph. from the N on the 12

### SUNSHINE

Average number hours per day 8.7
Percentage of possible 72

### NUMBER OF DAYS

Clear 13
Partly Cloudy 15
Cloudy 3
.01 inch of rain or more 0
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 0

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

LIBRARY
1965
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** APRIL 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 74 | 81 | 89 | 57 | 73 | 0 |
| 2 | 93 | 77 | 85 | 89 | 54 | 74 | .01 |
| 3 | 92 | 76 | 84 | 88 | 48 | 72 | T |
| 4 | 92 | 73 | 82 | 92 | 48 | 74 | 0 |
| 5 | 91 | 73 | 82 | 95 | 51 | 74 | 0 |
| 6 | 92 | 74 | 83 | 91 | 47 | 72 | 0 |
| 7 | 91 | 72 | 82 | 93 | 48 | 72 | 0 |
| 8 | 95 | 73 | 84 | 92 | 45 | 71 | 0 |
| 9 | 91 | 73 | 82 | 93 | 49 | 72 | 0 |
| 10 | 89 | 72 | 81 | 94 | 56 | 81 | .02 |
| 11 | 91 | 73 | 82 | 91 | 55 | 74 | 0 |
| 12 | 91 | 72 | 82 | 91 | 51 | 73 | 0 |
| 13 | 90 | 73 | 82 | 89 | 49 | 71 | 0 |
| 14 | 92 | 73 | 83 | 91 | 43 | 72 | 0 |
| 15 | 92 | 70 | 81 | 93 | 43 | 70 | 0 |
| 16 | 93 | 68 | 80 | 94 | 40 | 70 | 0 |
| 17 | 89 | 70 | 80 | 92 | 52 | 73 | 0 |
| 18 | 92 | 71 | 82 | 91 | 40 | 66 | 0 |
| 19 | 94 | 72 | 83 | 91 | 41 | 68 | 0 |
| 20 | 90 | 71 | 80 | 91 | 50 | 74 | .23 |
| 21 | 92 | 74 | 83 | 90 | 51 | 74 | T |
| 22 | 94 | 74 | 84 | 90 | 50 | 73 | 0 |
| 23 | 94 | 77 | 86 | 90 | 46 | 71 | 0 |
| 24 | 93 | 76 | 84 | 87 | 43 | 67 | 0 |
| 25 | 94 | 72 | 83 | 93 | 42 | 70 | 0 |
| 26 | 91 | 73 | 82 | 91 | 51 | 73 | 0 |
| 27 | 92 | 75 | 84 | 90 | 48 | 73 | 0 |
| 28 | 92 | 75 | 84 | 90 | 47 | 70 | 0 |
| 29 | 94 | 74 | 84 | 88 | 46 | 69 | 0 |
| 30 | 94 | 74 | 84 | 91 | 47 | 72 | 0 |
| 31 | — | — | — | — | — | — | — |
| Sum | 2758 | 2196 | | 2730 | 1428 | | .26 |
| Mean | 91.9 | 73.1 | 82.5 | 91.0 | 47.6 | 71.9 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 19 56 | 2.23 | 19 61 | 2.09 |
| 19 57 | 1.85 | 19 62 | .43 |
| 19 58 | 3.01 | 19 63 | 6.05 |
| 19 59 | 1.46 | 19 64 | 6.52 |
| 19 60 | 6.53 | 19 65 | .26 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.872
Departure from normal + .042
Highest 29.97 Date 28
Lowest 29.76 Date 10

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.5
Departure from normal + 0.3
Highest 95 Date 8
Lowest 68 Date 16

### RAINFALL
(Inches)

Total .26
Departure from normal - 2.45
Greatest in 24 hours .23
Date 20

### WIND

Average hourly velocity 8.4 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the E on the 5

### SUNSHINE

Average number hours per day 8.2
Percentage of possible 67

### NUMBER OF DAYS

Clear 6
Partly Cloudy 19
Cloudy 5
.01 inch of rain or more 3
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 4

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, C. Z. Month: MAY 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 73 | 83 | 93 | 50 | 74 | 0 |
| 2 | 91 | 75 | 83 | 91 | 57 | 75 | T |
| 3 | 93 | 77 | 85 | 92 | 53 | 79 | .01 |
| 4 | 90 | 77 | 84 | 93 | 63 | 81 | .02 |
| 5 | 95 | 77 | 86 | 93 | 53 | 76 | T |
| 6 | 92 | 77 | 85 | 92 | 57 | 76 | T |
| 7 | 92 | 79 | 86 | 89 | 54 | 74 | 0 |
| 8 | 90 | 77 | 84 | 95 | 59 | 84 | .10 |
| 9 | 83 | 75 | 79 | 93 | 75 | 90 | .47 |
| 10 | 86 | 74 | 80 | 97 | 62 | 88 | .06 |
| 11 | 81 | 75 | 78 | 93 | 78 | 90 | .70 |
| 12 | 82 | 73 | 78 | 96 | 73 | 90 | .72 |
| 13 | 88 | 74 | 81 | 92 | 62 | 80 | T |
| 14 | 87 | 72 | 80 | 92 | 62 | 81 | .27 |
| 15 | 87 | 74 | 80 | 90 | 62 | 85 | 1.69 |
| 16 | 89 | 74 | 82 | 93 | 60 | 83 | .14 |
| 17 | 94 | 75 | 84 | 91 | 53 | 75 | 0 |
| 18 | 90 | 75 | 82 | 95 | 62 | 82 | T |
| 19 | 89 | 75 | 82 | 96 | 62 | 83 | 0 |
| 20 | 92 | 76 | 84 | 94 | 54 | 80 | T |
| 21 | 89 | 76 | 82 | 94 | 62 | 83 | T |
| 22 | 89 | 76 | 82 | 98 | 67 | 90 | .02 |
| 23 | 88 | 75 | 82 | 99 | 70 | 93 | 2.37 |
| 24 | 88 | 74 | 81 | 98 | 66 | 89 | 0 |
| 25 | 91 | 74 | 82 | 98 | 62 | 85 | 0 |
| 26 | 90 | 75 | 82 | 98 | 64 | 91 | .23 |
| 27 | 86 | 74 | 80 | 98 | 67 | 86 | 0 |
| 28 | 87 | 76 | 82 | 97 | 71 | 88 | .11 |
| 29 | 85 | 73 | 79 | 98 | 75 | 94 | 4.60 |
| 30 | 78 | 73 | 76 | 98 | 90 | 96 | 1.63 |
| 31 | 86 | 73 | 80 | 99 | 67 | 87 | 0 |
| Sum | 2740 | 2323 | | 2935 | 1972 | | 13.14 |
| Mean | 88.4 | 74.9 | 81.6 | 94.7 | 63.6 | 84.1 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1956 | 10.81 | 1961 | 5.02 |
| 1957 | 9.18 | 1962 | 5.94 |
| 1958 | 10.47 | 1963 | 5.00 |
| 1959 | 9.23 | 1964 | 6.72 |
| 1960 | 7.28 | 1965 | 13.14 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.819
Departure from normal - 0.006
Highest 29.93 Date 12
Lowest 29.66 Date 25

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.6
Departure from normal + 0.7
Highest 95 Date 5
Lowest 72 Date 14

### RAINFALL
(Inches)

Total 13.14
Departure from normal + 5.17
Greatest in 24 hours 6.18
Date 29 - 30

### WIND

Average hourly velocity 5.4 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the N on the 6

### SUNSHINE

Average number hours per day 5.8
Percentage of possible 46

### NUMBER OF DAYS

Clear 0
Partly Cloudy 9
Cloudy 22
.01 inch of rain or more 16
Thunderstorms 9
Light fog 0
Dense fog 0

Number of hours with rain 66

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JUNE 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 76 | 82 | 99 | 70 | 87 | 0 |
| 2 | 92 | 75 | 84 | 99 | 63 | 85 | .02 |
| 3 | 88 | 76 | 82 | 100 | 71 | 93 | .23 |
| 4 | 90 | 76 | 83 | 100 | 69 | 93 | 0 |
| 5 | 92 | 76 | 84 | 100 | 64 | 93 | .03 |
| 6 | 84 | 72 | 78 | 100 | 83 | 96 | .14 |
| 7 | 85 | 72 | 78 | 100 | 79 | 91 | .02 |
| 8 | 81 | 74 | 78 | 92 | 72 | 87 | T |
| 9 | 87 | 72 | 80 | 93 | 67 | 86 | 0 |
| 10 | 90 | 74 | 82 | 92 | 60 | 84 | 0 |
| 11 | 86 | 77 | 82 | 93 | 72 | 86 | 0 |
| 12 | 82 | 74 | 78 | 92 | 76 | 90 | 1.14 |
| 13 | 89 | 72 | 80 | 98 | 65 | 87 | .07 |
| 14 | 88 | 75 | 82 | 94 | 66 | 84 | 0 |
| 15 | 90 | 76 | 83 | 92 | 62 | 84 | T |
| 16 | 88 | 76 | 82 | 93 | 67 | 87 | T |
| 17 | 88 | 75 | 82 | 93 | 66 | 85 | 0 |
| 18 | 82 | 75 | 78 | 92 | 80 | 87 | 0 |
| 19 | 91 | 75 | 83 | 92 | 64 | 85 | .02 |
| 20 | 90 | 75 | 82 | 92 | 60 | 81 | 0 |
| 21 | 91 | 72 | 82 | 91 | 58 | 85 | .85 |
| 22 | 86 | 74 | 80 | 95 | 72 | 88 | 0 |
| 23 | 88 | 75 | 82 | 93 | 63 | 87 | .10 |
| 24 | 87 | 74 | 80 | 92 | 67 | 84 | 0 |
| 25 | 83 | 75 | 79 | 94 | 64 | 88 | 0 |
| 26 | 86 | 74 | 80 | 93 | 68 | 89 | 1.90 |
| 27 | 86 | 73 | 80 | 97 | 64 | 87 | T |
| 28 | 83 | 73 | 78 | 95 | 74 | 88 | 0 |
| 29 | 88 | 74 | 81 | 97 | 66 | 87 | .37 |
| 30 | 85 | 75 | 80 | 97 | 74 | 93 | .02 |
| 31 | --- | --- | --- | --- | --- | --- | --- |
| Sum | 2614 | 2232 | | 2850 | 2046 | | 4.91 |
| Mean | 87.1 | 74.4 | 80.8 | 95.0 | 68.2 | 87.6 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1956 | 10.10 | 1961 | 10.72 |
| 1957 | 5.71 | 1962 | 10.20 |
| 1958 | 5.50 | 1963 | 7.35 |
| 1959 | 4.37 | 1964 | 6.07 |
| 1960 | 5.36 | 1965 | 4.91 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.835
Departure from normal: + 0.006
Highest: 29.93 Date: 27
Lowest: 29.73 Date: 6

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 80.8
Departure from normal: + 0.6
Highest: 92 Date: 5
Lowest: 72 Date: 7

### RAINFALL
(Inches)

Total: 4.91
Departure from normal: -3.10
Greatest in 24 hours: 1.90
Date: 26

### WIND

Average hourly velocity: 5.1 mph.
Prevailing direction: NW
Maximum for five minutes: 15
mph. from the NE on the 26

### SUNSHINE

Average number hours per day: 3.9
Percentage of possible: 31

### NUMBER OF DAYS

Clear: 0
Partly Cloudy: 2
Cloudy: 28
.01 inch of rain or more: 13
Thunderstorms: 10
Light fog: 0
Dense fog: 0

Number of hours with rain: 31

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JULY 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 74 | 80 | 95 | 75 | 91 | .01 |
| 2 | 89 | 75 | 82 | 95 | 69 | 89 | .04 |
| 3 | 83 | 73 | 78 | 97 | 70 | 90 | .10 |
| 4 | 88 | 73 | 80 | 95 | 70 | 86 | 0 |
| 5 | 88 | 74 | 81 | 94 | 66 | 89 | .17 |
| 6 | 88 | 75 | 82 | 95 | 67 | 88 | .13 |
| 7 | 87 | 74 | 80 | 95 | 70 | 86 | T |
| 8 | 91 | 74 | 82 | 97 | 62 | 84 | .01 |
| 9 | 93 | 74 | 84 | 97 | 56 | 83 | T |
| 10 | 91 | 75 | 83 | 96 | 64 | 85 | 0 |
| 11 | 90 | 75 | 82 | 96 | 64 | 86 | 0 |
| 12 | 90 | 75 | 82 | 96 | 65 | 86 | .23 |
| 13 | 88 | 75 | 82 | 97 | 68 | 87 | 0 |
| 14 | 90 | 75 | 82 | 97 | 61 | 84 | 0 |
| 15 | 89 | 76 | 82 | 98 | 67 | 89 | .35 |
| 16 | 91 | 75 | 83 | 98 | 61 | 88 | 0 |
| 17 | 91 | 76 | 84 | 97 | 63 | 83 | 0 |
| 18 | 91 | 76 | 84 | 95 | 61 | 85 | .09 |
| 19 | 92 | 75 | 84 | 95 | 60 | 85 | .06 |
| 20 | 92 | 75 | 84 | 94 | 63 | 84 | 0 |
| 21 | 90 | 76 | 83 | 95 | 67 | 87 | T |
| 22 | 89 | 75 | 82 | 95 | 66 | 86 | .07 |
| 23 | 80 | 70 | 75 | 99 | 80 | 93 | .77 |
| 24 | 91 | 72 | 82 | 96 | 64 | 86 | .02 |
| 25 | 85 | 76 | 80 | 95 | 73 | 90 | .02 |
| 26 | 89 | 75 | 82 | 96 | 67 | 88 | .23 |
| 27 | 90 | 75 | 82 | 96 | 65 | 89 | .29 |
| 28 | 86 | 74 | 80 | 96 | 74 | 89 | T |
| 29 | 86 | 75 | 80 | 95 | 72 | 88 | T |
| 30 | 88 | 73 | 80 | 95 | 68 | 91 | 1.05 |
| 31 | 88 | 73 | 80 | 98 | 63 | 89 | 0 |
| Sum | 2751 | 2308 | | 2975 | 2061 | | 3.64 |
| Mean | 88.7 | 74.5 | 81.6 | 96.0 | 66.5 | 87.2 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1956 | 13.08 | 1961 | 8.40 |
| 1957 | 10.73 | 1962 | 5.69 |
| 1958 | 6.31 | 1963 | 8.38 |
| 1959 | 5.59 | 1964 | 5.38 |
| 1960 | 5.61 | 1965 | 3.64 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.814
Departure from normal - 0.017
Highest 29.94 Date 31st
Lowest 29.68 Date 19th

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.6
Departure from normal + 1.2
Highest 93 Date 9th
Lowest 70 Date 23d

### RAINFALL
(Inches)

Total 3.64
Departure from normal -3.70
Greatest in 24 hours 1.05
Date 30th

### WIND

Average hourly velocity 5.5 mph.
Prevailing direction NW
Maximum for five minutes 25
mph. from the NW on the 30th

### SUNSHINE

Average number hours per day 4.0
Percentage of possible 32

### NUMBER OF DAYS

Clear 0
Partly Cloudy 5
Cloudy 26
.01 inch of rain or more 17
Thunderstorms 20
Light fog 0
Dense fog 0

Number of hours with rain 35

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** September 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 82 | 95 | 62 | 83 | 0 |
| 2 | 86 | 74 | 80 | 95 | 66 | 91 | .20 |
| 3 | 82 | 72 | 77 | 96 | 72 | 91 | T |
| 4 | 85 | 73 | 79 | 95 | 68 | 88 | .06 |
| 5 | 82 | 73 | 78 | 95 | 77 | 89 | 0 |
| 6 | 86 | 72 | 79 | 95 | 64 | 84 | 0 |
| 7 | 89 | 74 | 82 | 95 | 62 | 83 | 0 |
| 8 | 86 | 73 | 80 | 94 | 66 | 86 | .02 |
| 9 | 88 | 73 | 80 | 95 | 62 | 87 | T |
| 10 | 84 | 74 | 79 | 94 | 63 | 84 | T |
| 11 | 88 | 73 | 80 | 95 | 68 | 86 | .05 |
| 12 | 88 | 75 | 82 | 95 | 66 | 89 | 1.01 |
| 13 | 87 | 76 | 82 | 95 | 70 | 90 | .76 |
| 14 | 82 | 74 | 78 | 95 | 70 | 90 | .01 |
| 15 | 86 | 72 | 79 | 94 | 68 | 86 | 0 |
| 16 | 90 | 74 | 82 | 94 | 63 | 85 | .14 |
| 17 | 89 | 75 | 82 | 95 | 66 | 88 | 1.81 |
| 18 | 82 | 73 | 78 | 94 | 78 | 91 | .09 |
| 19 | 88 | 74 | 81 | 93 | 62 | 84 | 0 |
| 20 | 88 | 75 | 82 | 94 | 66 | 86 | 1.10 |
| 21 | 88 | 73 | 80 | 94 | 66 | 86 | .10 |
| 22 | 84 | 74 | 79 | 96 | 74 | 90 | 1.37 |
| 23 | 87 | 74 | 80 | 94 | 65 | 85 | 0 |
| 24 | 87 | 76 | 82 | 93 | 68 | 82 | .01 |
| 25 | 84 | 76 | 80 | 95 | 78 | 87 | .20 |
| 26 | 81 | 74 | 78 | 95 | 80 | 90 | 1.91 |
| 27 | 86 | 74 | 80 | 94 | 72 | 87 | T |
| 28 | 86 | 74 | 80 | 95 | 70 | 85 | .10 |
| 29 | 84 | 75 | 80 | 96 | 74 | 85 | .16 |
| 30 | 85 | 73 | 79 | 96 | 65 | 84 | 0 |
| 31 | --- | --- | --- | --- | --- | --- | --- |
| Sum | 2578 | 2216 | | 2841 | 2051 | | 9.10 |
| Mean | 85.9 | 73.9 | 79.9 | 94.7 | 68.4 | 86.7 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1956 | 5.00 | 1961 | 7.19 |
| 1957 | 5.66 | 1962 | 5.39 |
| 1958 | 13.74 | 1963 | 5.17 |
| 1959 | 5.79 | 1964 | 6.91 |
| 1960 | 6.03 | 1965 | 9.10 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.824
Departure from normal - .001
Highest 29.95 Date 26
Lowest 29.72 Date 11

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.9
Departure from normal + 0.1
Highest 90 Date 1
Lowest 72 Date 3

**RAINFALL**
**(Inches)**

Total 9.10
Departure from normal +1.32
Greatest in 24 hours 1.91
Date 26

**WIND**

Average hourly velocity 5.3 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the N on the 9

**SUNSHINE**

Average number hours per day 3.1
Percentage of possible 26

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 7
Cloudy 23
.01 inch of rain or more 18
Thunderstorms 12
Light fog 0
Dense fog 0

Number of hours with rain 52

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, C. Z. Month: OCTOBER 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 72 | 80 | 95 | 60 | 84 | 0 |
| 2 | 84 | 74 | 79 | 95 | 72 | 90 | .01 |
| 3 | 85 | 74 | 80 | 95 | 70 | 87 | .09 |
| 4 | 89 | 74 | 82 | 94 | 68 | 84 | 0 |
| 5 | 88 | 75 | 82 | 96 | 64 | 85 | 0 |
| 6 | 88 | 74 | 81 | 95 | 68 | 92 | .73 |
| 7 | 92 | 75 | 84 | 95 | 59 | 87 | 1.33 |
| 8 | 82 | 72 | 77 | 98 | 85 | 94 | 1.19 |
| 9 | 78 | 74 | 76 | 96 | 85 | 93 | .86 |
| 10 | 84 | 72 | 78 | 96 | 72 | 91 | .32 |
| 11 | 90 | 72 | 81 | 95 | 62 | 86 | T |
| 12 | 82 | 74 | 78 | 98 | 80 | 91 | .06 |
| 13 | 84 | 74 | 79 | 98 | 77 | 90 | .50 |
| 14 | 87 | 74 | 80 | 96 | 67 | 87 | 0 |
| 15 | 86 | 74 | 80 | 95 | 72 | 89 | 0 |
| 16 | 82 | 75 | 78 | 96 | 78 | 91 | .03 |
| 17 | 84 | 74 | 79 | 95 | 70 | 90 | .04 |
| 18 | 81 | 73 | 77 | 95 | 80 | 90 | .10 |
| 19 | 82 | 76 | 79 | 94 | 79 | 87 | .14 |
| 20 | 85 | 74 | 80 | 95 | 73 | 90 | .09 |
| 21 | 85 | 72 | 78 | 95 | 70 | 86 | 0 |
| 22 | 85 | 74 | 80 | 97 | 76 | 92 | 1.84 |
| 23 | 85 | 73 | 79 | 99 | 77 | 92 | .79 |
| 24 | 84 | 73 | 78 | 97 | 74 | 92 | .22 |
| 25 | 85 | 73 | 79 | 94 | 66 | 87 | .01 |
| 26 | 86 | 72 | 79 | 93 | 64 | 81 | T |
| 27 | 86 | 71 | 78 | 94 | 58 | 83 | 1.40 |
| 28 | 85 | 72 | 78 | 99 | 66 | 94 | 2.32 |
| 29 | 84 | 71 | 78 | 99 | 73 | 98 | .02 |
| 30 | 87 | 70 | 78 | 96 | 66 | 86 | 0 |
| 31 | 87 | 73 | 80 | 95 | 67 | 86 | 0 |
| Sum | 2640 | 2270 | | 2970 | 2198 | | 12.09 |
| Mean | 85.2 | 73.2 | 79.2 | 95.8 | 70.9 | 88.6 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1956 | 13.44 | 1961 | 10.58 |
| 1957 | 9.70 | 1962 | 13.45 |
| 1958 | 9.96 | 1963 | 7.65 |
| 1959 | 12.50 | 1964 | 10.55 |
| 1960 | 5.74 | 1965 | 12.09 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.836
Departure from normal + 0.009
Highest 29.96 Date 26
Lowest 29.68 Date 7

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.2
Departure from normal 0.0
Highest 92 Date 7
Lowest 70 Date 30

### RAINFALL
(Inches)

Total 12.09
Departure from normal + 1.44
Greatest in 24 hours 3.37
Date 27 - 28

### WIND

Average hourly velocity 4.9 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the NW on the 7

### SUNSHINE

Average number hours per day 3.3
Percentage of possible 27

### NUMBER OF DAYS

Clear 1
Partly Cloudy 8
Cloudy 22
.01 inch of rain or more 21
Thunderstorms 14
Light fog 0
Dense fog 0

Number of hours with rain 83

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** NOVEMBER 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 75 | 82 | 98 | 66 | 87 | .01 |
| 2 | 87 | 73 | 80 | 97 | 66 | 90 | .11 |
| 3 | 82 | 74 | 78 | 98 | 76 | 92 | T |
| 4 | 83 | 73 | 78 | 98 | 74 | 90 | 0 |
| 5 | 86 | 74 | 80 | 94 | 69 | 91 | .59 |
| 6 | 85 | 73 | 79 | 98 | 68 | 90 | T |
| 7 | 87 | 73 | 80 | 100 | 67 | 93 | .24 |
| 8 | 87 | 72 | 80 | 100 | 69 | 94 | 1.77 |
| 9 | 84 | 72 | 78 | 100 | 72 | 96 | .53 |
| 10 | 85 | 72 | 78 | 100 | 70 | 91 | 0 |
| 11 | 88 | 73 | 80 | 100 | 60 | 88 | .03 |
| 12 | 88 | 73 | 80 | 96 | 66 | 89 | .32 |
| 13 | 89 | 74 | 82 | 98 | 66 | 87 | T |
| 14 | 90 | 74 | 82 | 97 | 63 | 87 | .05 |
| 15 | 87 | 74 | 80 | 96 | 66 | 87 | 0 |
| 16 | 84 | 74 | 79 | 98 | 73 | 92 | .03 |
| 17 | 87 | 72 | 80 | 99 | 68 | 89 | .20 |
| 18 | 88 | 72 | 80 | 98 | 62 | 86 | T |
| 19 | 84 | 73 | 78 | 99 | 70 | 92 | .11 |
| 20 | 82 | 72 | 77 | 100 | 74 | 90 | .02 |
| 21 | 82 | 71 | 76 | 100 | 76 | 94 | .77 |
| 22 | 82 | 72 | 77 | 100 | 74 | 96 | 1.61 |
| 23 | 88 | 70 | 79 | 98 | 60 | 85 | .09 |
| 24 | 78 | 72 | 75 | 96 | 90 | 95 | 1.90 |
| 25 | 80 | 70 | 75 | 98 | 82 | 92 | .23 |
| 26 | 83 | 71 | 77 | 98 | 70 | 93 | 3.64 |
| 27 | 77 | 71 | 74 | 98 | 88 | 96 | 4.08 |
| 28 | 84 | 72 | 78 | 100 | 74 | 96 | .79 |
| 29 | 87 | 72 | 80 | 99 | 65 | 90 | 0 |
| 30 | 90 | 72 | 81 | 99 | 58 | 87 | .04 |
| 31 | --- | --- | --- | --- | --- | --- | ---- |
| Sum | 2558 | 2175 | | 2950 | 2102 | | 17.16 |
| Mean | 85.1 | 72.5 | 78.8 | 98.3 | 70.1 | 90.9 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1956 | 10.17 | 1961 | 8.49 |
| 1957 | 8.08 | 1962 | 13.39 |
| 1958 | 18.65 | 1963 | 10.49 |
| 1959 | 8.00 | 1964 | 12.01 |
| 1960 | 11.14 | 1965 | 17.16 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.827
Departure from normal: +0.007
Highest: 29.94 Date: 23
Lowest: 29.70 Date: 5

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 78.8
Departure from normal: - 0.4
Highest: 90 Date: 14
Lowest: 70 Date: 23 +

### RAINFALL
(Inches)

Total: 17.16
Departure from normal: + 6.78
Greatest in 24 hours: 4.33
Date: 26 & 27

### WIND

Average hourly velocity: 5.0 mph.
Prevailing direction: NW
Maximum for five minutes: 20
mph. from the S on the 26

### SUNSHINE

Average number hours per day: 2.5
Percentage of possible: 21

### NUMBER OF DAYS

Clear: 1
Partly Cloudy: 3
Cloudy: 26
.01 inch of rain or more: 22
Thunderstorms: 13
Light fog: 0
Dense fog: 0

Number of hours with rain: 118

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** DECEMBER 1965

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 72 | 78 | 98 | 72 | 94 | .14 |
| 2 | 88 | 73 | 80 | 99 | 70 | 92 | .05 |
| 3 | 88 | 73 | 80 | 98 | 68 | 90 | T |
| 4 | 88 | 72 | 80 | 99 | 66 | 92 | .56 |
| 5 | 86 | 72 | 79 | 99 | 69 | 92 | .05 |
| 6 | 87 | 72 | 80 | 97 | 66 | 85 | 0 |
| 7 | 86 | 73 | 80 | 98 | 66 | 91 | .48 |
| 8 | 87 | 73 | 80 | 97 | 65 | 85 | .70 |
| 9 | 88 | 72 | 80 | 98 | 62 | 87 | 0 |
| 10 | 86 | 73 | 80 | 97 | 68 | 88 | T |
| 11 | 86 | 72 | 79 | 96 | 67 | 88 | 0 |
| 12 | 87 | 72 | 80 | 98 | 62 | 90 | .85 |
| 13 | 89 | 72 | 80 | 98 | 63 | 88 | .03 |
| 14 | 89 | 71 | 80 | 95 | 60 | 87 | .09 |
| 15 | 90 | 72 | 81 | 98 | 60 | 85 | T |
| 16 | 89 | 73 | 81 | 98 | 60 | 87 | T |
| 17 | 90 | 73 | 82 | 98 | 60 | 84 | T |
| 18 | 89 | 73 | 81 | 98 | 66 | 88 | .28 |
| 19 | 88 | 74 | 81 | 97 | 66 | 88 | .03 |
| 20 | 86 | 73 | 80 | 95 | 66 | 88 | .51 |
| 21 | 88 | 72 | 80 | 96 | 59 | 81 | .22 |
| 22 | 90 | 71 | 80 | 96 | 57 | 82 | 0 |
| 23 | 90 | 73 | 82 | 98 | 59 | 83 | 0 |
| 24 | 90 | 73 | 82 | 98 | 54 | 80 | 0 |
| 25 | 90 | 70 | 80 | 98 | 48 | 77 | 0 |
| 26 | 89 | 70 | 80 | 97 | 52 | 77 | 0 |
| 27 | 89 | 71 | 80 | 96 | 51 | 74 | T |
| 28 | 90 | 70 | 80 | 96 | 50 | 75 | 0 |
| 29 | 90 | 70 | 80 | 94 | 56 | 79 | 0 |
| 30 | 91 | 71 | 81 | 98 | 56 | 81 | 0 |
| 31 | 88 | 72 | 80 | 99 | 62 | 86 | .08 |
| Sum | 2737 | 2233 | | 3017 | 1901 | | 4.07 |
| Mean | 88.3 | 72.0 | 80.2 | 97.3 | 61.3 | 85.4 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1956 | 2.42 | 1961 | 4.74 |
| 1957 | .61 | 1962 | 8.21 |
| 1958 | 2.75 | 1963 | .80 |
| 1959 | 8.44 | 1964 | 3.12 |
| 1960 | 2.46 | 1965 | 4.07 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.805
Departure from normal -0.017
Highest 29.92 Date 22
Lowest 29.69 Date 19

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.2
Departure from normal +0.3
Highest 91 Date 30
Lowest 70 Date 29

### RAINFALL
(Inches)

Total 4.07
Departure from normal -.89
Greatest in 24 hours .85
Date 12

### WIND

Average hourly velocity 5.3 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the NW on the 6

### SUNSHINE

Average number hours per day 4.3
Percentage of possible 37

### NUMBER OF DAYS

Clear 2
Partly Cloudy 13
Cloudy 16
.01 inch of rain or more 14
Thunderstorms 4
Light fog 0
Dense fog 0

Number of hours with rain 37

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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APR 25 1966
WEATHER BUREAU

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JANUARY 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 72 | 80 | 100 | 62 | 90 | .94 |
| 2 | 86 | 73 | 80 | 100 | 70 | 94 | .29 |
| 3 | 87 | 72 | 80 | 100 | 72 | 96 | .29 |
| 4 | 90 | 72 | 81 | 100 | 64 | 90 | .41 |
| 5 | 89 | 73 | 81 | 100 | 64 | 90 | .10 |
| 6 | 89 | 73 | 81 | 100 | 65 | 88 | T |
| 7 | 90 | 73 | 82 | 99 | 59 | 85 | 0 |
| 8 | 89 | 73 | 81 | 98 | 64 | 89 | .01 |
| 9 | 89 | 73 | 81 | 98 | 60 | 88 | .15 |
| 10 | 90 | 72 | 81 | 98 | 62 | 88 | T |
| 11 | 90 | 73 | 82 | 98 | 64 | 87 | T |
| 12 | 89 | 73 | 81 | 98 | 62 | 84 | 0 |
| 13 | 90 | 73 | 82 | 98 | 56 | 82 | 0 |
| 14 | 90 | 71 | 80 | 98 | 58 | 81 | 0 |
| 15 | 91 | 71 | 81 | 98 | 58 | 81 | 0 |
| 16 | 89 | 72 | 80 | 98 | 56 | 81 | 0 |
| 17 | 86 | 73 | 80 | 99 | 66 | 87 | .05 |
| 18 | 89 | 72 | 80 | 100 | 60 | 83 | .16 |
| 19 | 89 | 71 | 80 | 99 | 60 | 84 | 0 |
| 20 | 89 | 73 | 81 | 96 | 60 | 82 | 0 |
| 21 | 92 | 73 | 82 | 96 | 55 | 78 | 0 |
| 22 | 91 | 73 | 82 | 98 | 56 | 83 | 0 |
| 23 | 90 | 74 | 82 | 95 | 60 | 81 | 0 |
| 24 | 90 | 74 | 82 | 95 | 58 | 78 | 0 |
| 25 | 91 | 74 | 82 | 94 | 60 | 79 | 0 |
| 26 | 92 | 73 | 82 | 98 | 55 | 81 | 0 |
| 27 | 88 | 74 | 81 | 92 | 57 | 74 | T |
| 28 | 91 | 74 | 82 | 93 | 54 | 74 | 0 |
| 29 | 94 | 72 | 83 | 97 | 50 | 80 | 0 |
| 30 | 90 | 75 | 82 | 96 | 55 | 81 | .02 |
| 31 | 92 | 73 | 82 | 96 | 56 | 77 | 0 |
| Sum | 2780 | 2257 | | 3025 | 1858 | | 2.42 |
| Mean | 89.7 | 72.8 | 81.2 | 97.6 | 60.0 | 83.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1957 | .44 | 1962 | .60 |
| 1958 | .79 | 1963 | 1.94 |
| 1959 | 1.05 | 1964 | T |
| 1960 | 4.37 | 1965 | 1.35 |
| 1961 | .66 | 1966 | 2.42 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.790
Departure from normal -0.053
Highest 29.95 Date 27 +
Lowest 29.67 Date 22 +

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.2
Departure from normal + 1.2
Highest 94 Date 29
Lowest 71 Date 14

### RAINFALL
(Inches)

Total 2.42
Departure from normal + 1.27
Greatest in 24 hours .94
Date 1

### WIND

Average hourly velocity 7.5 mph.
Prevailing direction NW
Maximum for five minutes 25
mph. from the N on the 27

### SUNSHINE

Average number hours per day 6.1
Percentage of possible 52

### NUMBER OF DAYS

Clear 5
Partly Cloudy 19
Cloudy 7
.01 inch of rain or more 10
Thunderstorms 3
Light fog 0
Dense fog 0

Number of hours with rain 14

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** FEBRUARY 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 72 | 82 | 97 | 52 | 78 | 0 |
| 2 | 92 | 72 | 82 | 97 | 46 | 74 | 0 |
| 3 | 90 | 71 | 80 | 96 | 54 | 77 | T |
| 4 | 91 | 72 | 82 | 94 | 48 | 74 | 0 |
| 5 | 91 | 70 | 80 | 93 | 44 | 72 | 0 |
| 6 | 90 | 70 | 80 | 96 | 51 | 76 | T |
| 7 | 92 | 70 | 81 | 95 | 51 | 76 | 0 |
| 8 | 92 | 72 | 82 | 97 | 52 | 75 | 0 |
| 9 | 90 | 71 | 80 | 95 | 54 | 75 | 0 |
| 10 | 93 | 71 | 82 | 95 | 50 | 76 | 0 |
| 11 | 92 | 71 | 82 | 94 | 50 | 74 | 0 |
| 12 | 89 | 71 | 80 | 94 | 57 | 76 | 0 |
| 13 | 91 | 70 | 80 | 94 | 47 | 72 | 0 |
| 14 | 92 | 70 | 81 | 91 | 47 | 69 | 0 |
| 15 | 92 | 72 | 82 | 93 | 48 | 73 | 0 |
| 16 | 94 | 74 | 84 | 90 | 52 | 75 | 0 |
| 17 | 91 | 72 | 82 | 93 | 53 | 74 | 0 |
| 18 | 91 | 72 | 82 | 94 | 55 | 76 | 0 |
| 19 | 93 | 71 | 82 | 94 | 49 | 74 | 0 |
| 20 | 92 | 74 | 83 | 89 | 50 | 72 | 0 |
| 21 | 93 | 74 | 84 | 93 | 47 | 73 | 0 |
| 22 | 94 | 74 | 84 | 91 | 54 | 74 | 0 |
| 23 | 92 | 74 | 83 | 92 | 55 | 75 | 0 |
| 24 | 94 | 74 | 84 | 93 | 52 | 76 | 0 |
| 25 | 92 | 76 | 84 | 88 | 55 | 75 | 0 |
| 26 | 93 | 74 | 84 | 93 | 49 | 74 | 0 |
| 27 | 92 | 73 | 82 | 93 | 51 | 75 | 0 |
| 28 | 92 | 75 | 84 | 90 | 53 | 74 | 0 |
| 29 | --- | --- | --- | --- | --- | --- | --- |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Sum | 2573 | 2022 | | 2614 | 1426 | | T |
| Mean | 91.9 | 72.2 | 82.0 | 93.4 | 50.9 | 74.5 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1957 | T | 1962 | .05 |
| 1958 | .14 | 1963 | 3.82 |
| 1959 | 0 | 1964 | .46 |
| 1960 | .88 | 1965 | .08 |
| 1961 | .75 | 1966 | T |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.820
Departure from normal - 0.034
Highest 29.98 Date 5
Lowest 29.68 Date 18

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.0
Departure from normal + 1.5
Highest 94 Date 16
Lowest 70 Date 6

### RAINFALL
(Inches)

Total T
Departure from normal - .65
Greatest in 24 hours T
Date 3 & 6

### WIND

Average hourly velocity 8.5 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the N on the 27

### SUNSHINE

Average number hours per day 6.8
Percentage of possible 57

### NUMBER OF DAYS

Clear 11
Partly Cloudy 16
Cloudy 1
.01 inch of rain or more 0
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 0

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** MARCH 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 93 | 74 | 84 | 96 | 50 | 76 | 0 |
| 2 | 88 | 73 | 80 | 95 | 63 | 80 | .03 |
| 3 | 93 | 72 | 82 | 95 | 48 | 72 | 0 |
| 4 | 94 | 70 | 82 | 94 | 48 | 72 | 0 |
| 5 | 92 | 70 | 81 | 95 | 46 | 72 | 0 |
| 6 | 87 | 72 | 80 | 95 | 53 | 80 | .04 |
| 7 | 92 | 70 | 81 | 97 | 42 | 74 | 0 |
| 8 | 92 | 70 | 81 | 97 | 43 | 71 | 0 |
| 9 | 92 | 70 | 81 | 96 | 40 | 69 | 0 |
| 10 | 93 | 69 | 81 | 96 | 39 | 68 | T |
| 11 | 90 | 70 | 80 | 94 | 51 | 72 | 0 |
| 12 | 93 | 71 | 82 | 95 | 42 | 71 | 0 |
| 13 | 90 | 70 | 80 | 96 | 53 | 75 | 0 |
| 14 | 92 | 71 | 82 | 97 | 52 | 75 | 0 |
| 15 | 91 | 73 | 82 | 95 | 55 | 75 | 0 |
| 16 | 92 | 74 | 83 | 89 | 50 | 72 | 0 |
| 17 | 89 | 74 | 82 | 91 | 56 | 75 | 0 |
| 18 | 91 | 75 | 83 | 86 | 52 | 72 | T |
| 19 | 93 | 74 | 84 | 91 | 44 | 69 | 0 |
| 20 | 92 | 72 | 82 | 95 | 48 | 72 | 0 |
| 21 | 94 | 70 | 82 | 96 | 44 | 70 | 0 |
| 22 | 90 | 70 | 80 | 96 | 50 | 72 | 0 |
| 23 | 92 | 73 | 82 | 90 | 51 | 73 | 0 |
| 24 | 91 | 75 | 83 | 84 | 53 | 70 | 0 |
| 25 | 93 | 75 | 84 | 84 | 50 | 69 | 0 |
| 26 | 92 | 74 | 83 | 86 | 53 | 71 | 0 |
| 27 | 90 | 73 | 82 | 93 | 57 | 76 | 0 |
| 28 | 94 | 74 | 84 | 92 | 52 | 72 | 0 |
| 29 | 94 | 78 | 85 | 88 | 53 | 74 | 0 |
| 30 | 92 | 75 | 83 | 92 | 59 | 78 | 0 |
| 31 | 82 | 75 | 78 | 96 | 72 | 86 | .03 |
| Sum | 2833 | 2246 | | 2882 | 1569 | | .10 |
| Mean | 91.4 | 72.5 | 82.0 | 93.0 | 50.6 | 73.4 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1957 | T | 1962 | .17 |
| 1958 | T | 1963 | .12 |
| 1959 | T | 1964 | T |
| 1960 | .56 | 1965 | 0 |
| 1961 | .20 | 1966 | .10 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.838
Departure from normal - .005
Highest 29.96 Date 7
Lowest 29.68 Date 23

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 82.0
Departure from normal + 0.4
Highest 94 Date 21
Lowest 69 Date 10

**RAINFALL**
**(Inches)**

Total .10
Departure from normal - 0.50
Greatest in 24 hours .04
Date 6

**WIND**

Average hourly velocity 9.2 mph.
Prevailing direction NW
Maximum for five minutes 27
mph. from the N on the 24

**SUNSHINE**

Average number hours per day 6.9
Percentage of possible 57

**NUMBER OF DAYS**

Clear 8
Partly Cloudy 13
Cloudy 10
.01 inch of rain or more 3
Thunderstorms 0
Light fog 1
Dense fog 1

Number of hours with rain 4

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** APRIL 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 72 | 80 | 92 | 58 | 84 | 0 |
| 2 | 91 | 72 | 82 | 94 | 56 | 78 | 0 |
| 3 | 90 | 74 | 82 | 90 | 50 | 71 | 0 |
| 4 | 94 | 73 | 84 | 88 | 48 | 70 | 0 |
| 5 | 92 | 72 | 82 | 91 | 50 | 77 | 0 |
| 6 | 93 | 72 | 82 | 92 | 46 | 71 | 0 |
| 7 | 91 | 72 | 82 | 90 | 48 | 74 | T |
| 8 | 92 | 71 | 82 | 90 | 46 | 69 | 0 |
| 9 | 90 | 71 | 80 | 90 | 46 | 71 | 0 |
| 10 | 93 | 71 | 82 | 90 | 44 | 69 | 0 |
| 11 | 94 | 71 | 82 | 88 | 40 | 69 | 0 |
| 12 | 91 | 73 | 82 | 88 | 45 | 71 | 0 |
| 13 | 95 | 73 | 84 | 89 | 40 | 65 | 0 |
| 14 | 95 | 73 | 84 | 86 | 40 | 66 | 0 |
| 15 | 88 | 75 | 82 | 92 | 53 | 81 | .25 |
| 16 | 90 | 74 | 82 | 91 | 52 | 81 | .54 |
| 17 | 93 | 74 | 84 | 91 | 46 | 72 | 0 |
| 18 | 88 | 75 | 82 | 90 | 60 | 81 | 0 |
| 19 | 90 | 75 | 82 | 91 | 59 | 82 | .30 |
| 20 | 93 | 76 | 84 | 92 | 53 | 75 | T |
| 21 | 92 | 77 | 84 | 90 | 54 | 75 | 0 |
| 22 | 91 | 77 | 84 | 94 | 52 | 76 | .01 |
| 23 | 80 | 76 | 78 | 95 | 82 | 89 | .93 |
| 24 | 86 | 74 | 80 | 93 | 66 | 89 | .16 |
| 25 | 90 | 73 | 82 | 91 | 57 | 78 | .01 |
| 26 | 90 | 74 | 82 | 96 | 62 | 82 | 0 |
| 27 | 93 | 74 | 84 | 96 | 56 | 80 | .07 |
| 28 | 95 | 75 | 85 | 96 | 54 | 79 | .01 |
| 29 | 93 | 77 | 85 | 96 | 55 | 79 | 0 |
| 30 | 89 | 74 | 82 | 99 | 62 | 89 | .91 |
| 31 | -- | -- | -- | -- | -- | -- | ---- |
| Sum | 2729 | 2210 | | 2751 | 1580 | | 3.19 |
| Mean | 91.0 | 73.7 | 82.4 | 91.7 | 52.7 | 76.4 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1957 | 1.85 | 1962 | .43 |
| 1958 | 3.01 | 1963 | 6.04 |
| 1959 | 1.46 | 1964 | 6.54 |
| 1960 | 6.83 | 1965 | .26 |
| 1961 | 2.09 | 1966 | 3.19 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.832
Departure from normal + 0.002
Highest 29.95 Date 7
Lowest 29.73 Date 30

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 82.4
Departure from normal + 0.2
Highest 95 Date 13
Lowest 71 Date 10

**RAINFALL**
**(Inches)**

Total 3.19
Departure from normal + 0.48
Greatest in 24 hours .93
Date 23

**WIND**

Average hourly velocity 6.2 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the NW on the 7

**SUNSHINE**

Average number hours per day 7.8
Percentage of possible 63

**NUMBER OF DAYS**

Clear 6
Partly Cloudy 10
Cloudy 14
.01 inch of rain or more 10
Thunderstorms 4
Light fog 1
Dense fog 1

Number of hours with rain 31

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

LIBRARY JUN 21 1966 WEATHER BUREAU

**Station:** Balboa Heights, C. Z. **Month:** May, 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 74 | 81 | 97 | 67 | 90 | .01 |
| 2 | 89 | 75 | 82 | 96 | 61 | 82 | .04 |
| 3 | 89 | 75 | 82 | 96 | 62 | 87 | .34 |
| 4 | 90 | 75 | 82 | 96 | 59 | 84 | .02 |
| 5 | 91 | 74 | 82 | 96 | 59 | 88 | .49 |
| 6 | 88 | 76 | 82 | 96 | 64 | 91 | .52 |
| 7 | 83 | 75 | 79 | 96 | 75 | 92 | .01 |
| 8 | 90 | 75 | 82 | 96 | 61 | 86 | .24 |
| 9 | 89 | 76 | 82 | 98 | 63 | 87 | .04 |
| 10 | 86 | 77 | 82 | 99 | 74 | 94 | 1.69 |
| 11 | 85 | 75 | 80 | 98 | 70 | 88 | .03 |
| 12 | 87 | 75 | 81 | 96 | 65 | 89 | .39 |
| 13 | 83 | 74 | 78 | 96 | 70 | 87 | 0 |
| 14 | 89 | 74 | 82 | 96 | 63 | 85 | 0 |
| 15 | 87 | 75 | 81 | 97 | 70 | 87 | 0 |
| 16 | 85 | 76 | 80 | 98 | 70 | 92 | .61 |
| 17 | 82 | 74 | 78 | 99 | 78 | 94 | .07 |
| 18 | 84 | 72 | 78 | 98 | 67 | 90 | 2.48 |
| 19 | 85 | 73 | 79 | 96 | 72 | 90 | .13 |
| 20 | 90 | 75 | 82 | 98 | 68 | 88 | 1.11 |
| 21 | 91 | 74 | 82 | 98 | 64 | 88 | .60 |
| 22 | 84 | 74 | 79 | 99 | 76 | 94 | 1.45 |
| 23 | 87 | 72 | 80 | 98 | 64 | 88 | .42 |
| 24 | 83 | 74 | 78 | 98 | 66 | 91 | 1.85 |
| 25 | 85 | 73 | 79 | 96 | 67 | 84 | .09 |
| 26 | 86 | 78 | 82 | 98 | 70 | 84 | T |
| 27 | 84 | 74 | 79 | 96 | 76 | 91 | .24 |
| 28 | 86 | 74 | 80 | 96 | 72 | 90 | .17 |
| 29 | 85 | 74 | 80 | 96 | 67 | 90 | T |
| 30 | 81 | 74 | 78 | 98 | 85 | 96 | .34 |
| 31 | 86 | 74 | 80 | 98 | 70 | 83 | .02 |
| Sum | 2678 | 2310 | | 3009 | 2115 | | |
| Mean | 86.4 | 74.5 | 80.4 | 97.1 | 68.2 | 88.8 | 13.40 |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1957 | 9.18 | 1962 | 5.54 |
| 1958 | 10.47 | 1963 | 5.00 |
| 1959 | 9.23 | 1964 | 6.72 |
| 1960 | 7.28 | 1965 | 13.14 |
| 1961 | 5.02 | 1966 | 13.40 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.841
Departure from normal +0.016
Highest 29.94 Date 7
Lowest 29.75 Date 26

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.4
Departure from normal -0.5
Highest 91 Date 21
Lowest 72 Date 18+

### RAINFALL
(Inches)

Total 13.40
Departure from normal +5.35
Greatest in 24 hours 2.60
Date 21-22

### WIND

Average hourly velocity 4.1 mph.
Prevailing direction NW
Maximum for five minutes 17
mph. from the NW on the 2

### SUNSHINE

Average number hours per day 7.1
Percentage of possible 57

### NUMBER OF DAYS

Clear 0
Partly Cloudy 9
Cloudy 22
.01 inch of rain or more 26
Thunderstorms 14
Light fog 0
Dense fog 0

Number of hours with rain 90

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C.Z. **Month:** June - 1966

LIBRARY JUL 20 1966 WEATHER BUREAU

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 80 | 98 | 69 | 88 | .48 |
| 2 | 80 | 73 | 76 | 98 | 80 | 94 | .37 |
| 3 | 81 | 74 | 78 | 98 | 78 | 91 | .18 |
| 4 | 84 | 78 | 81 | 96 | 76 | 87 | 0 |
| 5 | 85 | 77 | 81 | 100 | 74 | 85 | .06 |
| 6 | 86 | 77 | 82 | 98 | 69 | 83 | 0 |
| 7 | 86 | 78 | 82 | 95 | 63 | 79 | 0 |
| 8 | 87 | 75 | 81 | 98 | 68 | 87 | 2.46 |
| 9 | 86 | 70 | 78 | 98 | 68 | 90 | 1.81 |
| 10 | 86 | 76 | 81 | 97 | 69 | 92 | T |
| 11 | 83 | 74 | 78 | 99 | 73 | 92 | .54 |
| 12 | 82 | 85 | 78 | 98 | 77 | 94 | .48 |
| 13 | 88 | 71 | 80 | 97 | 61 | 86 | 0 |
| 14 | 89 | 75 | 82 | 97 | 62 | 85 | 0 |
| 15 | 86 | 76 | 81 | 98 | 72 | 90 | .78 |
| 16 | 86 | 73 | 80 | 97 | 66 | 89 | .23 |
| 17 | 87 | 73 | 80 | 97 | 63 | 88 | .39 |
| 18 | 86 | 74 | 80 | 96 | 70 | 92 | .68 |
| 19 | 84 | 73 | 78 | 96 | 74 | 91 | .18 |
| 20 | 83 | 74 | 78 | 97 | 69 | 89 | .03 |
| 21 | 84 | 75 | 80 | 97 | 71 | 84 | .12 |
| 22 | 86 | 75 | 80 | 98 | 68 | 83 | .12 |
| 23 | 88 | 76 | 82 | 97 | 66 | 84 | .14 |
| 24 | 83 | 76 | 80 | 99 | 79 | 92 | .09 |
| 25 | 82 | 74 | 78 | 98 | 82 | 94 | 1.12 |
| 26 | 86 | 76 | 81 | 98 | 64 | 82 | T |
| 27 | 86 | 74 | 80 | 96 | 69 | 88 | 0 |
| 28 | 84 | 75 | 80 | 97 | 72 | 88 | 0 |
| 29 | 85 | 75 | 80 | 96 | 70 | 90 | 2.22 |
| 30 | 86 | 73 | 80 | 96 | 69 | 90 | 1.42 |
| 31 | | | | | | | |
| Sum | 2551 | 2240 | 2396 | 2920 | 2111 | 2647 | 13.90 |
| Mean | 85.0 | 74.7 | 79.8 | 97.3 | 70.4 | 88.2 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 19 57 | 5.71 | 19 62 | 10.20 |
| 19 58 | 3.50 | 19 63 | 7.35 |
| 19 59 | 4.57 | 19 64 | 6.07 |
| 19 60 | 5.36 | 19 65 | 4.91 |
| 19 61 | 10.72 | 19 66 | 13.90 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.846
Departure from normal +0.016
Highest 29.98 Date 9
Lowest 29.72 Date 15

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.8
Departure from normal -0.9
Highest 89 Date 14
Lowest 70 Date 9

### RAINFALL
(Inches)

Total 13.90
Departure from normal +5.80
Greatest in 24 hours 4.27
Date 8 & 9

### WIND

Average hourly velocity 5.4 mph.
Prevailing direction S
Maximum for five minutes 21
mph. from the S on the 25

### SUNSHINE

Average number hours per day 6.1
Percentage of possible 48

### NUMBER OF DAYS

Clear 1
Partly Cloudy 10
Cloudy 19
.01 inch of rain or more 21
Thunderstorms 11
Light fog 0
Dense fog 0

Number of hours with rain 86

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

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AUG 15 1966
WEATHER BUREAU

Station: Balboa Heights, C. Z. Month: July, 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 75 | 82 | 96 | 58 | 82 | 0 |
| 2 | 83 | 73 | 78 | 98 | 76 | 92 | .69 |
| 3 | 84 | 71 | 78 | 98 | 68 | 87 | 1.54 |
| 4 | 83 | 74 | 78 | 95 | 70 | 89 | 0 |
| 5 | 88 | 75 | 82 | 96 | 63 | 88 | .75 |
| 6 | 85 | 75 | 80 | 95 | 70 | 87 | T |
| 7 | 84 | 74 | 79 | 94 | 69 | 87 | T |
| 8 | 84 | 73 | 79 | 94 | 69 | 85 | 0 |
| 9 | 90 | 75 | 82 | 96 | 62 | 89 | .93 |
| 10 | 83 | 73 | 78 | 96 | 80 | 90 | 0 |
| 11 | 84 | 73 | 78 | 96 | 77 | 88 | .25 |
| 12 | 86 | 74 | 80 | 96 | 69 | 90 | .72 |
| 13 | 83 | 73 | 78 | 96 | 76 | 88 | 0 |
| 14 | 87 | 74 | 80 | 96 | 68 | 86 | .18 |
| 15 | 90 | 74 | 82 | 96 | 62 | 82 | 0 |
| 16 | 93 | 75 | 84 | 97 | 58 | 89 | .72 |
| 17 | 92 | 76 | 84 | 96 | 58 | 88 | .24 |
| 18 | 90 | 75 | 82 | 95 | 61 | 85 | .16 |
| 19 | 89 | 75 | 82 | 95 | 58 | 83 | .02 |
| 20 | 89 | 75 | 82 | 95 | 58 | 86 | 1.39 |
| 21 | 87 | 74 | 80 | 95 | 63 | 89 | .02 |
| 22 | 88 | 74 | 81 | 95 | 57 | 84 | 0 |
| 23 | 89 | 74 | 82 | 98 | 60 | 90 | 0 |
| 24 | 88 | 74 | 81 | 96 | 66 | 88 | 1.44 |
| 25 | 85 | 76 | 80 | 95 | 70 | 89 | .06 |
| 26 | 90 | 70 | 80 | 95 | 62 | 86 | 2.10 |
| 27 | 85 | 70 | 78 | 95 | 72 | 87 | .02 |
| 28 | 84 | 74 | 79 | 94 | 72 | 88 | .01 |
| 29 | 88 | 74 | 81 | 94 | 61 | 84 | .11 |
| 30 | 88 | 75 | 82 | 92 | 62 | 86 | .04 |
| 31 | 84 | 75 | 80 | 94 | 70 | 87 | T |
| Sum | 2693 | 2292 | | 2959 | 2045 | | 11.39 |
| Mean | 86.9 | 73.9 | 80.4 | 95.5 | 66.0 | 87.1 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1957 | 10.23 | 1962 | 5.69 |
| 1958 | 6.31 | 1963 | 8.38 |
| 1959 | 5.59 | 1964 | 5.38 |
| 1960 | 5.61 | 1965 | 3.64 |
| 1961 | 8.40 | 1966 | 11.39 |

### ATMOSPHERIC PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.827
Departure from normal - 0.003
Highest 29.93 Date 22
Lowest 29.71 Date 1

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.4
Departure from normal 0.0
Highest 93 Date 16
Lowest 70 Date 27

### RAINFALL
(Inches)

Total 11.39
Departure from normal +3.99
Greatest in 24 hours 2.10
Date 26

### WIND

Average hourly velocity 4.7 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the SE on the 26

### SUNSHINE

Average number hours per day 6.0
Percentage of possible 47

### NUMBER OF DAYS

Clear 0
Partly Cloudy 7
Cloudy 26
.01 inch of rain or more 20
Thunderstorms 21
Light fog 0
Dense fog 0

Number of hours with rain 65

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** AUGUST 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 73 | 81 | 95 | 71 | 83 | 0 |
| 2 | 89 | 75 | 82 | 96 | 64 | 87 | .05 |
| 3 | 86 | 76 | 81 | 97 | 65 | 88 | 0 |
| 4 | 91 | 75 | 83 | 96 | 60 | 86 | T |
| 5 | 86 | 74 | 80 | 96 | 70 | 90 | .09 |
| 6 | 84 | 74 | 79 | 97 | 68 | 88 | T |
| 7 | 86 | 74 | 80 | 96 | 70 | 87 | 0 |
| 8 | 85 | 74 | 80 | 96 | 70 | 88 | .91 |
| 9 | 86 | 71 | 78 | 97 | 64 | 86 | 0 |
| 10 | 84 | 73 | 78 | 96 | 72 | 88 | .01 |
| 11 | 90 | 74 | 82 | 97 | 67 | 84 | 0 |
| 12 | 85 | 75 | 80 | 97 | 63 | 85 | .02 |
| 13 | 87 | 73 | 80 | 96 | 68 | 89 | .98 |
| 14 | 81 | 72 | 76 | 98 | 77 | 92 | .15 |
| 15 | 84 | 72 | 78 | 97 | 65 | 88 | .12 |
| 16 | 86 | 73 | 80 | 96 | 65 | 87 | .07 |
| 17 | 90 | 72 | 81 | 97 | 58 | 86 | .22 |
| 18 | 91 | 73 | 82 | 97 | 60 | 84 | .10 |
| 19 | 86 | 73 | 80 | 96 | 64 | 84 | .32 |
| 20 | 89 | 72 | 80 | 96 | 60 | 82 | 0 |
| 21 | 89 | 74 | 82 | 96 | 66 | 87 | T |
| 22 | 91 | 73 | 82 | 97 | 60 | 90 | .07 |
| 23 | 84 | 73 | 78 | 96 | 74 | 93 | .29 |
| 24 | 88 | 73 | 80 | 96 | 61 | 84 | .01 |
| 25 | 88 | 72 | 80 | 96 | 61 | 84 | 0 |
| 26 | 83 | 73 | 78 | 95 | 74 | 90 | 0 |
| 27 | 86 | 72 | 79 | 96 | 66 | 88 | 0 |
| 28 | 86 | 72 | 79 | 96 | 66 | 84 | 0 |
| 29 | 89 | 74 | 82 | 95 | 67 | 83 | 0 |
| 30 | 89 | 72 | 80 | 97 | 57 | 84 | 0 |
| 31 | 85 | 74 | 80 | 96 | 62 | 87 | .13 |
| Sum | 2693 | 2270 | | 2985 | 2035 | | 3.54 |
| Mean | 86.9 | 73.2 | 80.0 | 96.3 | 65.6 | 86.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1957 | 10.06 | 1962 | 6.43 |
| 1958 | 9.65 | 1963 | 6.86 |
| 1959 | 7.62 | 1964 | 9.60 |
| 1960 | 11.74 | 1965 | 7.74 |
| 1961 | 5.92 | 1966 | 3.54 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.845
Departure from normal: +0.013
Highest: 29.95 Date: 26th
Lowest: 29.73 Date: 18th

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 80.0
Departure from normal: -0.2
Highest: 91 Date: 18th
Lowest: 71 Date: 9th

### RAINFALL
(Inches)

Total: 3.54
Departure from normal: -4.19
Greatest in 24 hours: 1.02
Date: 13 - 14th

### WIND

Average hourly velocity: 5.0 mph.
Prevailing direction: NW
Maximum for five minutes: 19
mph. from the: S on the: 12th

### SUNSHINE

Average number hours per day: 5.6
Percentage of possible: 45

### NUMBER OF DAYS

Clear: 2
Partly Cloudy: 6
Cloudy: 23
.01 inch of rain or more: 16
Thunderstorms: 12
Light fog: 1
Dense fog: 1

Number of hours with rain: 46

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** SEPTEMBER 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 72 | 78 | 97 | 70 | 88 | 0 |
| 2 | 88 | 70 | 79 | 97 | 55 | 81 | 0 |
| 3 | 87 | 73 | 80 | 96 | 62 | 84 | T |
| 4 | 86 | 72 | 79 | 97 | 62 | 87 | 1.04 |
| 5 | 86 | 72 | 79 | 98 | 66 | 86 | .06 |
| 6 | 91 | 72 | 82 | 97 | 57 | 89 | .70 |
| 7 | 83 | 73 | 78 | 97 | 66 | 88 | .01 |
| 8 | 88 | 72 | 80 | 97 | 61 | 88 | .13 |
| 9 | 81 | 74 | 78 | 96 | 84 | 94 | .94 |
| 10 | 87 | 71 | 79 | 97 | 65 | 84 | 0 |
| 11 | 86 | 72 | 79 | 97 | 68 | 92 | .29 |
| 12 | 91 | 73 | 82 | 97 | 58 | 89 | 1.21 |
| 13 | 89 | 74 | 82 | 96 | 63 | 90 | .54 |
| 14 | 85 | 70 | 78 | 97 | 70 | 89 | 0 |
| 15 | 85 | 72 | 78 | 98 | 72 | 90 | .03 |
| 16 | 88 | 73 | 80 | 97 | 64 | 84 | T |
| 17 | 89 | 74 | 82 | 97 | 64 | 89 | .07 |
| 18 | 90 | 74 | 82 | 97 | 64 | 92 | 2.26 |
| 19 | 85 | 74 | 79 | 97 | 68 | 89 | .03 |
| 20 | 87 | 74 | 80 | 96 | 66 | 84 | .18 |
| 21 | 89 | 74 | 82 | 97 | 66 | 85 | 0 |
| 22 | 89 | 75 | 82 | 97 | 62 | 91 | .21 |
| 23 | 86 | 75 | 80 | 96 | 69 | 89 | 0 |
| 24 | 86 | 74 | 80 | 96 | 68 | 88 | .19 |
| 25 | 87 | 75 | 81 | 96 | 64 | 87 | 0 |
| 26 | 86 | 74 | 80 | 96 | 72 | 92 | .93 |
| 27 | 86 | 74 | 80 | 95 | 68 | 88 | .39 |
| 28 | 83 | 74 | 78 | 96 | 70 | 91 | .02 |
| 29 | 86 | 74 | 80 | 96 | 68 | 87 | .03 |
| 30 | 87 | 74 | 80 | 96 | 67 | 86 | 1.71 |
| 31 | — | — | — | — | — | — | — |
| Sum | 2602 | 2194 | | 2899 | 1979 | | 10.97 |
| Mean | 86.7 | 73.1 | 79.9 | 96.6 | 66.0 | 88.0 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1957 | 5.66 | 1962 | 5.39 |
| 1958 | 13.74 | 1963 | 5.17 |
| 1959 | 5.79 | 1964 | 6.91 |
| 1960 | 6.03 | 1965 | 9.10 |
| 1961 | 7.19 | 1966 | 10.97 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean: 29.837
Departure from normal: + 0.011
Highest: 29.94 Date: 16
Lowest: 29.75 Date: 8

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean: 79.9
Departure from normal: + 0.1
Highest: 91 Date: 6
Lowest: 70 Date: 2

**RAINFALL**
(Inches)

Total: 10.97
Departure from normal: + 3.14
Greatest in 24 hours: 2.33
Date: 18

**WIND**

Average hourly velocity: 4.3 mph.
Prevailing direction: NW
Maximum for five minutes: 24
mph. from the NE on the 24

**SUNSHINE**

Average number hours per day: 6.6
Percentage of possible: 54

**NUMBER OF DAYS**

Clear: 1
Partly Cloudy: 8
Cloudy: 21
.01 inch of rain or more: 21
Thunderstorms: 16
Light fog: 0
Dense fog: 0

Number of hours with rain: 62

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, C. Z. Month: OCTOBER 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 82 | 74 | 78 | 97 | 79 | 91 | .55 |
| 2 | 81 | 73 | 77 | 97 | 78 | 95 | .75 |
| 3 | 81 | 72 | 76 | 99 | 78 | 94 | 4.92 |
| 4 | 84 | 74 | 79 | 97 | 71 | 88 | .02 |
| 5 | 83 | 74 | 78 | 97 | 71 | 87 | .10 |
| 6 | 79 | 74 | 76 | 98 | 77 | 90 | 2.89 |
| 7 | 84 | 75 | 80 | 98 | 70 | 88 | .06 |
| 8 | 89 | 74 | 82 | 99 | 62 | 83 | T |
| 9 | 88 | 74 | 81 | 96 | 66 | 84 | 0 |
| 10 | 86 | 73 | 80 | 96 | 62 | 86 | 1.41 |
| 11 | 83 | 74 | 78 | 96 | 72 | 85 | 0 |
| 12 | 84 | 74 | 79 | 97 | 70 | 88 | 2.90 |
| 13 | 85 | 73 | 79 | 97 | 71 | 88 | .39 |
| 14 | 86 | 74 | 80 | 96 | 68 | 86 | .46 |
| 15 | 83 | 74 | 78 | 96 | 71 | 86 | .04 |
| 16 | 85 | 73 | 79 | 96 | 67 | 90 | .16 |
| 17 | 80 | 72 | 76 | 96 | 78 | 94 | 1.55 |
| 18 | 84 | 71 | 78 | 96 | 74 | 93 | 3.10 |
| 19 | 84 | 72 | 78 | 96 | 70 | 90 | .39 |
| 20 | 86 | 73 | 80 | 96 | 65 | 88 | 1.88 |
| 21 | 86 | 72 | 79 | 96 | 66 | 87 | 0 |
| 22 | 84 | 73 | 78 | 96 | 70 | 89 | .03 |
| 23 | 86 | 73 | 80 | 96 | 68 | 90 | .20 |
| 24 | 90 | 74 | 82 | 96 | 60 | 84 | 0 |
| 25 | 89 | 74 | 82 | 94 | 60 | 90 | 1.31 |
| 26 | 83 | 73 | 78 | 96 | 71 | 88 | 0 |
| 27 | 84 | 72 | 78 | 94 | 66 | 84 | T |
| 28 | 87 | 74 | 80 | 95 | 65 | 83 | 0 |
| 29 | 90 | 74 | 82 | 96 | 60 | 82 | 0 |
| 30 | 85 | 75 | 80 | 95 | 70 | 86 | .01 |
| 31 | 89 | 74 | 82 | 96 | 58 | 84 | .09 |
| Sum | 2630 | 2275 | | 2986 | 2134 | | 23.21 |
| Mean | 84.8 | 73.4 | 79.1 | 96.3 | 68.8 | 87.8 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1957 | 9.70 | 1962 | 13.45 |
| 1958 | 9.96 | 1963 | 7.65 |
| 1959 | 18.50 | 1964 | 10.55 |
| 1960 | 5.74 | 1965 | 12.09 |
| 1961 | 10.58 | 1966 | 23.21 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.836
Departure from normal + 0.009
Highest 29.98 Date 20
Lowest 29.70 Date 31

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.1
Departure from normal - 0.1
Highest 90 Date 29
Lowest 71 Date 18

### RAINFALL
(Inches)

Total 23.21
Departure from normal + 12.39
Greatest in 24 hours 4.94
Date 3d - 4th

### WIND

Average hourly velocity 5.1 mph.
Prevailing direction S
Maximum for five minutes 20
mph. from the S on the 6th

### SUNSHINE

Average number hours per day 6.5
Percentage of possible 55

### NUMBER OF DAYS

Clear 0
Partly Cloudy 7
Cloudy 24
.01 inch of rain or more 22
Thunderstorms 12
Light fog 1
Dense fog 0

Number of hours with rain 138

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Pan Canal

# PANAMA CANAL COMPANY

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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** NOVEMBER 1966

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 72 | 79 | 98 | 60 | 86 | .16 |
| 2 | 85 | 72 | 78 | 96 | 62 | 92 | .74 |
| 3 | 82 | 72 | 77 | 96 | 65 | 90 | .03 |
| 4 | 87 | 72 | 80 | 96 | 63 | 88 | 1.49 |
| 5 | 88 | 73 | 80 | 96 | 62 | 90 | 2.26 |
| 6 | 82 | 73 | 78 | 96 | 77 | 90 | T |
| 7 | 86 | 73 | 80 | 96 | 60 | 88 | .89 |
| 8 | 83 | 72 | 78 | 95 | 72 | 88 | .01 |
| 9 | 89 | 72 | 80 | 96 | 61 | 90 | .36 |
| 10 | 86 | 73 | 80 | 96 | 62 | 87 | .06 |
| 11 | 88 | 73 | 80 | 95 | 59 | 83 | .06 |
| 12 | 87 | 72 | 80 | 95 | 60 | 86 | .64 |
| 13 | 85 | 72 | 78 | 93 | 58 | 86 | .31 |
| 14 | 90 | 71 | 80 | 94 | 46 | 77 | 0 |
| 15 | 87 | 71 | 79 | 95 | 53 | 88 | .32 |
| 16 | 87 | 71 | 79 | 95 | 52 | 82 | .01 |
| 17 | 88 | 70 | 79 | 94 | 54 | 82 | T |
| 18 | 89 | 70 | 80 | 92 | 52 | 79 | 0 |
| 19 | 90 | 74 | 82 | 92 | 53 | 77 | 0 |
| 20 | 89 | 72 | 80 | 92 | 46 | 75 | 0 |
| 21 | 86 | 73 | 80 | 93 | 61 | 81 | .02 |
| 22 | 85 | 72 | 78 | 96 | 68 | 87 | .34 |
| 23 | 85 | 73 | 79 | 95 | 68 | 86 | .03 |
| 24 | 78 | 73 | 76 | 97 | 90 | 95 | 1.31 |
| 25 | 83 | 71 | 77 | 96 | 69 | 88 | .11 |
| 26 | 89 | 71 | 80 | 95 | 51 | 81 | T |
| 27 | 87 | 71 | 79 | 93 | 60 | 83 | T |
| 28 | 88 | 73 | 80 | 94 | 58 | 80 | T |
| 29 | 80 | 72 | 78 | 94 | 74 | 89 | .01 |
| 30 | 82 | 71 | 76 | 97 | 63 | 83 | .02 |
| 31 | -- | -- | -- | -- | -- | -- | -- |
| Sum | 2577 | 2160 | | 2848 | 1839 | | 9.18 |
| Mean | 85.9 | 72.0 | 79.0 | 94.9 | 61.3 | 85.2 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1957 | 8.68 | 1962 | 13.39 |
| 1958 | 12.65 | 1963 | 10.49 |
| 1959 | 8.00 | 1964 | 12.01 |
| 1960 | 11.14 | 1965 | 17.16 |
| 1961 | 8.49 | 1966 | 9.18 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.840
Departure from normal: + .019
Highest: 29.96 Date: 2
Lowest: 29.74 Date: 26

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 79.0
Departure from normal: - 0.2
Highest: 90 Date: 14
Lowest: 70 Date: 17

### RAINFALL
(Inches)

Total: 9.18
Departure from normal: - 1.18
Greatest in 24 hours: 2.30
Date: 4 - 5

### WIND

Average hourly velocity: 6.0 mph.
Prevailing direction: NW
Maximum for five minutes: 22
mph. from the NW on the 21

### SUNSHINE

Average number hours per day: 5.0
Percentage of possible: 43

### NUMBER OF DAYS

Clear: 2
Partly Cloudy: 8
Cloudy: 20
.01 inch of rain or more: 21
Thunderstorms: 4
Light fog: 0
Dense fog: 0

Number of hours with rain: 75

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ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** DECEMBER 1958

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 79 | 71 | 75 | 96 | 80 | 93 | 1.67 |
| 2 | 86 | 71 | 78 | 95 | 63 | 85 | .12 |
| 3 | 88 | 72 | 80 | 94 | 61 | 86 | T |
| 4 | 87 | 74 | 80 | 94 | 63 | 90 | .19 |
| 5 | 82 | 73 | 78 | 94 | 62 | 87 | .10 |
| 6 | 85 | 71 | 78 | 94 | 65 | 90 | .56 |
| 7 | 86 | 72 | 78 | 95 | 62 | 88 | 0 |
| 8 | 79 | 72 | 76 | 96 | 78 | 92 | 1.27 |
| 9 | 84 | 71 | 76 | 97 | 68 | 87 | .23 |
| 10 | 83 | 72 | 78 | 95 | 72 | 90 | .46 |
| 11 | 82 | 71 | 76 | 95 | 67 | 87 | .11 |
| 12 | 85 | 70 | 78 | 92 | 60 | 86 | T |
| 13 | 91 | 71 | 81 | 94 | 41 | 75 | 0 |
| 14 | 87 | 72 | 80 | 96 | 52 | 82 | .03 |
| 15 | 88 | 68 | 78 | 98 | 49 | 75 | 0 |
| 16 | 89 | 71 | 80 | 98 | 44 | 77 | 0 |
| 17 | 88 | 72 | 80 | 98 | 52 | 82 | T |
| 18 | 84 | 73 | 78 | 98 | 61 | 88 | .01 |
| 19 | 84 | 73 | 78 | 98 | 59 | 84 | T |
| 20 | 85 | 72 | 78 | 99 | 55 | 86 | .17 |
| 21 | 84 | 72 | 78 | 96 | 64 | 83 | .03 |
| 22 | 90 | 72 | 81 | 96 | 59 | 84 | .03 |
| 23 | 89 | 74 | 82 | 96 | 49 | 79 | 0 |
| 24 | 85 | 73 | 79 | 96 | 60 | 83 | .01 |
| 25 | 89 | 73 | 81 | 96 | 56 | 82 | T |
| 26 | 87 | 73 | 80 | 94 | 58 | 85 | .01 |
| 27 | 89 | 72 | 80 | 94 | 47 | 78 | 0 |
| 28 | 89 | 72 | 80 | 94 | 42 | 74 | 0 |
| 29 | 90 | 72 | 81 | 94 | 50 | 80 | .07 |
| 30 | 90 | 74 | 82 | 94 | 50 | 76 | 0 |
| 31 | 89 | 73 | 81 | 93 | 52 | 76 | 0 |
| Sum | 2673 | 2232 | | 2959 | 1801 | | 5.07 |
| Mean | 86.2 | 72.0 | 79.1 | 95.5 | [illegible] | 83.6 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1957 | .61 | 1962 | 8.21 |
| 1958 | 2.75 | 1963 | .80 |
| 1959 | 8.46 | 1964 | 3.12 |
| 1960 | 8.46 | 1965 | 4.07 |
| 1961 | 4.74 | 1966 | 5.07 |

## AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.822
Departure from normal .000
Highest 29.92 Date 8
Lowest 29.74 Date 23

## AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.1
Departure from normal - 0.8
Highest 91 Date 13
Lowest 68 Date 15

## RAINFALL
(Inches)

Total 5.07
Departure from normal + 0.10
Greatest in 24 hours 1.78
Date 1 - 2

## WIND

Average hourly velocity 5.5 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the NW on the 20

## SUNSHINE

Average number hours per day 4.9
Percentage of possible 42

## NUMBER OF DAYS

Clear 1
Partly Cloudy 13
Cloudy 17
.01 inch of rain or more 17
Thunderstorms 3
Light fog 0
Dense fog 0

Number of hours with rain 52

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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JANUARY 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 74 | 82 | 91 | 53 | 78 | 0 |
| 2 | 89 | 73 | 81 | 96 | 53 | 83 | .09 |
| 3 | 89 | 73 | 81 | 98 | 52 | 80 | 0 |
| 4 | 90 | 72 | 81 | 96 | 47 | 77 | 0 |
| 5 | 90 | 72 | 81 | 96 | 42 | 77 | T |
| 6 | 88 | 72 | 80 | 96 | 47 | 77 | T |
| 7 | 89 | 73 | 81 | 95 | 47 | 77 | 0 |
| 8 | 89 | 73 | 81 | 96 | 47 | 76 | 0 |
| 9 | 90 | 74 | 82 | 90 | 49 | 74 | 0 |
| 10 | 90 | 73 | 82 | 96 | 47 | 75 | 0 |
| 11 | 90 | 74 | 82 | 96 | 40 | 72 | 0 |
| 12 | 88 | 74 | 81 | 96 | 47 | 75 | 0 |
| 13 | 88 | 72 | 80 | 96 | 50 | 78 | .02 |
| 14 | 89 | 72 | 80 | 96 | 53 | 79 | 0 |
| 15 | 90 | 74 | 82 | 94 | 53 | 77 | 0 |
| 16 | 88 | 74 | 81 | 95 | 52 | 76 | 0 |
| 17 | 89 | 73 | 81 | 94 | 40 | 72 | 0 |
| 18 | 90 | 74 | 82 | 93 | 41 | 74 | 0 |
| 19 | 91 | 73 | 82 | 96 | 47 | 77 | 0 |
| 20 | 88 | 73 | 80 | 97 | 50 | 76 | 0 |
| 21 | 90 | 73 | 82 | 97 | 42 | 75 | 0 |
| 22 | 91 | 74 | 82 | 95 | 42 | 74 | 0 |
| 23 | 91 | 73 | 82 | 95 | 43 | 74 | 0 |
| 24 | 89 | 73 | 81 | 96 | 49 | 77 | .01 |
| 25 | 88 | 74 | 81 | 94 | 52 | 78 | .05 |
| 26 | 90 | 75 | 82 | 96 | 44 | 79 | T |
| 27 | 84 | 76 | 80 | 96 | 67 | 86 | .01 |
| 28 | 84 | 73 | 78 | 96 | 64 | 86 | 0 |
| 29 | 86 | 73 | 80 | 96 | 55 | 79 | T |
| 30 | 90 | 75 | 82 | 96 | 42 | 76 | .01 |
| 31 | 90 | 73 | 82 | 95 | 37 | 71 | 0 |
| Sum | 2758 | 2274 | | 2955 | 1494 | | .19 |
| Mean | 89.0 | 73.4 | 81.2 | 95.3 | 48.2 | 76.9 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | .79 | 1963 | 1.94 |
| 1959 | 1.05 | 1964 | T |
| 1960 | 4.47 | 1965 | 1.35 |
| 1961 | .66 | 1966 | 2.42 |
| 1962 | .60 | 1967 | .19 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.825
Departure from normal -0.017
Highest 29.93 Date 21
Lowest 29.72 Date 7

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**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 81.2
Departure from normal +1.2
Highest 91 Date 23
Lowest 72 Date 14

**RAINFALL**
(Inches)

Total .19
Departure from normal -.95
Greatest in 24 hours .09
Date 2

**WIND**

Average hourly velocity 7.2 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the N on the 30

**SUNSHINE**

Average number hours per day 7.5
Percentage of possible 65

**NUMBER OF DAYS**

Clear 11
Partly Cloudy 15
Cloudy 5
.01 inch of rain or more 6
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 7

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## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** FEBRUARY 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 71 | 82 | 94 | 43 | 71 | |
| 2 | 90 | 71 | 80 | 95 | 44 | 76 | T |
| 3 | 90 | 71 | 80 | 99 | 43 | 75 | T |
| 4 | 89 | 74 | 82 | 94 | 46 | 69 | T |
| 5 | 90 | 70 | 80 | 99 | 45 | 72 | T |
| 6 | 90 | 72 | 81 | 98 | 46 | 73 | |
| 7 | 91 | 72 | 82 | 99 | 45 | 74 | |
| 8 | 93 | 71 | 82 | 95 | 37 | 72 | |
| 9 | 90 | 71 | 80 | 98 | 41 | 73 | |
| 10 | 89 | 72 | 80 | 98 | 46 | 74 | |
| 11 | 90 | 70 | 80 | 98 | 44 | 74 | |
| 12 | 93 | 69 | 81 | 97 | 30 | 69 | |
| 13 | 93 | 71 | 82 | 96 | 34 | 69 | |
| 14 | 90 | 71 | 80 | 94 | 43 | 70 | |
| 15 | 92 | 71 | 82 | 98 | 40 | 71 | |
| 16 | 92 | 72 | 82 | 96 | 41 | 72 | |
| 17 | 92 | 72 | 82 | 98 | 41 | 71 | |
| 18 | 92 | 73 | 82 | 96 | 40 | 72 | |
| 19 | 92 | 75 | 84 | 98 | 44 | 74 | |
| 20 | 93 | 73 | 83 | 98 | 39 | 73 | |
| 21 | 91 | 74 | 82 | 96 | 47 | 75 | T |
| 22 | 86 | 73 | 80 | 97 | 60 | 83 | |
| 23 | 92 | 70 | 81 | 99 | 40 | 75 | |
| 24 | 92 | 72 | 82 | 98 | 39 | 69 | |
| 25 | 91 | 71 | 81 | 96 | 41 | 71 | |
| 26 | 92 | 73 | 82 | 96 | 38 | 67 | |
| 27 | 92 | 73 | 82 | 92 | 38 | 68 | |
| 28 | 92 | 73 | 82 | 94 | 42 | 72 | |
| 29 | -- | -- | -- | -- | -- | -- | - |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Sum | 2551 | 2011 | | 2706 | 1177 | | T |
| Mean | 91.1 | 71.8 | 81.4 | 96.6 | 42.0 | 72.4 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1958 | .14 | 1963 | 3.82 |
| 1959 | 0 | 1964 | .46 |
| 1960 | .88 | 1965 | .08 |
| 1961 | .75 | 1966 | T |
| 1962 | .05 | 1967 | T |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.857
Departure from normal: +.003
Highest: 30.00 Date: 14
Lowest: 29.74 Date: 2

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 81.4
Departure from normal: + 0.8
Highest: 93 Date: 12
Lowest: 69 Date: 12

### RAINFALL
(Inches)

Total: T
Departure from normal: - .64
Greatest in 24 hours: T
Date: 2, 3, 4, 5 & 21

### WIND

Average hourly velocity: 8.6 mph.
Prevailing direction: NW
Maximum for five minutes: 25
mph. from the: N on the: 25

### SUNSHINE

Average number hours per day: 9.0
Percentage of possible: 76

### NUMBER OF DAYS

Clear: 14
Partly Cloudy: 11
Cloudy: 3
.01 inch of rain or more: 0
Thunderstorms: 1
Light fog: 0
Dense fog: 0

Number of hours with rain: 0

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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** MARCH 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 74 | 82 | 94 | 40 | 70 | |
| 2 | 90 | 75 | 82 | 90 | 40 | 73 | |
| 3 | 91 | 75 | 83 | 91 | 46 | 72 | |
| 4 | 91 | 74 | 82 | 90 | 42 | 69 | |
| 5 | 92 | 73 | 82 | 94 | 44 | 72 | |
| 6 | 90 | 72 | 81 | 98 | 52 | 76 | |
| 7 | 91 | 70 | 80 | 99 | 43 | 76 | |
| 8 | 93 | 71 | 82 | 98 | 44 | 73 | |
| 9 | 92 | 73 | 82 | 96 | 39 | 70 | |
| 10 | 93 | 73 | 83 | 98 | 42 | 72 | |
| 11 | 92 | 74 | 83 | 95 | 45 | 80 | |
| 12 | 91 | 74 | 82 | 92 | 42 | 79 | |
| 13 | 89 | 74 | 82 | 90 | 49 | 78 | T |
| 14 | 91 | 70 | 80 | 100 | 38 | 80 | |
| 15 | 91 | 71 | 81 | 98 | 42 | 72 | T |
| 16 | 91 | 71 | 81 | 94 | 33 | 66 | |
| 17 | 91 | 70 | 80 | 99 | 39 | 72 | |
| 18 | 85 | 71 | 78 | 96 | 53 | 74 | .01 |
| 19 | 90 | 68 | 79 | 98 | 42 | 74 | |
| 20 | 92 | 70 | 81 | 99 | 36 | 70 | |
| 21 | 90 | 70 | 80 | 98 | 36 | 69 | |
| 22 | 88 | 71 | 80 | 100 | 49 | 80 | 1.35 |
| 23 | 89 | 71 | 80 | 100 | 49 | 81 | .34 |
| 24 | 91 | 71 | 81 | 100 | 41 | 74 | |
| 25 | 90 | 70 | 80 | 98 | 43 | 70 | |
| 26 | 88 | 71 | 80 | 99 | 46 | 75 | |
| 27 | 89 | 70 | 80 | 98 | 48 | 76 | |
| 28 | 89 | 71 | 80 | 98 | 46 | 75 | |
| 29 | 85 | 70 | 78 | 98 | 51 | 82 | .02 |
| 30 | 87 | 72 | 80 | 97 | 50 | 77 | T |
| 31 | 90 | 71 | 80 | 98 | 41 | 73 | |
| Sum | 2793 | 2221 | | 2993 | 1351 | | 1.72 |
| Mean | 90.1 | 71.6 | 80.8 | 96.5 | 43.6 | 74.2 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | T | 1963 | .12 |
| 1959 | T | 1964 | T |
| 1960 | .56 | 1965 | 0 |
| 1961 | .20 | 1966 | .10 |
| 1962 | .17 | 1967 | 1.72 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.873
Departure from normal + 0.030
Highest 30.03 Date 19
Lowest 29.73 Date 6

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.8
Departure from normal - 0.8
Highest 93 Date 8 & 10
Lowest 68 Date 19

**RAINFALL**
**(Inches)**

Total 1.72
Departure from normal + 1.11
Greatest in 24 hours 1.35
Date 22

**WIND**

Average hourly velocity 8.3 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the NW on the 14

**SUNSHINE**

Average number hours per day 8.4
Percentage of possible 69

**NUMBER OF DAYS**

Clear 8
Partly Cloudy 21
Cloudy 2
.01 inch of rain or more 4
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 5

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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** APRIL 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 73 | 81 | 95 | 49 | 76 | |
| 2 | 90 | 74 | 82 | 97 | 56 | 76 | |
| 3 | 90 | 75 | 82 | 94 | 52 | 75 | |
| 4 | 92 | 76 | 84 | 92 | 44 | 71 | |
| 5 | 94 | 76 | 85 | 94 | 46 | 74 | |
| 6 | 93 | 77 | 85 | 92 | 40 | 70 | |
| 7 | 92 | 75 | 84 | 96 | 48 | 74 | |
| 8 | 91 | 75 | 83 | 98 | 50 | 74 | |
| 9 | 92 | 75 | 84 | 96 | 47 | 74 | |
| 10 | 90 | 76 | 83 | 96 | 54 | 78 | .04 |
| 11 | 88 | 74 | 81 | 98 | 60 | 84 | T |
| 12 | 92 | 76 | 84 | 96 | 50 | 79 | .31 |
| 13 | 94 | 75 | 84 | 99 | 47 | 75 | |
| 14 | 89 | 75 | 82 | 98 | 60 | 85 | .02 |
| 15 | 84 | 74 | 79 | 100 | 74 | 95 | .75 |
| 16 | 90 | 73 | 82 | 100 | 59 | 87 | .13 |
| 17 | 92 | 73 | 82 | 98 | 52 | 86 | 1.31 |
| 18 | 87 | 73 | 80 | 97 | 53 | 84 | .01 |
| 19 | 86 | 74 | 80 | 97 | 55 | 87 | .07 |
| 20 | 84 | 71 | 78 | 97 | 57 | 80 | |
| 21 | 84 | 74 | 79 | 96 | 65 | 84 | T |
| 22 | 86 | 72 | 79 | 96 | 56 | 86 | T |
| 23 | 86 | 71 | 78 | 98 | 56 | 82 | .03 |
| 24 | 91 | 72 | 82 | 98 | 44 | 75 | |
| 25 | 89 | 73 | 81 | 96 | 48 | 72 | T |
| 26 | 92 | 72 | 82 | 95 | 38 | 70 | |
| 27 | 88 | 75 | 82 | 100 | 56 | 89 | 1.87 |
| 28 | 83 | 73 | 78 | 98 | 72 | 90 | 1.19 |
| 29 | 82 | 73 | 78 | 98 | 70 | 88 | .02 |
| 30 | 88 | 72 | 80 | 98 | 50 | 82 | .21 |
| 31 | | | | | | | |
| Sum | 2668 | 2217 | --- | 2903 | 1608 | --- | 5.96 |
| Mean | 88.9 | 73.9 | 81.4 | 96.8 | 53.6 | 80.1 | ---- |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | 3.01 | 1963 | 6.04 |
| 1959 | 1.46 | 1964 | 6.54 |
| 1960 | 6.83 | 1965 | .26 |
| 1961 | 2.09 | 1966 | 3.19 |
| 1962 | .43 | 1967 | 5.96 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.852
Departure from normal + 0.021
Highest 30.00 Date 23
Lowest 29.70 Date 12

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 81.4
Departure from normal - 0.8
Highest 94 Date 13
Lowest 71 Date 20

**RAINFALL**
**(Inches)**

Total 5.96
Departure from normal + 3.20
Greatest in 24 hours 2.99
Date 27 and 28

**WIND**

Average hourly velocity 5.8 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the NW on the 2

**SUNSHINE**

Average number hours per day 6.1
Percentage of possible 49

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 13
Cloudy 17
.01 inch of rain or more 13
Thunderstorms 6
Light fog 0
Dense fog 0

Number of hours with rain 35

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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, C. Z. Month: MAY 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 73 | 80 | 98 | 55 | 84 | 0 |
| 2 | 88 | 72 | 80 | 98 | 54 | 85 | .34 |
| 3 | 89 | 72 | 80 | 98 | 56 | 86 | .08 |
| 4 | 91 | 73 | 82 | 98 | 44 | 76 | 0 |
| 5 | 91 | 74 | 82 | 96 | 50 | 76 | 0 |
| 6 | 91 | 74 | 82 | 97 | 52 | 79 | T |
| 7 | 86 | 76 | 81 | 96 | 62 | 84 | 0 |
| 8 | 90 | 74 | 82 | 98 | 58 | 87 | 0 |
| 9 | 88 | 75 | 82 | 97 | 61 | 87 | T |
| 10 | 88 | 74 | 81 | 98 | 60 | 91 | .05 |
| 11 | 80 | 75 | 78 | 98 | 81 | 94 | .15 |
| 12 | 85 | 75 | 80 | 98 | 67 | 94 | .42 |
| 13 | 83 | 74 | 78 | 100 | 74 | 91 | .02 |
| 14 | 92 | 73 | 82 | 98 | 52 | 80 | 0 |
| 15 | 88 | 74 | 82 | 97 | 62 | 88 | .10 |
| 16 | 86 | 74 | 80 | 98 | 62 | 88 | 0 |
| 17 | 89 | 74 | 82 | 98 | 60 | 85 | T |
| 18 | 85 | 75 | 80 | 97 | 58 | 91 | .10 |
| 19 | 88 | 74 | 81 | 97 | 58 | 85 | 0 |
| 20 | 90 | 72 | 81 | 98 | 48 | 74 | 0 |
| 21 | 88 | 74 | 81 | 99 | 57 | 80 | .10 |
| 22 | 91 | 74 | 82 | 98 | 56 | 88 | 1.42 |
| 23 | 91 | 75 | 83 | 97 | 52 | 82 | T |
| 24 | 92 | 76 | 84 | 97 | 46 | 73 | 0 |
| 25 | 89 | 76 | 82 | 95 | 55 | 76 | 0 |
| 26 | 92 | 76 | 82 | 94 | 50 | 74 | 0 |
| 27 | 91 | 78 | 84 | 98 | 52 | 75 | 0 |
| 28 | 86 | 76 | 81 | 96 | 66 | 88 | .95 |
| 29 | 88 | 76 | 82 | 96 | 70 | 87 | .03 |
| 30 | 87 | 74 | 80 | 100 | 62 | 88 | .44 |
| 31 | 88 | 75 | 82 | 98 | 66 | 90 | 1.02 |
| Sum | 2737 | 2307 | | 3021 | 1806 | | 5.22 |
| Mean | 88.3 | 74.4 | 81.4 | 97.5 | 58.3 | 84.1 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | 10.42 | 1963 | 5.00 |
| 1959 | 9.23 | 1964 | 6.72 |
| 1960 | 7.28 | 1965 | 13.14 |
| 1961 | 5.02 | 1966 | 13.40 |
| 1962 | 5.54 | 1967 | 5.22 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.839
Departure from normal + 0.014
Highest 29.97 Date 17
Lowest 29.73 Date 23

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 81.4
Departure from normal + 0.5
Highest 92 Date 24
Lowest 72 Date 3+

**RAINFALL**
**(Inches)**

Total 5.22
Departure from normal - 2.79
Greatest in 24 hours 1.42
Date 22

**WIND**

Average hourly velocity 5.8 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the NW on the 21+

**SUNSHINE**

Average number hours per day 6.4
Percentage of possible 51

**NUMBER OF DAYS**

Clear 1
Partly Cloudy 11
Cloudy 19
.01 inch of rain or more 14
Thunderstorms 7
Light fog 0
Dense fog 0

Number of hours with rain 32

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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** June 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 80 | 75 | 78 | 98 | 84 | 94 | .06 |
| 2 | 85 | 74 | 80 | 96 | 65 | 89 | .03 |
| 3 | 84 | 72 | 78 | 98 | 70 | 90 | .28 |
| 4 | 84 | 73 | 78 | 97 | 71 | 89 | .09 |
| 5 | 85 | 72 | 78 | 97 | 65 | 85 | T |
| 6 | 82 | 75 | 82 | 98 | 72 | 88 | .04 |
| 7 | 83 | 74 | 78 | 100 | 65 | 86 | .46 |
| 8 | 85 | 75 | 80 | 96 | 62 | 79 | 0 |
| 9 | 85 | 75 | 80 | 94 | 66 | 81 | 0 |
| 10 | 90 | 74 | 82 | 94 | 54 | 86 | .95 |
| 11 | 84 | 72 | 78 | 95 | 65 | 84 | T |
| 12 | 88 | 72 | 80 | 93 | 56 | 80 | 0 |
| 13 | 89 | 73 | 81 | 98 | 56 | 85 | T |
| 14 | 86 | 75 | 80 | 100 | 67 | 89 | 0 |
| 15 | 84 | 74 | 79 | 100 | 74 | 93 | .21 |
| 16 | 82 | 71 | 76 | 100 | 72 | 90 | T |
| 17 | 84 | 73 | 78 | 100 | 70 | 88 | .58 |
| 18 | 84 | 74 | 79 | 98 | 71 | 91 | .90 |
| 19 | 83 | 71 | 77 | 96 | 68 | 86 | 0 |
| 20 | 86 | 73 | 80 | 98 | 61 | 87 | T |
| 21 | 86 | 74 | 80 | 98 | 64 | 87 | T |
| 22 | 84 | 75 | 80 | 98 | 70 | 87 | .01 |
| 23 | 89 | 74 | 82 | 96 | 59 | 87 | .01 |
| 24 | 85 | 74 | 80 | 98 | 69 | 87 | .05 |
| 25 | 87 | 74 | 80 | 98 | 67 | 88 | .31 |
| 26 | 86 | 72 | 79 | 99 | 64 | 92 | 2.38 |
| 27 | 86 | 72 | 79 | 99 | 63 | 86 | .01 |
| 28 | 87 | 74 | 80 | 96 | 60 | 87 | .05 |
| 29 | 89 | 74 | 82 | 98 | 50 | 84 | .02 |
| 30 | 86 | 75 | 80 | 98 | 66 | 91 | .09 |
| 31 | | | | | | | |
| Sum | 2558 | 2205 | | 2924 | 1966 | | 6.53 |
| Mean | 85.3 | 73.5 | 79.4 | 97.5 | 65.5 | 87.2 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | 5.50 | 1963 | 7.35 |
| 1959 | 4.57 | 1964 | 6.07 |
| 1960 | 5.36 | 1965 | 4.91 |
| 1961 | 10.72 | 1966 | 13.90 |
| 1962 | 10.20 | 1967 | 6.53 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.803
Departure from normal + 0.007
Highest 29.92 Date 17th
Lowest 29.73 Date 30th

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.4
Departure from normal -0.7
Highest 90 Date 10th
Lowest 71 Date 16th

**RAINFALL**
**(Inches)**

Total 6.53
Departure from normal -1.55
Greatest in 24 hours 2.39
Date 26-27

**WIND**

Average hourly velocity 4.8 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the S on the 8th

**SUNSHINE**

Average number hours per day 5.3
Percentage of possible 42

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 5
Cloudy 25
.01 inch of rain or more 19
Thunderstorms 9
Light fog 0
Dense fog 0

Number of hours with rain 69

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C.Z. **Month:** JULY 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 75 | 80 | 98 | 72 | 91 | .03 |
| 2 | 91 | 74 | 82 | 98 | 60 | 84 | 0 |
| 3 | 82 | 72 | 77 | 96 | 73 | 91 | .18 |
| 4 | 85 | 71 | 78 | 99 | 66 | 88 | .49 |
| 5 | 90 | 71 | 80 | 97 | 57 | 83 | T |
| 6 | 85 | 73 | 79 | 98 | 66 | 90 | .44 |
| 7 | 86 | 72 | 79 | 98 | 64 | 86 | .06 |
| 8 | 86 | 74 | 80 | 96 | 68 | 87 | 0 |
| 9 | 88 | 73 | 80 | 96 | 62 | 88 | .06 |
| 10 | 87 | 72 | 80 | 97 | 64 | 84 | 0 |
| 11 | 92 | 74 | 83 | 98 | 53 | 88 | .28 |
| 12 | 88 | 74 | 81 | 98 | 63 | 86 | T |
| 13 | 90 | 72 | 81 | 96 | 47 | 76 | 0 |
| 14 | 78 | 74 | 76 | 99 | 78 | 91 | .28 |
| 15 | 85 | 72 | 78 | 98 | 60 | 87 | 0 |
| 16 | 82 | 73 | 78 | 97 | 71 | 90 | 0 |
| 17 | 82 | 72 | 77 | 97 | 76 | 89 | 0 |
| 18 | 88 | 73 | 80 | 98 | 64 | 91 | 2.00 |
| 19 | 88 | 73 | 80 | 98 | 62 | 86 | .01 |
| 20 | 86 | 74 | 80 | 98 | 66 | 90 | .43 |
| 21 | 84 | 72 | 78 | 98 | 60 | 86 | .17 |
| 22 | 83 | 72 | 78 | 96 | 70 | 93 | .53 |
| 23 | 83 | 71 | 77 | 97 | 66 | 88 | .08 |
| 24 | 92 | 72 | 82 | 98 | 52 | 80 | .03 |
| 25 | 90 | 74 | 82 | 96 | 58 | 81 | 0 |
| 26 | 89 | 73 | 81 | 98 | 57 | 87 | .87 |
| 27 | 87 | 74 | 80 | 98 | 66 | 87 | 0 |
| 28 | 90 | 74 | 82 | 96 | 58 | 86 | T |
| 29 | 87 | 74 | 80 | 96 | 58 | 90 | .36 |
| 30 | 84 | 70 | 77 | 100 | 62 | 84 | 1.26 |
| 31 | 87 | 73 | 80 | 98 | 56 | 82 | .55 |
| Sum | 2679 | 2257 | | 3021 | 1955 | | 8.11 |
| Mean | 86.4 | 72.8 | 79.6 | 97.5 | 63.1 | 86.8 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | 6.31 | 1963 | 8.38 |
| 1959 | 5.59 | 1964 | 5.38 |
| 1960 | 5.61 | 1965 | 3.64 |
| 1961 | 8.40 | 1966 | 11.39 |
| 1962 | 5.69 | 1967 | 8.11 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.840
Departure from normal +.009
Highest 29.97 Date 31
Lowest 29.73 Date 2

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.6
Departure from normal -0.8
Highest 92 Date 24
Lowest 70 Date 30

**RAINFALL**
**(Inches)**

Total 8.11
Departure from normal + .70
Greatest in 24 hours 2.01
Date 18 & 19

**WIND**

Average hourly velocity 5.5 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the NW on the 2

**SUNSHINE**

Average number hours per day 5.2
Percentage of possible 42

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 6
Cloudy 25
.01 inch of rain or more 19
Thunderstorms 12
Light fog 0
Dense fog 0

Number of hours with rain 59

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# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

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## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C.Z. **Month:** AUGUST 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 73 | 80 | 86 | 64 | 86 | .30 |
| 2 | 89 | 74 | 82 | 88 | 58 | 83 | .03 |
| 3 | 88 | 74 | 81 | 87 | 65 | 87 | 0 |
| 4 | 86 | 74 | 80 | 98 | 70 | 91 | 2.00 |
| 5 | 87 | 72 | 80 | 98 | 60 | 84 | 0 |
| 6 | 89 | 73 | 81 | 97 | 62 | 89 | .38 |
| 7 | 87 | 74 | 80 | 98 | 61 | 85 | T |
| 8 | 83 | 72 | 78 | 100 | 69 | 93 | 3.02 |
| 9 | 79 | 71 | 75 | 100 | 80 | 93 | .96 |
| 10 | 86 | 71 | 78 | 98 | 56 | 93 | 0 |
| 11 | 86 | 72 | 79 | 97 | 60 | 83 | 0 |
| 12 | 88 | 73 | 80 | 97 | 60 | 84 | T |
| 13 | 79 | 71 | 75 | 98 | 82 | 85 | .42 |
| 14 | 87 | 72 | 80 | 98 | 61 | 91 | .75 |
| 15 | 83 | 74 | 78 | 98 | 74 | 90 | .07 |
| 16 | 87 | 74 | 80 | 97 | 70 | 88 | 0 |
| 17 | 87 | 74 | 80 | 96 | 66 | 89 | .02 |
| 18 | 88 | 73 | 80 | 97 | 58 | 86 | T |
| 19 | 90 | 72 | 81 | 98 | 58 | 92 | 1.17 |
| 20 | 88 | 72 | 80 | 99 | 61 | 86 | 0 |
| 21 | 89 | 73 | 81 | 96 | 59 | 84 | .01 |
| 22 | 87 | 72 | 80 | 94 | 60 | 85 | 0 |
| 23 | 88 | 75 | 82 | 96 | 60 | 84 | 0 |
| 24 | 86 | 74 | 80 | 98 | 70 | 90 | .77 |
| 25 | 88 | 74 | 81 | 98 | 60 | 83 | .04 |
| 26 | 78 | 73 | 76 | 98 | 81 | 91 | .05 |
| 27 | 85 | 72 | 78 | 97 | 62 | 86 | .01 |
| 28 | 90 | 74 | 82 | 96 | 60 | 84 | .01 |
| 29 | 92 | 74 | 83 | 96 | 50 | 80 | 0 |
| 30 | 84 | 73 | 78 | 97 | 67 | 90 | 1.66 |
| 31 | 80 | 73 | 76 | 99 | 79 | 94 | .47 |
| Sum | 2672 | 2262 | -- | 2990 | 2003 | -- | 12.14 |
| Mean | 86.2 | 73.0 | 79.6 | 96.5 | 64.6 | 87.3 | -- |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1958 | 9.65 | 1963 | 6.86 |
| 1959 | 7.62 | 1964 | 9.62 |
| 1960 | 11.74 | 1965 | 7.74 |
| 1961 | 5.92 | 1966 | 3.54 |
| 1962 | 6.43 | 1967 | 12.14 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.838
Departure from normal + .006
Highest 29.95 Date 11
Lowest 29.70 Date 29

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.6
Departure from normal - 0.6
Highest 92 Date 29
Lowest 71 Date 9

### RAINFALL
(Inches)

Total 12.14
Departure from normal + 4.35
Greatest in 24 hours 3.98
Date 8 & 9

### WIND

Average hourly velocity 4.8 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the N on the 19

### SUNSHINE

Average number hours per day 4.6
Percentage of possible 37

### NUMBER OF DAYS

Clear 0
Partly Cloudy 3
Cloudy 28
.01 inch of rain or more 19
Thunderstorms 13
Light fog 1
Dense fog 0

Number of hours with rain 53

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C.Z. **Month:** SEPTEMBER, 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 72 | 80 | 97 | 63 | 88 | .04 |
| 2 | 86 | 74 | 80 | 96 | 64 | 86 | .01 |
| 3 | 86 | 73 | 80 | 97 | 62 | 87 | .20 |
| 4 | 86 | 73 | 80 | 96 | 58 | 88 | .17 |
| 5 | 88 | 73 | 80 | 96 | 62 | 87 | .05 |
| 6 | 92 | 73 | 82 | 96 | 54 | 90 | 1.11 |
| 7 | 85 | 71 | 78 | 98 | 66 | 91 | .28 |
| 8 | 87 | 72 | 80 | 97 | 62 | 88 | .01 |
| 9 | 85 | 72 | 78 | 98 | 60 | 87 | 1.32 |
| 10 | 82 | 72 | 77 | 98 | 68 | 92 | .40 |
| 11 | 86 | 71 | 78 | 96 | 62 | 88 | T |
| 12 | 87 | 72 | 80 | 97 | 59 | 92 | 1.66 |
| 13 | 86 | 69 | 78 | 98 | 64 | 84 | 0 |
| 14 | 86 | 74 | 80 | 97 | 64 | 81 | .07 |
| 15 | 85 | 74 | 80 | 96 | 67 | 84 | .02 |
| 16 | 86 | 72 | 79 | 96 | 62 | 84 | T |
| 17 | 89 | 73 | 81 | 96 | 50 | 82 | .01 |
| 18 | 90 | 73 | 82 | 95 | 58 | 82 | .03 |
| 19 | 85 | 70 | 78 | 100 | 70 | 92 | .62 |
| 20 | 84 | 72 | 78 | 96 | 56 | 88 | T |
| 21 | 86 | 72 | 79 | 96 | 60 | 86 | 0 |
| 22 | 85 | 73 | 79 | 96 | 62 | 85 | 0 |
| 23 | 86 | 73 | 80 | 96 | 63 | 84 | .03 |
| 24 | 88 | 73 | 80 | 95 | 53 | 82 | 0 |
| 25 | 87 | 73 | 80 | 95 | 64 | 83 | 0 |
| 26 | 84 | 74 | 79 | 95 | 66 | 87 | T |
| 27 | 88 | 72 | 80 | 96 | 61 | 87 | 4.12 |
| 28 | 82 | 74 | 78 | 96 | 72 | 85 | 1.04 |
| 29 | 86 | 75 | 80 | 90 | 62 | 78 | 0 |
| 30 | 81 | 74 | 78 | 96 | 78 | 92 | 1.80 |
| 31 | | | | | | | |
| Sum | 2581 | 2178 | | 2887 | 1872 | | 12.99 |
| Mean | 86.0 | 72.6 | 79.3 | 96.2 | 62.4 | 86.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | 13.74 | 1963 | 5.17 |
| 1959 | 5.79 | 1964 | 6.91 |
| 1960 | 6.03 | 1965 | 9.10 |
| 1961 | 7.19 | 1966 | 10.97 |
| 1962 | 5.39 | 1967 | 12.99 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.848
Departure from normal + 0.022
Highest 29.96 Date 10
Lowest 29.72 Date 14

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.3
Departure from normal - 0.5
Highest 92 Date 6
Lowest 69 Date 13

**RAINFALL**
**(Inches)**

Total 12.99
Departure from normal + 5.09
Greatest in 24 hours 4.56
Date 27 - 28

**WIND**

Average hourly velocity 4.4 mph.
Prevailing direction NW
Maximum for five minutes 29
mph. from the NW on the 6th

**SUNSHINE**

Average number hours per day 5.9
Percentage of possible 49

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 10
Cloudy 20
.01 inch of rain or more 20
Thunderstorms 19
Light fog 0
Dense fog 0

Number of hours with rain 73

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# PANAMA CANAL COMPANY

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METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** OCTOBER 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 72 | 80 | 90 | 58 | 86 | 0 |
| 2 | 86 | 71 | 78 | 96 | 58 | 86 | 0 |
| 3 | 80 | 72 | 76 | 96 | 74 | 92 | .14 |
| 4 | 88 | 70 | 79 | 97 | 60 | 85 | 0 |
| 5 | 88 | 72 | 80 | 96 | 60 | 88 | .03 |
| 6 | 87 | 74 | 80 | 96 | 60 | 84 | 0 |
| 7 | 89 | 74 | 82 | 96 | 59 | 89 | .08 |
| 8 | 87 | 73 | 80 | 97 | 65 | 92 | 1.61 |
| 9 | 83 | 72 | 78 | 97 | 72 | 91 | .20 |
| 10 | 81 | 72 | 76 | 98 | 76 | 89 | .01 |
| 11 | 89 | 73 | 81 | 96 | 53 | 85 | T |
| 12 | 87 | 73 | 80 | 96 | 62 | 88 | .04 |
| 13 | 84 | 73 | 78 | 96 | 61 | 90 | .01 |
| 14 | 90 | 72 | 81 | 96 | 58 | 86 | 0 |
| 15 | 88 | 74 | 81 | 96 | 60 | 87 | .05 |
| 16 | 87 | 73 | 80 | 95 | 60 | 85 | .01 |
| 17 | 90 | 74 | 82 | 95 | 54 | 87 | 0 |
| 18 | 87 | 72 | 80 | 96 | 63 | 89 | .05 |
| 19 | 85 | 72 | 78 | 95 | 63 | 87 | .35 |
| 20 | 84 | 72 | 78 | 95 | 68 | 85 | 0 |
| 21 | 87 | 73 | 80 | 95 | 64 | 86 | .22 |
| 22 | 84 | 74 | 79 | 96 | 67 | 87 | .20 |
| 23 | 86 | 72 | 79 | 97 | 64 | 89 | T |
| 24 | 87 | 71 | 79 | 96 | 64 | 86 | 0 |
| 25 | 85 | 71 | 78 | 96 | 63 | 85 | 0 |
| 26 | 78 | 72 | 75 | 97 | 80 | 93 | .66 |
| 27 | 85 | 70 | 78 | 96 | 64 | 91 | .45 |
| 28 | 85 | 71 | 78 | 97 | 66 | 90 | .99 |
| 29 | 86 | 72 | 79 | 96 | 62 | 85 | .03 |
| 30 | 86 | 72 | 79 | 97 | 61 | 89 | 1.38 |
| 31 | 85 | 72 | 78 | 95 | 57 | 86 | .94 |
| Sum | 2661 | 2240 | -- | 2973 | 1956 | -- | 7.45 |
| Mean | 85.8 | 72.3 | 79.0 | 95.9 | 63.1 | 87.7 | -- |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | 9.96 | 1963 | 7.65 |
| 1959 | 18.50 | 1964 | 10.55 |
| 1960 | 5.74 | 1965 | 12.09 |
| 1961 | 10.58 | 1966 | 23.21 |
| 1962 | 13.45 | 1967 | 7.45 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.830
Departure from normal + .003
Highest 29.95 Date 26
Lowest 29.70 Date 18

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.0
Departure from normal - 0.2
Highest 90 Date 17
Lowest 70 Date 27

### RAINFALL
(Inches)

Total 7.45
Departure from normal - 3.33
Greatest in 24 hours 1.62
Date 8 & 9

### WIND

Average hourly velocity 3.9 mph.
Prevailing direction NW
Maximum for five minutes 25
mph. from the NW on the 28

### SUNSHINE

Average number hours per day 6.1
Percentage of possible 51

### NUMBER OF DAYS

Clear 0
Partly Cloudy 4
Cloudy 27
.01 inch of rain or more 20
Thunderstorms 17
Light fog 0
Dense fog 0

Number of hours with rain 61

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# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights **Month:** November 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 72 | 78 | 96 | 69 | 88 | .38 |
| 2 | 82 | 72 | 77 | 96 | 67 | 90 | .22 |
| 3 | 87 | 72 | 80 | 96 | 60 | 84 | .01 |
| 4 | 86 | 72 | 79 | 96 | 60 | 86 | .29 |
| 5 | 88 | 72 | 80 | 96 | 60 | 87 | 1.53 |
| 6 | 87 | 72 | 80 | 96 | 61 | 89 | .28 |
| 7 | 88 | 72 | 80 | 96 | 59 | 89 | 1.63 |
| 8 | 90 | 72 | 81 | 96 | 58 | 86 | 1.18 |
| 9 | 81 | 73 | 77 | 95 | 73 | 89 | .01 |
| 10 | 83 | 71 | 77 | 96 | 72 | 90 | .32 |
| 11 | 86 | 71 | 78 | 96 | 60 | 89 | .60 |
| 12 | 86 | 72 | 79 | 95 | 62 | 89 | 1.24 |
| 13 | 85 | 72 | 78 | 95 | 68 | 89 | .46 |
| 14 | 88 | 72 | 80 | 96 | 56 | 85 | T |
| 15 | 86 | 72 | 79 | 96 | 60 | 85 | .02 |
| 16 | 86 | 73 | 80 | 96 | 64 | 88 | .88 |
| 17 | 88 | 72 | 80 | 96 | 56 | 86 | .03 |
| 18 | 85 | 73 | 79 | 96 | 60 | 84 | 0 |
| 19 | 88 | 72 | 80 | 94 | 59 | 81 | 0 |
| 20 | 83 | 74 | 78 | 96 | 74 | 91 | .40 |
| 21 | 85 | 73 | 79 | 96 | 62 | 87 | T |
| 22 | 82 | 72 | 77 | 96 | 74 | 93 | .48 |
| 23 | 85 | 71 | 78 | 98 | 64 | 89 | .28 |
| 24 | 88 | 71 | 80 | 96 | 50 | 81 | 0 |
| 25 | 88 | 71 | 80 | 95 | 56 | 86 | .37 |
| 26 | 88 | 73 | 80 | 95 | 54 | 87 | .70 |
| 27 | 82 | 72 | 77 | 96 | 68 | 88 | .14 |
| 28 | 80 | 73 | 76 | 96 | 80 | 92 | .42 |
| 29 | 88 | 70 | 79 | 96 | 58 | 86 | T |
| 30 | 89 | 72 | 80 | 94 | 54 | 82 | 0 |
| 31 | | | | | | | |
| Sum | 2572 | 2161 | | 2873 | 1878 | | 11.87 |
| Mean | 85.7 | 72.0 | 78.8 | 95.8 | 62.6 | 87.2 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | 12.65 | 1963 | 10.49 |
| 1959 | 8.00 | 1964 | 12.01 |
| 1960 | 11.14 | 1965 | 17.16 |
| 1961 | 8.49 | 1966 | 9.18 |
| 1962 | 13.39 | 1967 | 11.87 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.828
Departure from normal + 0.007
Highest 29.95 Date 16th
Lowest 29.70 Date 6th

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 78.8
Departure from normal - 0.4
Highest 90 Date 8th
Lowest 70 Date 29th

**RAINFALL**
**(Inches)**

Total 11.87
Departure from normal + 1.49
Greatest in 24 hours 1.63
Date 7th

**WIND**

Average hourly velocity 4.6 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the N on the 5th

**SUNSHINE**

Average number hours per day 4.7
Percentage of possible 40

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 10
Cloudy 20
.01 inch of rain or more 23
Thunderstorms 14
Fog 1
Dense fog 1
Number of hours with rain 70

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METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** DECEMBER 1967

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 74 | 80 | 94 | 62 | 84 | 0 |
| 2 | 88 | 75 | 82 | 94 | 62 | 87 | .07 |
| 3 | 88 | 74 | 81 | 94 | 60 | 86 | .36 |
| 4 | 87 | 74 | 80 | 96 | 68 | 87 | .05 |
| 5 | 88 | 74 | 81 | 94 | 61 | 86 | 2.24 |
| 6 | 87 | 74 | 80 | 92 | 62 | 88 | .11 |
| 7 | 87 | 73 | 80 | 95 | 62 | 85 | .54 |
| 8 | 89 | 74 | 82 | 95 | 55 | 85 | 1.15 |
| 9 | 89 | 74 | 82 | 96 | 58 | 83 | T |
| 10 | 84 | 75 | 80 | 95 | 62 | 85 | 0 |
| 11 | 88 | 76 | 82 | 94 | 60 | 89 | .33 |
| 12 | 79 | 75 | 77 | 94 | 84 | 92 | .12 |
| 13 | 87 | 73 | 80 | 95 | 60 | 83 | .03 |
| 14 | 90 | 74 | 82 | 94 | 47 | 79 | 0 |
| 15 | 90 | 72 | 81 | 93 | 43 | 76 | .04 |
| 16 | 88 | 71 | 80 | 98 | 52 | 85 | .20 |
| 17 | 88 | 72 | 80 | 95 | 56 | 85 | T |
| 18 | 90 | 71 | 80 | 94 | 48 | 85 | T |
| 19 | 90 | 72 | 81 | 94 | 56 | 82 | .19 |
| 20 | 90 | 73 | 82 | 95 | 54 | 82 | T |
| 21 | 86 | 73 | 80 | 96 | 58 | 90 | 2.35 |
| 22 | 89 | 71 | 80 | 98 | 44 | 85 | .03 |
| 23 | 90 | 72 | 81 | 97 | 52 | 85 | .28 |
| 24 | 88 | 71 | 80 | 98 | 48 | 80 | 0 |
| 25 | 91 | 70 | 80 | 97 | 46 | 78 | 0 |
| 26 | 88 | 70 | 79 | 98 | 50 | 85 | .22 |
| 27 | 89 | 70 | 80 | 99 | 48 | 80 | .01 |
| 28 | 89 | 71 | 80 | 96 | 52 | 79 | T |
| 29 | 89 | 69 | 79 | 94 | 47 | 81 | .13 |
| 30 | 87 | 71 | 79 | 94 | 49 | 83 | .22 |
| 31 | 90 | 70 | 80 | 95 | 44 | 76 | 0 |
| Sum | 2729 | 2248 | | 2955 | 1710 | | 8.67 |
| Mean | 88.0 | 72.5 | 80.2 | 95.3 | 55.2 | 83.7 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1958 | 2.75 | 1963 | .80 |
| 1959 | 8.46 | 1964 | 3.12 |
| 1960 | 8.46 | 1965 | 4.07 |
| 1961 | 4.74 | 1966 | 5.07 |
| 1962 | 8.21 | 1967 | 8.67 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.848
Departure from normal + 0.025
Highest 29.98 Date 26
Lowest 29.70 Date 10

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.2
Departure from normal + 0.3
Highest 91 Date 25
Lowest 69 Date 29

**RAINFALL**
**(Inches)**

Total 8.67
Departure from normal + 3.65
Greatest in 24 hours 2.38
Date 21-22

**WIND**

Average hourly velocity 4.7 mph.
Prevailing direction NW
Maximum for five minutes 16
mph. from the NW on the 6

**SUNSHINE**

Average number hours per day 8.1
Percentage of possible 70

**NUMBER OF DAYS**

Clear 2
Partly Cloudy 17
Cloudy 12
.01 inch of rain or more 20
Thunderstorms 6
Light fog 0
Dense fog 0
Number of hours with rain 47

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# PANAMA CANAL COMPANY
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METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS **Month:** JANUARY 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 70 | 80 | 94 | 42 | 72 | |
| 2 | 91 | 70 | 80 | 94 | 46 | 73 | |
| 3 | 92 | 71 | 82 | 95 | 39 | 73 | |
| 4 | 90 | 71 | 80 | 94 | 48 | 75 | |
| 5 | 87 | 72 | 80 | 90 | 50 | 73 | |
| 6 | 90 | 71 | 80 | 95 | 46 | 73 | |
| 7 | 90 | 72 | 81 | 94 | 46 | 72 | |
| 8 | 88 | 72 | 80 | 92 | 47 | 72 | |
| 9 | 89 | 70 | 80 | 94 | 47 | 73 | |
| 10 | 93 | 72 | 82 | 94 | 40 | 71 | |
| 11 | 89 | 70 | 80 | 94 | 47 | 75 | |
| 12 | 89 | 72 | 80 | 94 | 47 | 74 | |
| 13 | 90 | 70 | 80 | 94 | 47 | 75 | |
| 14 | 90 | 71 | 80 | 96 | 42 | 75 | |
| 15 | 91 | 71 | 81 | 94 | 40 | 71 | |
| 16 | 91 | 72 | 82 | 98 | 42 | 73 | |
| 17 | 90 | 73 | 82 | 94 | 48 | 73 | |
| 18 | 88 | 74 | 81 | 93 | 50 | 74 | T |
| 19 | 90 | 73 | 82 | 94 | 42 | 72 | T |
| 20 | 90 | 70 | 80 | 98 | 37 | 72 | T |
| 21 | 92 | 69 | 80 | 99 | 38 | 74 | |
| 22 | 92 | 70 | 81 | 98 | 34 | 72 | |
| 23 | 90 | 70 | 80 | 97 | 40 | 73 | |
| 24 | 91 | 69 | 80 | 97 | 39 | 74 | |
| 25 | 92 | 70 | 81 | 96 | 38 | 71 | |
| 26 | 92 | 71 | 82 | 94 | 36 | 69 | |
| 27 | 92 | 71 | 82 | 96 | 40 | 70 | |
| 28 | 90 | 71 | 80 | 94 | 44 | 74 | |
| 29 | 92 | 72 | 82 | 94 | 40 | 72 | |
| 30 | 90 | 70 | 80 | 97 | 43 | 75 | T |
| 31 | 92 | 68 | 80 | 97 | 34 | 70 | |
| Sum | 2804 | 2198 | -- | 2944 | 1319 | -- | T |
| Mean | 90.5 | 70.9 | 80.7 | 95.0 | 42.5 | 72.7 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1959 | 1.05 | 1964 | T |
| 1960 | 4.47 | 1965 | 1.35 |
| 1961 | .66 | 1966 | 2.42 |
| 1962 | .60 | 1967 | .19 |
| 1963 | 1.94 | 1968 | T |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.855
Departure from normal + .013
Highest 29.93 Date 8
Lowest 29.75 Date 24

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 80.7
Departure from normal + 0.7
Highest 93 Date 10
Lowest 68 Date 31

**RAINFALL**
(Inches)

Total T
Departure from normal -1.12
Greatest in 24 hours T
Date 17,18,19,30

**WIND**

Average hourly velocity 7.7 mph.
Prevailing direction N
Maximum for five minutes 21
mph. from the N on the 17

**SUNSHINE**

Average number hours per day 10.7
Percentage of possible 92

**NUMBER OF DAYS**

Clear 23
Partly Cloudy 8
Cloudy 0
.01 inch of rain or more 0
Thunderstorms 0
Light fog 0
Dense fog 0
Number of hours with rain 0

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** February 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 68 | 80 | 98 | 37 | 71 | 0 |
| 2 | 91 | 68 | 80 | 98 | 35 | 72 | 0 |
| 3 | 88 | 69 | 78 | 99 | 44 | 87 | 1.07 |
| 4 | 89 | 68 | 78 | 98 | 39 | 76 | 0 |
| 5 | 90 | 69 | 80 | 97 | 36 | 72 | T |
| 6 | 90 | 68 | 79 | 97 | 32 | 69 | 0 |
| 7 | 89 | 70 | 80 | 95 | 42 | 71 | 0 |
| 8 | 90 | 70 | 80 | 96 | 38 | 69 | 0 |
| 9 | 87 | 72 | 80 | 82 | 46 | 68 | 0 |
| 10 | 88 | 74 | 81 | 90 | 38 | 64 | 0 |
| 11 | 84 | 74 | 79 | 94 | 64 | 80 | 0 |
| 12 | 89 | 72 | 80 | 96 | 46 | 78 | .16 |
| 13 | 85 | 73 | 79 | 94 | 52 | 77 | T |
| 14 | 91 | 72 | 82 | 94 | 38 | 70 | 0 |
| 15 | 90 | 72 | 81 | 94 | 43 | 67 | 0 |
| 16 | 86 | 74 | 80 | 88 | 54 | 76 | 0 |
| 17 | 91 | 75 | 83 | 90 | 48 | 72 | 0 |
| 18 | 87 | 74 | 80 | 95 | 54 | 77 | 0 |
| 19 | 90 | 74 | 82 | 96 | 50 | 76 | 0 |
| 20 | 87 | 74 | 80 | 95 | 57 | 80 | 0 |
| 21 | 85 | 72 | 78 | 95 | 60 | 86 | .22 |
| 22 | 82 | 72 | 77 | 93 | 68 | 86 | T |
| 23 | 85 | 73 | 79 | 96 | 66 | 85 | T |
| 24 | 88 | 73 | 80 | 99 | 52 | 87 | .27 |
| 25 | 89 | 72 | 80 | 96 | 45 | 74 | 0 |
| 26 | 88 | 74 | 81 | 94 | 46 | 73 | .01 |
| 27 | 85 | 73 | 79 | 90 | 50 | 79 | T |
| 28 | 89 | 71 | 80 | 96 | 42 | 74 | 0 |
| 29 | 90 | 72 | 81 | 94 | 43 | 72 | 0 |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Sum | 2555 | 2082 | | 2739 | 1365 | | 1.73 |
| Mean | 88.1 | 71.8 | 80.0 | 94.4 | 47.1 | 75.5 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1959 | 0 | 1964 | .46 |
| 1960 | .88 | 1965 | .08 |
| 1961 | .75 | 1966 | .T |
| 1962 | .05 | 1967 | T |
| 1963 | 3.82 | 1968 | 1.73 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.876
Departure from normal + 0.022
Highest 30.00 Date 26
Lowest 29.75 Date 11

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.0
Departure from normal - 0.5
Highest 92 Date 1
Lowest 68 Date 2

### RAINFALL
(Inches)

Total 1.73
Departure from normal +1.08
Greatest in 24 hours 1.07
Date 3

### WIND

Average hourly velocity 7.4 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the N on the 10

### SUNSHINE

Average number hours per day 89
Percentage of possible 75

### NUMBER OF DAYS

Clear 8
Partly Cloudy 16
Cloudy 5
.01 inch of rain or more 5
Thunderstorms 1
Light fog 1
Dense fog 1

Number of hours with rain 12

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C.Z. **Month:** March 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 72 | 80 | 95 | 42 | 73 | |
| 2 | 90 | 71 | 80 | 94 | 38 | 72 | |
| 3 | 87 | 70 | 78 | 94 | 48 | 74 | T |
| 4 | 91 | 70 | 80 | 94 | 34 | 70 | T |
| 5 | 90 | 70 | 80 | 90 | 38 | 68 | |
| 6 | 92 | 71 | 82 | 94 | 35 | 67 | |
| 7 | 89 | 71 | 80 | 93 | 40 | 69 | |
| 8 | 90 | 72 | 81 | 93 | 40 | 69 | |
| 9 | 90 | 70 | 80 | 94 | 35 | 70 | |
| 10 | 89 | 70 | 80 | 92 | 45 | 71 | |
| 11 | 88 | 71 | 80 | 94 | 47 | 75 | T |
| 12 | 88 | 71 | 80 | 95 | 48 | 84 | .43 |
| 13 | 91 | 72 | 82 | 95 | 36 | 68 | |
| 14 | 92 | 74 | 83 | 87 | 39 | 68 | |
| 15 | 91 | 72 | 82 | 92 | 38 | 69 | |
| 16 | 90 | 73 | 82 | 92 | 42 | 70 | T |
| 17 | 92 | 73 | 82 | 92 | 36 | 69 | |
| 18 | 91 | 72 | 82 | 92 | 37 | 68 | |
| 19 | 88 | 73 | 80 | 90 | 43 | 70 | |
| 20 | 90 | 73 | 82 | 92 | 40 | 70 | |
| 21 | 89 | 75 | 82 | 90 | 47 | 72 | .05 |
| 22 | 87 | 76 | 82 | 96 | 57 | 85 | .21 |
| 23 | 88 | 75 | 82 | 96 | 50 | 76 | .09 |
| 24 | 90 | 77 | 84 | 85 | 40 | 65 | |
| 25 | 91 | 71 | 81 | 93 | 38 | 66 | |
| 26 | 86 | 75 | 80 | 86 | 58 | 76 | T |
| 27 | 91 | 74 | 82 | 94 | 46 | 72 | |
| 28 | 91 | 77 | 84 | 84 | 46 | 70 | |
| 29 | 89 | 75 | 82 | 92 | 47 | 70 | |
| 30 | 92 | 75 | 84 | 89 | 40 | 68 | |
| 31 | 92 | 76 | 84 | 88 | 44 | 72 | |
| Sum | 2784 | 2257 | | 2847 | 1314 | | .78 |
| Mean | 89.8 | 72.8 | 81.3 | 91.8 | 42.4 | 71.2 | |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.881
Departure from normal + 0.037
Highest 30.02 Date 3rd
Lowest 29.73 Date 25th

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.3
Departure from normal - 0.3
Highest 92 Date 6th & 30th
Lowest 70 Date 3rd

### RAINFALL
(Inches)

Total 78
Departure from normal + 0.17
Greatest in 24 hours .43
Date 12th

### WIND

Average hourly velocity 8.5 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the N on the 14th

### SUNSHINE

Average number hours per day 7.1
Percentage of possible 58

### NUMBER OF DAYS

Clear 0
Partly Cloudy 23
Cloudy 8
.01 inch of rain or more 4
Thunderstorms 0
Light fog 0
Dense fog 0
Number of hours with rain 7

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1959 | T | 1964 | T |
| 1960 | .56 | 1965 | 0 |
| 1961 | .20 | 1966 | .10 |
| 1962 | .17 | 1967 | 1.72 |
| 1963 | .12 | 1968 | .78 |

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C.Z. **Month:** April 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 77 | 82 | 94 | 56 | 80 | 0 |
| 2 | 90 | 76 | 83 | 96 | 48 | 75 | 0 |
| 3 | 92 | 75 | 84 | 94 | 47 | 75 | 0 |
| 4 | 92 | 75 | 84 | 94 | 45 | 74 | 0 |
| 5 | 90 | 75 | 82 | 94 | 50 | 75 | 0 |
| 6 | 91 | 76 | 84 | 94 | 48 | 74 | T |
| 7 | 92 | 75 | 84 | 95 | 47 | 75 | 0 |
| 8 | 88 | 75 | 82 | 95 | 54 | 85 | .37 |
| 9 | 88 | 75 | 82 | 95 | 56 | 81 | .11 |
| 10 | 87 | 74 | 80 | 94 | 56 | 78 | 0 |
| 11 | 92 | 71 | 82 | 94 | 36 | 80 | .05 |
| 12 | 85 | 72 | 78 | 94 | 46 | 78 | .01 |
| 13 | 91 | 70 | 80 | 94 | 30 | 67 | 0 |
| 14 | 92 | 69 | 80 | 94 | 27 | 64 | 0 |
| 15 | 88 | 69 | 78 | 93 | 41 | 71 | 0 |
| 16 | 91 | 69 | 80 | 96 | 40 | 71 | 0 |
| 17 | 89 | 70 | 80 | 95 | 45 | 72 | 0 |
| 18 | 86 | 71 | 78 | 92 | 46 | 71 | 0 |
| 19 | 91 | 69 | 80 | 95 | 32 | 67 | 0 |
| 20 | 92 | 68 | 80 | 94 | 31 | 62 | 0 |
| 21 | 90 | 70 | 80 | 93 | 42 | 70 | T |
| 22 | 92 | 72 | 82 | 93 | 40 | 70 | 0 |
| 23 | 90 | 71 | 80 | 96 | 38 | 70 | 0 |
| 24 | 92 | 70 | 81 | 95 | 35 | 68 | 0 |
| 25 | 93 | 72 | 82 | 90 | 40 | 66 | 0 |
| 26 | 85 | 74 | 80 | 88 | 52 | 70 | 0 |
| 27 | 91 | 73 | 82 | 94 | 43 | 69 | 0 |
| 28 | 93 | 74 | 84 | 90 | 42 | 72 | T |
| 29 | 90 | 75 | 82 | 90 | 51 | 76 | .03 |
| 30 | 92 | 75 | 84 | 96 | 44 | 73 | 0 |
| 31 | | | | | | | |
| Sum | 2703 | 2177 | | 2811 | 1308 | | .57 |
| Mean | 90.1 | 72.6 | 81.4 | 93.7 | 43.6 | 72.6 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1959 | 1.46 | 1964 | 6.54 |
| 1960 | 6.83 | 1965 | .26 |
| 1961 | 2.09 | 1966 | 3.19 |
| 1962 | .43 | 1967 | 5.96 |
| 1963 | 6.04 | 1968 | .57 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.874
Departure from normal + 0.043
Highest 30.00 Date 14+
Lowest 29.73 Date 3

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 81.4
Departure from normal - 0.8
Highest 93 Date 28
Lowest 68 Date 20

**RAINFALL**
**(Inches)**

Total .57
Departure from normal - 2.16
Greatest in 24 hours .37
Date 8

**WIND**

Average hourly velocity 6.5 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the N on the 2+

**SUNSHINE**

Average number hours per day 7.1
Percentage of possible 57

**NUMBER OF DAYS**

Clear 7
Partly Cloudy 9
Cloudy 14
.01 inch of rain or more 5
Thunderstorms 1
Light fog 0
Dense fog 0
Number of hours with rain 6

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C.Z. **Month:** May, 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 75 | 81 | 93 | 58 | 81.2 | .02 |
| 2 | 89 | 75 | 82 | 94 | 57 | 87.3 | .24 |
| 3 | 89 | 74 | 82 | 94 | 49 | 76.9 | 0 |
| 4 | 90 | 76 | 83 | 92 | 53 | 83.8 | .09 |
| 5 | 90 | 75 | 82 | 94 | 59 | 86.4 | .21 |
| 6 | 86 | 75 | 80 | 96 | 64 | 86.7 | .80 |
| 7 | 83 | 72 | 78 | 96 | 69 | 89.2 | .67 |
| 8 | 88 | 73 | 80 | 97 | 48 | 85.2 | .67 |
| 9 | 86 | 72 | 79 | 95 | 56 | 88.5 | 1.02 |
| 10 | 83 | 71 | 77 | 95 | 68 | 84.9 | T |
| 11 | 86 | 74 | 80 | 94 | 58 | 81.8 | T |
| 12 | 88 | 74 | 81 | 93 | 56 | 82.3 | 0 |
| 13 | 88 | 74 | 81 | 94 | 57 | 84.0 | .37 |
| 14 | 84 | 74 | 79 | 95 | 61 | 84.5 | .04 |
| 15 | 85 | 75 | 80 | 94 | 60 | 81.5 | T |
| 16 | 88 | 73 | 80 | 96 | 56 | 84.8 | .02 |
| 17 | 87 | 74 | 80 | 96 | 57 | 84.4 | 0 |
| 18 | 86 | 75 | 80 | 98 | 61 | 83.6 | .01 |
| 19 | 86 | 76 | 81 | 98 | 65 | 85.9 | .41 |
| 20 | 90 | 74 | 82 | 97 | 51 | 82.7 | T |
| 21 | 86 | 74 | 80 | 98 | 66 | 85.4 | .10 |
| 22 | 86 | 76 | 81 | 98 | 60 | 83.8 | 0 |
| 23 | 90 | 74 | 82 | 97 | 54 | 82.3 | 0 |
| 24 | 90 | 75 | 82 | 97 | 55 | 84.0 | 0 |
| 25 | 84 | 77 | 80 | 98 | 72 | 92.1 | .35 |
| 26 | 83 | 75 | 79 | 98 | 79 | 94.3 | .42 |
| 27 | 86 | 74 | 80 | 98 | 60 | 84.6 | .35 |
| 28 | 87 | 74 | 80 | 98 | 65 | 84.5 | 0 |
| 29 | 88 | 75 | 82 | 97 | 62 | 86.1 | .03 |
| 30 | 80 | 76 | 78 | 100 | 88 | 89.9 | .88 |
| 31 | 85 | 74 | 78 | 99 | 69 | 86.1 | .14 |
| Sum | 2684 | 2305 | | 2979 | 1893 | | 6.84 |
| Mean | 86.6 | 74.4 | 80.5 | 96.1 | 611 | 85.1 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1959 | 9.23 | 1964 | 6.72 |
| 1960 | 7.28 | 1965 | 13.14 |
| 1961 | 5.02 | 1966 | 13.40 |
| 1962 | 5.54 | 1967 | 5.22 |
| 1963 | 5.00 | 1968 | 6.84 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.853
Departure from normal +0.027
Highest 29.95 Date 19
Lowest 29.74 Date 5

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.5
Departure from normal -0.4
Highest 90 Date 24
Lowest 71 Date 10

### RAINFALL
(Inches)

Total 6.84
Departure from normal -1.16
Greatest in 24 hours 1.45
Date 6 + 7

### WIND

Average hourly velocity 4.4 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the N on the 5

### SUNSHINE

Average number hours per day 6.1
Percentage of possible 49

### NUMBER OF DAYS

Clear 1
Partly Cloudy 15
Cloudy 15
0.1 inch or more 19
Thunderstorms 16
Light fog 0
Dense fog 0

Number of hours with rain 75

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C.Z. **Month:** June 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 82 | 75 | 78 | 98 | 75 | 85 | .91 |
| 2 | 85 | 72 | 78 | 98 | 64 | 85 | |
| 3 | 84 | 77 | 80 | 98 | 69 | 89 | .17 |
| 4 | 84 | 74 | 79 | 99 | 71 | 87 | .22 |
| 5 | 84 | 73 | 78 | 98 | 70 | 91 | .07 |
| 6 | 82 | 72 | 77 | 98 | 71 | 89 | .56 |
| 7 | 84 | 72 | 78 | 98 | 67 | 88 | .01 |
| 8 | 86 | 73 | 80 | 96 | 57 | 83 | .19 |
| 9 | 87 | 74 | 80 | 96 | 64 | 87 | .50 |
| 10 | 85 | 74 | 80 | 96 | 59 | 87 | .10 |
| 11 | 82 | 75 | 78 | 97 | 71 | 90 | .09 |
| 12 | 84 | 73 | 78 | 97 | 64 | 86 | T |
| 13 | 84 | 75 | 80 | 96 | 61 | 83 | |
| 14 | 86 | 74 | 80 | 97 | 62 | 89 | .04 |
| 15 | 82 | 74 | 78 | 97 | 75 | 91 | .14 |
| 16 | 88 | 74 | 82 | 96 | 67 | 85 | |
| 17 | 78 | 74 | 76 | 98 | 84 | 85 | .91 |
| 18 | 83 | 72 | 78 | 97 | 74 | 90 | .31 |
| 19 | 86 | 74 | 80 | 96 | 62 | 90 | .22 |
| 20 | 87 | 75 | 81 | 96 | 61 | 85 | |
| 21 | 88 | 76 | 82 | 96 | 60 | 86 | .16 |
| 22 | 77 | 73 | 75 | 99 | 69 | 94 | .54 |
| 23 | 84 | 71 | 78 | 97 | 64 | 85 | |
| 24 | 88 | 73 | 80 | 97 | 60 | 88 | 1.57 |
| 25 | 91 | 75 | 83 | 97 | 60 | 91 | .89 |
| 26 | 83 | 74 | 78 | 96 | 66 | 88 | |
| 27 | 83 | 74 | 78 | 96 | 66 | 88 | |
| 28 | 88 | 74 | 81 | 97 | 58 | 88 | .03 |
| 29 | 86 | 75 | 80 | 97 | 59 | 85 | .09 |
| 30 | 84 | 73 | 78 | 95 | 69 | 89 | .02 |
| 31 | | | | | | | |
| Sum | 2535 | 2215 | | 2909 | 1979 | | 7.74 |
| Mean | 84.5 | 73.8 | 79.2 | 97.0 | 66.0 | 88.0 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1959 | 4.57 | 1964 | 6.0 |
| 1960 | 5.36 | 1965 | 4.9 |
| 1961 | 10.72 | 1966 | 13.90 |
| 1962 | 10.20 | 1967 | 6.53 |
| 1963 | 7.35 | 1968 | 7.74 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.871
Departure from normal +0.041
Highest 29.97 Date 6
Lowest 29.75 Date 21

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.2
Departure from normal -0.9
Highest 91 Date 25
Lowest 71 Date 23

### RAINFALL
(Inches)

Total 7.73
Departure from normal -0.34
Greatest in 24 hours 2.34
Date 24-25

### WIND

Average hourly velocity 3.7 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the NW on the 24

### SUNSHINE

Average number hours per day 5.9
Percentage of possible 47

### NUMBER OF DAYS

Clear 0
Partly Cloudy 6
Cloudy 24
.01 inch of rain or more 22
Thunderstorms 12
Light fog 0
Dense fog 0
Number of hours with rain 91

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa, Canal Zone **Month:** July, 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 74 | 80 | 96 | 56 | 84 | .03 |
| 2 | 81 | 75 | 78 | 98 | 75 | 93 | .49 |
| 3 | 85 | 73 | 79 | 96 | 58 | 84 | .03 |
| 4 | 87 | 73 | 80 | 96 | 60 | 85 | T |
| 5 | 84 | 74 | 79 | 96 | 68 | 87 | 0 |
| 6 | 88 | 75 | 82 | 96 | 57 | 84 | .56 |
| 7 | 78 | 74 | 81 | 98 | 79 | 94 | .32 |
| 8 | 87 | 74 | 80 | 96 | 59 | 86 | .07 |
| 9 | 88 | 75 | 82 | 96 | 56 | 84 | 0 |
| 10 | 90 | 73 | 82 | 95 | 47 | 84 | 1.25 |
| 11 | 85 | 71 | 78 | 97 | 60 | 84 | .95 |
| 12 | 89 | 73 | 81 | 94 | 57 | 84 | .07 |
| 13 | 91 | 75 | 83 | 94 | 47 | 83 | 1.04 |
| 14 | 85 | 76 | 80 | 94 | 63 | 82 | 0 |
| 15 | 86 | 75 | 80 | 96 | 61 | 89 | 1.19 |
| 16 | 89 | 75 | 82 | 98 | 57 | 90 | .95 |
| 17 | 82 | 74 | 78 | 96 | 71 | 88 | .09 |
| 18 | 84 | 74 | 79 | 98 | 63 | 92 | .95 |
| 19 | 82 | 74 | 78 | 98 | 71 | 88 | .08 |
| 20 | 85 | 74 | 80 | 98 | 65 | 88 | .11 |
| 21 | 86 | 75 | 80 | 98 | 61 | 88 | .43 |
| 22 | 87 | 74 | 80 | 98 | 56 | 90 | .25 |
| 23 | 85 | 74 | 80 | 98 | 64 | 93 | .10 |
| 24 | 87 | 74 | 80 | 98 | 64 | 90 | .24 |
| 25 | 88 | 74 | 81 | 98 | 64 | 89 | .10 |
| 26 | 89 | 76 | 82 | 98 | 61 | 88 | 0 |
| 27 | 88 | 76 | 82 | 97 | 67 | 90 | .02 |
| 28 | 90 | 76 | 83 | 97 | 59 | 85 | 0 |
| 29 | 90 | 76 | 83 | 98 | 59 | 84 | 0 |
| 30 | 90 | 77 | 84 | 98 | 58 | 90 | .92 |
| 31 | 89 | 76 | 82 | 99 | 62 | 94 | .18 |
| Sum | 2681 | 2309 | | 3003 | 1905 | | 10.42 |
| Mean | 86.5 | 74.5 | 80.5 | 96.9 | 61.5 | 87.5 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1959 | 5.59 | 1964 | 5.38 |
| 1960 | 5.61 | 1965 | 3.64 |
| 1961 | 8.40 | 1966 | 11.39 |
| 1962 | 5.69 | 1967 | 8.11 |
| 1963 | 8.38 | 1968 | 10.42 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.844
Departure from normal + .013
Highest 29.94 Date 11 & 12
Lowest 29.70 Date 26

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.5
Departure from normal +0.1
Highest 91 Date 13
Lowest 71 Date 11

### RAINFALL
(Inches)

Total 10.42
Departure from normal +2.97
Greatest in 24 hours 2.10
Date 10-11

### WIND

Average hourly velocity 5.5 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the NW on the 10

### SUNSHINE

Average number hours per day 6.4
Percentage of possible 51

### NUMBER OF DAYS

Clear 0
Partly Cloudy 4
Cloudy 27
.01 inch of rain or more 24
Thunderstorms 12
Light fog 0
Dense fog 0

Number of hours with rain 75

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C.Z. **Month:** August 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 80 | 98 | 63 | 90 | .20 |
| 2 | 76 | 72 | 74 | 98 | 82 | 95 | 2.86 |
| 3 | 84 | 72 | 78 | 98 | 70 | 91 | .27 |
| 4 | 86 | 75 | 80 | 97 | 62 | 85 | 0 |
| 5 | 85 | 71 | 78 | 98 | 67 | 90 | .14 |
| 6 | 87 | 75 | 81 | 98 | 62 | 90 | .79 |
| 7 | 85 | 74 | 80 | 98 | 62 | 87 | 0 |
| 8 | 87 | 73 | 80 | 99 | 62 | 91 | .04 |
| 9 | 91 | 76 | 84 | 98 | 54 | 83 | 0 |
| 10 | 88 | 76 | 82 | 98 | 63 | 87 | T |
| 11 | 88 | 75 | 82 | 98 | 60 | 89 | .34 |
| 12 | 88 | 73 | 80 | 98 | 66 | 91 | .01 |
| 13 | 89 | 76 | 82 | 97 | 57 | 90 | .04 |
| 14 | 91 | 75 | 83 | 96 | 48 | 86 | .07 |
| 15 | 86 | 74 | 80 | 99 | 68 | 89 | 0 |
| 16 | 88 | 74 | 81 | 99 | 62 | 91 | .29 |
| 17 | 86 | 76 | 81 | 99 | 67 | 94 | 1.18 |
| 18 | 84 | 75 | 80 | 99 | 68 | 91 | 0 |
| 19 | 88 | 75 | 82 | 99 | 58 | 89 | .13 |
| 20 | 85 | 75 | 80 | 98 | 60 | 91 | .01 |
| 21 | 89 | 73 | 81 | 98 | 60 | 85 | 0 |
| 22 | 89 | 76 | 82 | 98 | 59 | 85 | 0 |
| 23 | 89 | 76 | 82 | 99 | 55 | 89 | .37 |
| 24 | 87 | 76 | 82 | 98 | 48 | 85 | .05 |
| 25 | 81 | 76 | 78 | 98 | 78 | 92 | .28 |
| 26 | 87 | 72 | 80 | 98 | 53 | 85 | 0 |
| 27 | 84 | 74 | 79 | 98 | 64 | 91 | .60 |
| 28 | 83 | 73 | 78 | 98 | 60 | 90 | .36 |
| 29 | 90 | 73 | 82 | 98 | 52 | 80 | 0 |
| 30 | 85 | 74 | 80 | 99 | 62 | 89 | .01 |
| 31 | 80 | 72 | 76 | 98 | 74 | 91 | 0 |
| Sum | 2672 | 2302 | | 3042 | 1926 | | 8.04 |
| Mean | 86.2 | 74.3 | 80.2 | 98.1 | 62.1 | 88.7 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1959 | 7.62 | 1964 | 9.60 |
| 1960 | 11.74 | 1965 | 7.74 |
| 1961 | 5.92 | 1966 | 3.54 |
| 1962 | 6.43 | 1967 | 12.14 |
| 1963 | 6.86 | 1968 | 8.04 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.860
Departure from normal +0.028
Highest 29.96 Date 5
Lowest 29.77 Date 22

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.2
Departure from normal 0
Highest 91 Date 14
Lowest 71 Date 6

### RAINFALL
(Inches)

Total 8.04
Departure from normal +0.24
Greatest in 24 hours 2.86
Date 2

### WIND

Average hourly velocity 5.1 mph.
Prevailing direction NW
Maximum for five minutes 20
mph. from the NW on the 4

### SUNSHINE

Average number hours per day 6.7
Percentage of possible 54

### NUMBER OF DAYS

Clear 0
Partly Cloudy 6
Cloudy 25
.01 inch of rain or more 20
Thunderstorms 16
Light fog 0
Dense fog 0

Number of hours with rain 68

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** SEPTEMBER 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 73 | 79 | 98 | 66 | 89 | .04 |
| 2 | 84 | 72 | 78 | 98 | 66 | 88 | .04 |
| 3 | 85 | 75 | 80 | 97 | 62 | 88 | .02 |
| 4 | 87 | 75 | 81 | 97 | 60 | 85 | |
| 5 | 85 | 74 | 80 | 97 | 64 | 86 | .02 |
| 6 | 85 | 74 | 80 | 97 | 64 | 85 | |
| 7 | 85 | 74 | 80 | 94 | 59 | 87 | |
| 8 | 87 | 75 | 81 | 98 | 66 | 85 | T |
| 9 | 83 | 74 | 78 | 98 | 67 | 90 | T |
| 10 | 86 | 75 | 80 | 98 | 62 | 90 | .17 |
| 11 | 87 | 74 | 80 | 98 | 62 | 88 | .01 |
| 12 | 86 | 75 | 80 | 98 | 63 | 92 | .49 |
| 13 | 88 | 75 | 82 | 98 | 62 | 87 | |
| 14 | 82 | 75 | 78 | 97 | 72 | 94 | .26 |
| 15 | 84 | 72 | 78 | 99 | 67 | 91 | .15 |
| 16 | 87 | 73 | 80 | 98 | 64 | 85 | |
| 17 | 87 | 75 | 81 | 98 | 61 | 86 | .14 |
| 18 | 85 | 76 | 80 | 99 | 62 | 87 | T |
| 19 | 86 | 74 | 80 | 98 | 62 | 86 | |
| 20 | 88 | 74 | 81 | 97 | 60 | 87 | 2.29 |
| 21 | 88 | 74 | 81 | 97 | 62 | 90 | .56 |
| 22 | 82 | 75 | 78 | 97 | 68 | 92 | .43 |
| 23 | 86 | 76 | 81 | 98 | 62 | 84 | .01 |
| 24 | 87 | 74 | 80 | 98 | 64 | 87 | |
| 25 | 90 | 75 | 82 | 98 | 60 | 83 | |
| 26 | 88 | 77 | 82 | 97 | 55 | 84 | |
| 27 | 83 | 76 | 80 | 97 | 70 | 89 | .04 |
| 28 | 85 | 74 | 80 | 97 | 62 | 87 | T |
| 29 | 84 | 74 | 79 | 98 | 64 | 90 | |
| 30 | 86 | 73 | 80 | 98 | 63 | 90 | T |
| 31 | -- | -- | -- | -- | -- | -- | ---- |
| Sum | 2571 | 2232 | | 2927 | 1901 | | 4.67 |
| Mean | 85.7 | 74.4 | 80.0 | 97.6 | 63.4 | 87.7 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1959 | 5.79 | 1964 | 6.91 |
| 1960 | 6.03 | 1965 | 9.10 |
| 1961 | 7.19 | 1966 | 10.97 |
| 1962 | 5.39 | 1967 | 12.99 |
| 1963 | 5.17 | 1968 | 4.67 |

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### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean: 29.841
Departure from normal: + 0.015
Highest: 29.93 Date: 15 +
Lowest: 29.71 Date: 25

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean: 80.0
Departure from normal: + 0.2
Highest: 90 Date: 25
Lowest: 72 Date: 2

### RAINFALL
(Inches)

Total: 4.67
Departure from normal: - 3.19
Greatest in 24 hours: 2.85
Date: 20 - 21

### WIND

Average hourly velocity: 3.9 mph.
Prevailing direction: NW
Maximum for five minutes: 19
mph. from the: S on the: 17

### SUNSHINE

Average number hours per day: 4.6
Percentage of possible: 37

### NUMBER OF DAYS

Clear: 0
Partly Cloudy: 8
Cloudy: 22
.01 inch of rain or more: 15
Thunderstorms: 15
Light fog: 0
Dense fog: 0

Number of hours with rain: 38

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C.Z. **Month:** OCTOBER, 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 80 | 98 | 61 | 89 | 0 |
| 2 | 88 | 73 | 80 | 99 | 58 | 86 | 0 |
| 3 | 84 | 74 | 79 | 99 | 70 | 92 | .03 |
| 4 | 89 | 74 | 82 | 99 | 56 | 88 | .05 |
| 5 | 88 | 76 | 82 | 99 | 61 | 90 | .27 |
| 6 | 86 | 75 | 80 | 98 | 67 | 88 | 0 |
| 7 | 87 | 75 | 81 | 98 | 62 | 88 | 0 |
| 8 | 87 | 74 | 80 | 98 | 62 | 91 | .08 |
| 9 | 83 | 74 | 78 | 98 | 73 | 94 | 2.37 |
| 10 | 83 | 70 | 76 | 98 | 69 | 90 | .01 |
| 11 | 85 | 72 | 78 | 97 | 63 | 86 | .03 |
| 12 | 86 | 74 | 80 | 97 | 56 | 84 | .01 |
| 13 | 84 | 73 | 78 | 97 | 70 | 87 | .54 |
| 14 | 87 | 76 | 82 | 98 | 58 | 78 | .11 |
| 15 | 86 | 76 | 81 | 98 | 62 | 85 | .04 |
| 16 | 85 | 74 | 80 | 99 | 68 | 87 | .03 |
| 17 | 85 | 72 | 78 | 98 | 66 | 92 | 1.87 |
| 18 | 86 | 73 | 80 | 98 | 60 | 90 | 0 |
| 19 | 89 | 74 | 82 | 98 | 54 | 85 | .01 |
| 20 | 85 | 74 | 80 | 98 | 62 | 91 | .03 |
| 21 | 82 | 74 | 78 | 99 | 68 | 92 | .10 |
| 22 | 86 | 75 | 80 | 99 | 63 | 87 | .02 |
| 23 | 88 | 74 | 81 | 98 | 58 | 85 | 0 |
| 24 | 90 | 75 | 82 | 98 | 54 | 87 | 1.10 |
| 25 | 85 | 74 | 80 | 98 | 60 | 91 | .64 |
| 26 | 86 | 72 | 79 | 98 | 58 | 89 | .01 |
| 27 | 88 | 73 | 80 | 98 | 60 | 92 | 2.37 |
| 28 | 85 | 73 | 79 | 99 | 62 | 91 | T |
| 29 | 86 | 73 | 80 | 98 | 60 | 91 | .02 |
| 30 | 87 | 72 | 80 | 98 | 54 | 88 | .02 |
| 31 | 91 | 75 | 83 | 98 | 52 | 87 | 0 |
| Sum | 2673 | 2288 | | 3043 | 1907 | | 9.76 |
| Mean | 86.2 | 73.8 | 80.0 | 98.2 | 61.5 | 88.4 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1959 | 18.50 | 1964 | 10.55 |
| 1960 | 5.74 | 1965 | 12.09 |
| 1961 | 10.58 | 1966 | 23.21 |
| 1962 | 13.45 | 1967 | 7.45 |
| 1963 | 7.65 | 1968 | 9.76 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.836
Departure from normal +.009
Highest 29.97 Date 26
Lowest 29.73 Date 16+

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.0
Departure from normal +0.8
Highest 91 Date 31
Lowest 70 Date 10

**RAINFALL**
**(Inches)**

Total 9.76
Departure from normal -1.00
Greatest in 24 hours 2.44
Date 8 & 9

**WIND**

Average hourly velocity 4.5 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the S on the 20

**SUNSHINE**

Average number hours per day 2.7
Percentage of possible 23

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 5
Cloudy 26
.01 inch of rain or more 23
Thunderstorms 12
Fog 1
Dense fog 0
Number of hours with rain 73

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PANAMA CANAL COMPANY
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METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** NOVEMBER 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 75 | 82 | 98 | 54 | 89 | 0 |
| 2 | 89 | 74 | 82 | 98 | 52 | 84 | 0 |
| 3 | 89 | 76 | 82 | 97 | 54 | 84 | 0 |
| 4 | 88 | 76 | 82 | 97 | 57 | 88 | .07 |
| 5 | 85 | 75 | 80 | 98 | 65 | 90 | T |
| 6 | 86 | 75 | 80 | 98 | 62 | 89 | .02 |
| 7 | 91 | 75 | 83 | 98 | 52 | 82 | 0 |
| 8 | 81 | 75 | 78 | 99 | 72 | 95 | .07 |
| 9 | 86 | 74 | 80 | 99 | 61 | 84 | .06 |
| 10 | 86 | 75 | 80 | 98 | 62 | 86 | 0 |
| 11 | 86 | 75 | 80 | 97 | 59 | 87 | .10 |
| 12 | 87 | 74 | 80 | 98 | 54 | 88 | .46 |
| 13 | 86 | 75 | 80 | 98 | 60 | 90 | .05 |
| 14 | 86 | 74 | 80 | 98 | 56 | 92 | .39 |
| 15 | 87 | 73 | 80 | 98 | 61 | 87 | .02 |
| 16 | 88 | 74 | 81 | 98 | 52 | 90 | .39 |
| 17 | 88 | 74 | 81 | 98 | 70 | 91 | .88 |
| 18 | 87 | 73 | 80 | 98 | 56 | 86 | .46 |
| 19 | 88 | 73 | 80 | 98 | 58 | 89 | .89 |
| 20 | 91 | 73 | 82 | 97 | 52 | 86 | 1.74 |
| 21 | 89 | 74 | 82 | 98 | 52 | 89 | .13 |
| 22 | 87 | 73 | 80 | 98 | 58 | 87 | .14 |
| 23 | 86 | 73 | 80 | 98 | 60 | 91 | .58 |
| 24 | 81 | 74 | 78 | 98 | 72 | 93 | 1.10 |
| 25 | 80 | 73 | 76 | 98 | 78 | 94 | .29 |
| 26 | 83 | 72 | 78 | 97 | 70 | 93 | .07 |
| 27 | 86 | 72 | 79 | 97 | 57 | 88 | T |
| 28 | 89 | 73 | 81 | 98 | 50 | 83 | T |
| 29 | 90 | 74 | 82 | 98 | 54 | 84 | 0 |
| 30 | 88 | 73 | 80 | 98 | 56 | 85 | T |
| 31 | -- | -- | -- | -- | -- | -- | ---- |
| Sum | 2602 | 2219 | | 2936 | 1776 | | 7.91 |
| Mean | 86.7 | 74.0 | 80.4 | 97.9 | 59.2 | 88.1 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1959 | 8.00 | 1964 | 12.01 |
| 1960 | 11.14 | 1965 | 17.16 |
| 1961 | 8.49 | 1966 | 9.18 |
| 1962 | 13.39 | 1967 | 11.87 |
| 1963 | 10.49 | 1968 | 7.91 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.841
Departure from normal + 0.020
Highest 29.97 Date 24
Lowest 29.72 Date 7

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 80.4
Departure from normal + 1.2
Highest 91 Date 20
Lowest 72 Date 26+

**RAINFALL**
(Inches)

Total 7.91
Departure from normal -2.44
Greatest in 24 hours 1.06
Date 19-20

**WIND**

Average hourly velocity 4.1 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the NW on the 22

**SUNSHINE**

Average number hours per day 5.2
Percentage of possible 45

**NUMBER OF DAYS**

Clear 2
Partly Cloudy 10
Cloudy 18
.01 inch of rain or more 20
Thunderstorms 7
Light fog 7
Dense fog
Number of hours with rain 63

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** DECEMBER 1968

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 84 | 75 | 80 | 99 | 64 | 90 | T |
| 2 | 87 | 73 | 80 | 99 | 58 | 87 | .67 |
| 3 | 89 | 73 | 81 | 98 | 54 | 87 | .47 |
| 4 | 85 | 73 | 79 | 98 | 54 | 86 | .10 |
| 5 | 87 | 72 | 80 | 97 | 54 | 82 | .03 |
| 6 | 88 | 70 | 79 | 98 | 49 | 81 | T |
| 7 | 89 | 74 | 82 | 98 | 52 | 81 | |
| 8 | 91 | 74 | 82 | 98 | 54 | 88 | .10 |
| 9 | 89 | 74 | 82 | 99 | 55 | 87 | .02 |
| 10 | 90 | 76 | 83 | 98 | 53 | 84 | T |
| 11 | 86 | 74 | 80 | 99 | 60 | 90 | .16 |
| 12 | 92 | 73 | 82 | 99 | 43 | 80 | .01 |
| 13 | 89 | 73 | 81 | 98 | 53 | 86 | T |
| 14 | 91 | 75 | 83 | 98 | 52 | 85 | .09 |
| 15 | 91 | 75 | 83 | 99 | 48 | 85 | .01 |
| 16 | 90 | 74 | 82 | 99 | 52 | 80 | |
| 17 | 91 | 74 | 82 | 99 | 50 | 80 | .02 |
| 18 | 91 | 74 | 82 | 99 | 47 | 77 | |
| 19 | 91 | 75 | 83 | 95 | 46 | 78 | |
| 20 | 91 | 75 | 83 | 95 | 47 | 77 | |
| 21 | 88 | 75 | 82 | 96 | 53 | 83 | .82 |
| 22 | 87 | 73 | 80 | 97 | 54 | 83 | .17 |
| 23 | 89 | 73 | 81 | 96 | 44 | 77 | |
| 24 | 90 | 73 | 82 | 98 | 37 | 72 | T |
| 25 | 88 | 71 | 80 | 94 | 45 | 77 | .07 |
| 26 | 90 | 71 | 80 | 95 | 38 | 72 | |
| 27 | 89 | 72 | 80 | 94 | 48 | 75 | T |
| 28 | 89 | 74 | 82 | 94 | 50 | 76 | |
| 29 | 89 | 73 | 81 | 94 | 48 | 79 | .18 |
| 30 | 92 | 72 | 82 | 94 | 42 | 74 | |
| 31 | 90 | 73 | 82 | 97 | 49 | 76 | |
| Sum | 2763 | 2276 | | 3011 | 1553 | | 2.92 |
| Mean | 89.1 | 73.4 | 81.2 | 97.1 | 50.1 | 81.1 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1959 | 8.46 | 1964 | 3.12 |
| 1960 | 8.46 | 1965 | 4.07 |
| 1961 | 4.74 | 1966 | 5.07 |
| 1962 | 8.21 | 1967 | 8.67 |
| 1963 | .80 | 1968 | 2.92 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.839
Departure from normal + 0.016
Highest 29.97 Date 24
Lowest 29.70 Date 31

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.2
Departure from normal + 1.3
Highest 92 Date 12
Lowest 70 Date 6

### RAINFALL
(Inches)

Total 2.92
Departure from normal -2.07
Greatest in 24 hours .87
Date 2 & 3

### WIND

Average hourly velocity 5.5 mph.
Prevailing direction NW
Maximum for five minutes 18
mph. from the NW on the 8

### SUNSHINE

Average number hours per day 7.6
Percentage of possible 66

### NUMBER OF DAYS

Clear 3
Partly Cloudy 19
Cloudy 9
.01 inch of rain or more 15
Thunderstorms 3
Light fog 2
Dense fog 2

Number of hours with rain 22

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JANUARY 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 73 | 82 | 99 | 46 | 77 | |
| 2 | 91 | 72 | 82 | 99 | 42 | 80 | |
| 3 | 90 | 73 | 82 | 99 | 49 | 86 | 1.87 |
| 4 | 89 | 73 | 81 | 98 | 49 | 80 | |
| 5 | 90 | 73 | 82 | 97 | 46 | 77 | |
| 6 | 92 | 75 | 84 | 96 | 39 | 72 | |
| 7 | 89 | 76 | 82 | 94 | 42 | 72 | |
| 8 | 90 | 73 | 82 | 97 | 43 | 73 | |
| 9 | 90 | 72 | 81 | 97 | 45 | 73 | |
| 10 | 90 | 74 | 82 | 96 | 42 | 72 | |
| 11 | 90 | 75 | 82 | 94 | 40 | 72 | |
| 12 | 90 | 74 | 82 | 94 | 41 | 72 | |
| 13 | 87 | 74 | 80 | 96 | 50 | 78 | |
| 14 | 89 | 75 | 82 | 94 | 48 | 76 | |
| 15 | 92 | 75 | 84 | 96 | 42 | 76 | T |
| 16 | 90 | 75 | 82 | 98 | 55 | 80 | |
| 17 | 89 | 72 | 80 | 99 | 49 | 79 | .02 |
| 18 | 89 | 72 | 80 | 96 | 54 | 83 | |
| 19 | 86 | 75 | 80 | 96 | 61 | 84 | T |
| 20 | 89 | 73 | 81 | 96 | 50 | 79 | |
| 21 | 88 | 74 | 81 | 95 | 52 | 87 | .24 |
| 22 | 89 | 72 | 80 | 96 | 50 | 85 | .83 |
| 23 | 89 | 73 | 81 | 94 | 52 | 81 | |
| 24 | 87 | 71 | 79 | 94 | 50 | 75 | |
| 25 | 91 | 72 | 82 | 94 | 40 | 71 | |
| 26 | 90 | 73 | 82 | 92 | 44 | 71 | |
| 27 | 90 | 71 | 80 | 93 | 43 | 73 | T |
| 28 | 90 | 72 | 81 | 93 | 46 | 72 | |
| 29 | 92 | 73 | 82 | 94 | 45 | 75 | |
| 30 | 90 | 74 | 82 | 95 | 53 | 76 | T |
| 31 | 90 | 72 | 81 | 94 | 38 | 67 | |
| Sum | 2778 | 2271 | | 2965 | 1446 | | 2.96 |
| Mean | 89.6 | 73.3 | 81.4 | 95.6 | 46.6 | 76.6 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1960 | 4.47 | 1965 | 1.35 |
| 1961 | .66 | 1966 | 2.42 |
| 1962 | .60 | 1967 | .19 |
| 1963 | 1.94 | 1968 | T |
| 1964 | T | 1969 | 2.96 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.806
Departure from normal -0.036
Highest 29.93 Date 19 +
Lowest 29.67 Date 9

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 81.4
Departure from normal + 1.3
Highest 92 Date 29
Lowest 71 Date 24

**RAINFALL**
**(Inches)**

Total 2.96
Departure from normal + 1.81
Greatest in 24 hours 1.87
Date 3

**WIND**

Average hourly velocity 7.5 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the NW on the 7

**SUNSHINE**

Average number hours per day 9.0
Percentage of possible 77

**NUMBER OF DAYS**

Clear 10
Partly Cloudy 14
Cloudy 7
.01 inch of rain or more 4
Thunderstorms 4
Light fog 1
Dense fog 0

Number of hours with rain 9

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PANAMA CANAL COMPANY
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METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

Station: BALBOA HEIGHTS, CANAL ZONE Month: FEBRUARY 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 90 | 69 | 80 | 91 | 42 | 70 | |
| 2 | 90 | 72 | 81 | 94 | 45 | 73 | |
| 3 | 87 | 73 | 80 | 94 | 60 | 79 | |
| 4 | 87 | 76 | 82 | 98 | 64 | 88 | .22 |
| 5 | 91 | 75 | 83 | 98 | 44 | 71 | |
| 6 | 90 | 70 | 80 | 98 | 40 | 72 | T |
| 7 | 90 | 72 | 81 | 98 | 45 | 75 | |
| 8 | 90 | 72 | 81 | 97 | 40 | 71 | |
| 9 | 89 | 73 | 81 | 94 | 52 | 76 | T |
| 10 | 90 | 72 | 81 | 95 | 46 | 71 | T |
| 11 | 91 | 70 | 80 | 95 | 40 | 72 | |
| 12 | 92 | 72 | 82 | 94 | 42 | 70 | |
| 13 | 90 | 70 | 80 | 94 | 42 | 68 | |
| 14 | 91 | 73 | 82 | 94 | 46 | 72 | |
| 15 | 90 | 73 | 82 | 95 | 50 | 83 | 1.42 |
| 16 | 89 | 71 | 80 | 94 | 48 | 75 | |
| 17 | 88 | 72 | 80 | 95 | 50 | 75 | |
| 18 | 90 | 73 | 82 | 94 | 38 | 67 | |
| 19 | 89 | 70 | 80 | 95 | 43 | 69 | |
| 20 | 91 | 72 | 82 | 94 | 40 | 68 | |
| 21 | 91 | 71 | 81 | 96 | 48 | 73 | |
| 22 | 90 | 73 | 82 | 95 | 53 | 79 | .03 |
| 23 | 93 | 73 | 83 | 99 | 54 | 73 | |
| 24 | 91 | 75 | 83 | 93 | 45 | 72 | |
| 25 | 90 | 73 | 82 | 87 | 46 | 70 | |
| 26 | 91 | 74 | 82 | 94 | 42 | 68 | |
| 27 | 92 | 72 | 82 | 93 | 38 | 65 | |
| 28 | 87 | 73 | 80 | 91 | 64 | 81 | .03 |
| 29 | -- | -- | -- | -- | -- | -- | ---- |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Sum | 2520 | 2024 | | 2649 | 1307 | | 1.70 |
| Mean | 90.0 | 72.3 | 81.2 | 94.6 | 46.7 | 73.1 | |

## TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1960 | .88 | 1965 | .08 |
| 1961 | .75 | 1966 | T |
| 1962 | .05 | 1967 | T |
| 1963 | 3.82 | 1968 | 1.73 |
| 1964 | .46 | 1969 | 1.70 |

## AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.819
Departure from normal - 0.034
Highest 29.95 Date 7
Lowest 29.70 Date 16+

## AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.2
Departure from normal + 0.6
Highest 93 Date 23
Lowest 69 Date 1

## RAINFALL
(Inches)

Total 1.70
Departure from normal + 1.03
Greatest in 24 hours 1.42
Date 15

## WIND

Average hourly velocity 8.2 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the NW on the 25

## SUNSHINE

Average number hours per day 9.4
Percentage of possible 79

## NUMBER OF DAYS

Clear 6
Partly Cloudy 17
Cloudy 5
.01 inch of rain or more 4
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 7

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** MARCH 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 75 | 84 | 94 | 46 | 73 | |
| 2 | 89 | 75 | 82 | 96 | 48 | 76 | |
| 3 | 91 | 72 | 82 | 98 | 46 | 74 | |
| 4 | 93 | 73 | 83 | 95 | 48 | 72 | T |
| 5 | 91 | 76 | 84 | 92 | 49 | 73 | T |
| 6 | 90 | 77 | 84 | 92 | 55 | 80 | .02 |
| 7 | 94 | 76 | 85 | 94 | 46 | 75 | |
| 8 | 91 | 75 | 83 | 94 | 52 | 79 | .05 |
| 9 | 90 | 76 | 83 | 94 | 56 | 81 | |
| 10 | 93 | 75 | 84 | 94 | 40 | 72 | |
| 11 | 92 | 74 | 83 | 91 | 40 | 66 | |
| 12 | 91 | 74 | 82 | 90 | 40 | 66 | |
| 13 | 92 | 73 | 82 | 95 | 43 | 67 | |
| 14 | 94 | 74 | 84 | 94 | 36 | 66 | |
| 15 | 94 | 74 | 84 | 93 | 41 | 69 | |
| 16 | 92 | 74 | 83 | 95 | 45 | 73 | |
| 17 | 94 | 75 | 84 | 96 | 43 | 70 | |
| 18 | 95 | 74 | 84 | 92 | 36 | 65 | |
| 19 | 93 | 74 | 84 | 94 | 44 | 68 | |
| 20 | 93 | 76 | 84 | 95 | 46 | 70 | |
| 21 | 94 | 76 | 85 | 94 | 44 | 70 | |
| 22 | 94 | 76 | 85 | 89 | 40 | 66 | |
| 23 | 92 | 76 | 84 | 90 | 44 | 70 | |
| 24 | 92 | 76 | 84 | 91 | 50 | 78 | .14 |
| 25 | 93 | 76 | 84 | 92 | 47 | 71 | |
| 26 | 95 | 75 | 85 | 89 | 35 | 64 | |
| 27 | 88 | 76 | 82 | 93 | 46 | 70 | .16 |
| 28 | 94 | 75 | 84 | 88 | 44 | 68 | |
| 29 | 92 | 76 | 84 | 95 | 50 | 73 | |
| 30 | 94 | 76 | 85 | 94 | 43 | 69 | |
| 31 | 93 | 76 | 84 | 97 | 46 | 71 | |
| Sum | 2865 | 2326 | | 2890 | 1389 | | .37 |
| Mean | 92.4 | 75.0 | 83.7 | 93.2 | 44.8 | 71.1 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1960 | .56 | 1965 | 0 |
| 1961 | .20 | 1966 | .10 |
| 1962 | .17 | 1967 | 1.72 |
| 1963 | .12 | 1968 | .78 |
| 1964 | T | 1969 | .37 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.827
Departure from normal - 0.017
Highest 29.98 Date 13
Lowest 29.68 Date 3

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 83.7
Departure from normal + 2.0
Highest 95 Date 18
Lowest 72 Date 3

**RAINFALL**
(Inches)

Total .37
Departure from normal - .24
Greatest in 24 hours .16
Date 27

**WIND**

Average hourly velocity 8.0 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the NW on the 16 +

**SUNSHINE**

Average number hours per day 9.4
Percentage of possible 78

**NUMBER OF DAYS**

Clear 8
Partly Cloudy 16
Cloudy 7
.01 inch of rain or more 4
Thunderstorms 1
Light fog 0
Dense fog 0

Number of hours with rain 10

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146 Gal | 72 m
p 187 m

# PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

Band 1915-17
76 55-apr 126
Pam Bay

# MONTHLY METEOROLOGICAL SUMMARY
75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** APRIL 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 94 | 72 | 83 | 98 | 42 | 71 | 0 |
| 2 | 95 | 76 | 86 | 96 | 42 | 70 | 0 |
| 3 | 94 | 77 | 86 | 93 | 42 | 69 | 0 |
| 4 | 94 | 74 | 84 | 98 | 43 | 74 | 0 |
| 5 | 93 | 76 | 84 | 96 | 48 | 73 | T |
| 6 | 92 | 76 | 84 | 96 | 50 | 74 | 0 |
| 7 | 93 | 74 | 84 | 96 | 47 | 71 | 0 |
| 8 | 92 | 75 | 84 | 95 | 46 | 68 | 0 |
| 9 | 93 | 74 | 84 | 93 | 40 | 71 | 0 |
| 10 | 92 | 74 | 83 | 100 | 51 | 81 | .51 |
| 11 | 90 | 76 | 83 | 99 | 55 | 81 | .99 |
| 12 | 93 | 74 | 84 | 99 | 49 | 77 | 0 |
| 13 | 88 | 75 | 82 | 97 | 54 | 79 | T |
| 14 | 91 | 74 | 82 | 97 | 52 | 79 | .02 |
| 15 | 91 | 73 | 82 | 99 | 49 | 76 | 0 |
| 16 | 90 | 75 | 82 | 98 | 53 | 87 | 1.14 |
| 17 | 87 | 75 | 81 | 98 | 62 | 86 | T |
| 18 | 88 | 74 | 81 | 98 | 58 | 88 | .04 |
| 19 | 89 | 75 | 82 | 98 | 58 | 84 | T |
| 20 | 89 | 76 | 82 | 96 | 57 | 89 | 2.03 |
| 21 | 90 | 76 | 83 | 96 | 58 | 84 | .05 |
| 22 | 86 | 78 | 82 | 97 | 66 | 88 | T |
| 23 | 87 | 75 | 81 | 98 | 63 | 88 | .64 |
| 24 | 87 | 75 | 81 | 98 | 55 | 85 | T |
| 25 | 86 | 75 | 80 | 98 | 64 | 86 | T |
| 26 | 90 | 75 | 82 | 98 | 56 | 85 | .02 |
| 27 | 93 | 76 | 84 | 97 | 47 | 74 | 0 |
| 28 | 92 | 78 | 85 | 95 | 50 | 73 | 0 |
| 29 | 93 | 75 | 84 | 96 | 50 | 75 | 0 |
| 30 | 90 | 78 | 84 | 98 | 54 | 87 | 1.32 |
| 31 | -- | -- | -- | -- | -- | -- | ---- |
| Sum | 2722 | 2256 | | 2911 | 1561 | | 6.76 |
| Mean | 90.7 | 75.2 | 83.0 | 97.0 | 52.0 | 79.0 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1960 | 6.83 | 1965 | .26 |
| 1961 | 2.09 | 1966 | 3.19 |
| 1962 | .43 | 1967 | 5.96 |
| 1963 | 6.04 | 1968 | .57 |
| 1964 | 6.54 | 1969 | 6.76 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.819
Departure from normal - 0.012
Highest 29.95 Date 9
Lowest 29.66 Date 29

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 83.0
Departure from normal + 0.8
Highest 95 Date 2
Lowest 72 Date 1

**RAINFALL**
**(Inches)**

Total 6.76
Departure from normal + 3.97
Greatest in 24 hours 2.03
Date 20

**WIND**

Average hourly velocity 6.5 mph.
Prevailing direction NW
Maximum for five minutes 22
mph. from the NW on the 4

**SUNSHINE**

Average number hours per day 8.5
Percentage of possible 69

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 13
Cloudy 17
.01 inch of rain or more 10
Thunderstorms 8
Light fog 0
Dense fog
Number of hours with rain 20

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** MAY 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 77 | 84 | 98 | 57 | 86 | .13 |
| 2 | 91 | 76 | 84 | 96 | 53 | 84 | .61 |
| 3 | 91 | 76 | 84 | 95 | 48 | 77 | 0 |
| 4 | 89 | 74 | 82 | 94 | 46 | 77 | 0 |
| 5 | 88 | 76 | 82 | 94 | 59 | 80 | 0 |
| 6 | 93 | 78 | 86 | 94 | 56 | 83 | .11 |
| 7 | 95 | 77 | 86 | 96 | 46 | 75 | 0 |
| 8 | 94 | 78 | 86 | 94 | 50 | 73 | 0 |
| 9 | 92 | 72 | 82 | 96 | 48 | 84 | 3.23 |
| 10 | 84 | 72 | 78 | 96 | 56 | 87 | .07 |
| 11 | 91 | 72 | 82 | 95 | 51 | 83 | .23 |
| 12 | 88 | 76 | 82 | 96 | 65 | 83 | 0 |
| 13 | 88 | 78 | 83 | 96 | 64 | 84 | T |
| 14 | 82 | 76 | 79 | 96 | 78 | 90 | .09 |
| 15 | 87 | 76 | 82 | 95 | 64 | 82 | .33 |
| 16 | 88 | 76 | 82 | 95 | 59 | 83 | .01 |
| 17 | 90 | 74 | 82 | 95 | 51 | 80 | 0 |
| 18 | 87 | 76 | 82 | 95 | 62 | 84 | 0 |
| 19 | 90 | 77 | 84 | 95 | 62 | 88 | 1.12 |
| 20 | 89 | 76 | 82 | 95 | 64 | 85 | 0 |
| 21 | 88 | 76 | 82 | 95 | 64 | 89 | .14 |
| 22 | 90 | 75 | 82 | 94 | 60 | 87 | .38 |
| 23 | 88 | 76 | 82 | 94 | 62 | 88 | .15 |
| 24 | 91 | 76 | 84 | 94 | 59 | 81 | 0 |
| 25 | 90 | 77 | 84 | 94 | 58 | 85 | 0 |
| 26 | 91 | 77 | 84 | 96 | 56 | 83 | .15 |
| 27 | 84 | 74 | 79 | 96 | 68 | 86 | .05 |
| 28 | 92 | 75 | 84 | 94 | 49 | 85 | .01 |
| 29 | 88 | 76 | 82 | 94 | 62 | 85 | 0 |
| 30 | 84 | 77 | 80 | 95 | 63 | 88 | .83 |
| 31 | 87 | 74 | 80 | 94 | 58 | 81 | 0 |
| Sum | 2761 | 2346 | | 2946 | 1798 | | 7.64 |
| Mean | 89.1 | 75.7 | 82.4 | 95.0 | 58.0 | 83.4 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1960 | 7.28 | 1965 | 13.14 |
| 1961 | 5.02 | 1966 | 13.40 |
| 1962 | 5.54 | 1967 | 5.22 |
| 1963 | 5.00 | 1968 | 6.84 |
| 1964 | 6.72 | 1969 | 7.64 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.802
Departure from normal - 0.024
Highest 29.92 Date 10
Lowest 29.66 Date 20

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.4
Departure from normal + 1.4
Highest 95 Date 7
Lowest 72 Date 10

### RAINFALL
(Inches)

Total 7.64
Departure from normal - .35
Greatest in 24 hours 3.23
Date 9

### WIND

Average hourly velocity 5.2 mph.
Prevailing direction NW
Maximum for five minutes 18
mph. from the NW on the 8

### SUNSHINE

Average number hours per day 6.9
Percentage of possible 55

### NUMBER OF DAYS

Clear 0
Partly Cloudy 10
Cloudy 21
.01 inch of rain or more 17
Thunderstorms 14
Light fog 0
Dense fog 0

Number of hours with rain 50

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU

METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** JUNE 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 82 | 78 | 80 | 94 | 74 | 88 | .27 |
| 2 | 87 | 76 | 82 | 94 | 65 | 87 | 1.63 |
| 3 | 86 | 75 | 80 | 95 | 64 | 85 | 0 |
| 4 | 82 | 77 | 80 | 94 | 77 | 88 | .97 |
| 5 | 85 | 76 | 80 | 94 | 70 | 87 | T |
| 6 | 90 | 76 | 83 | 94 | 60 | 80 | 0 |
| 7 | 86 | 78 | 82 | 93 | 66 | 84 | .06 |
| 8 | 85 | 78 | 82 | 96 | 72 | 88 | .14 |
| 9 | 83 | 76 | 80 | 96 | 72 | 89 | .50 |
| 10 | 87 | 76 | 82 | 93 | 67 | 83 | .02 |
| 11 | 85 | 76 | 80 | 93 | 70 | 88 | .09 |
| 12 | 86 | 75 | 80 | 92 | 64 | 83 | .01 |
| 13 | 88 | 76 | 82 | 92 | 68 | 82 | 0 |
| 14 | 88 | 77 | 82 | 94 | 64 | 81 | .05 |
| 15 | 88 | 75 | 82 | 94 | 60 | 84 | 0 |
| 16 | 87 | 76 | 82 | 96 | 64 | 86 | .06 |
| 17 | 87 | 77 | 82 | 96 | 64 | 85 | .41 |
| 18 | 89 | 74 | 82 | 93 | 57 | 83 | 0 |
| 19 | 83 | 76 | 80 | 93 | 78 | 90 | .10 |
| 20 | 86 | 74 | 80 | 95 | 60 | 85 | .01 |
| 21 | 89 | 76 | 82 | 93 | 62 | 82 | 0 |
| 22 | 90 | 77 | 84 | 92 | 57 | 84 | 0 |
| 23 | 89 | 76 | 82 | 94 | 56 | 81 | 0 |
| 24 | 90 | 77 | 84 | 93 | 56 | 81 | .02 |
| 25 | 89 | 74 | 82 | 96 | 60 | 88 | .57 |
| 26 | 86 | 73 | 80 | 96 | 68 | 91 | .89 |
| 27 | 81 | 76 | 78 | 97 | 80 | 91 | .08 |
| 28 | 83 | 76 | 80 | 96 | 70 | 88 | 0 |
| 29 | 85 | 75 | 80 | 94 | 66 | 89 | .14 |
| 30 | 89 | 75 | 82 | 96 | 64 | 87 | .04 |
| 31 | -- | -- | -- | -- | -- | -- | -- |
| Sum | 2591 | 2277 | | 2828 | 1975 | | 6.06 |
| Mean | 86.4 | 75.9 | 81.2 | 94.3 | 65.8 | 85.5 | |

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**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1960 | 5.36 | 1965 | 4.91 |
| 1961 | 10.72 | 1966 | 13.90 |
| 1962 | 10.20 | 1967 | 6.53 |
| 1963 | 7.35 | 1968 | 7.74 |
| 1964 | 6.07 | 1969 | 6.06 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.813
Departure from normal - .017
Highest 29.91 Date 9+
Lowest 29.68 Date 14

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 81.2
Departure from normal + 1.1
Highest 90 Date 24
Lowest 73 Date 26

**RAINFALL**
**(Inches)**

Total 6.06
Departure from normal - 1.98
Greatest in 24 hours 1.77
Date 1 & 2

**WIND**

Average hourly velocity 4.3 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the S on the 4

**SUNSHINE**

Average number hours per day 4.7
Percentage of possible 37

**NUMBER OF DAYS**

Clear 1
Partly Cloudy 7
Cloudy 22
.01 inch of rain or more 20
Thunderstorms 11
Light fog 0
Dense fog 0

Number of hours with rain 65

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** JULY 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 76 | 81 | 96 | 68 | 89 | |
| 2 | 82 | 77 | 80 | 96 | 80 | 93 | .01 |
| 3 | 90 | 74 | 82 | 96 | 57 | 86 | |
| 4 | 90 | 76 | 83 | 96 | 62 | 88 | .02 |
| 5 | 90 | 75 | 82 | 98 | 59 | 84 | T |
| 6 | 88 | 76 | 82 | 95 | 62 | 81 | .04 |
| 7 | 85 | 74 | 80 | 95 | 63 | 87 | .41 |
| 8 | 92 | 72 | 82 | 94 | 60 | 80 | T |
| 9 | 85 | 76 | 80 | 94 | 58 | 89 | 1.68 |
| 10 | 90 | 76 | 83 | 95 | 56 | 86 | T |
| 11 | 83 | 76 | 80 | 96 | 75 | 92 | .29 |
| 12 | 88 | 73 | 80 | 95 | 60 | 85 | |
| 13 | 91 | 78 | 84 | 95 | 54 | 84 | |
| 14 | 88 | 76 | 82 | 94 | 64 | 83 | T |
| 15 | 88 | 76 | 82 | 96 | 63 | 88 | .07 |
| 16 | 91 | 75 | 83 | 96 | 58 | 85 | .01 |
| 17 | 89 | 75 | 82 | 95 | 62 | 83 | T |
| 18 | 90 | 76 | 83 | 94 | 62 | 82 | T |
| 19 | 91 | 76 | 84 | 94 | 60 | 82 | |
| 20 | 92 | 77 | 84 | 93 | 58 | 78 | |
| 21 | 92 | 78 | 85 | 93 | 60 | 84 | |
| 22 | 87 | 76 | 82 | 95 | 70 | 86 | .07 |
| 23 | 91 | 77 | 84 | 93 | 62 | 88 | .02 |
| 24 | 87 | 75 | 81 | 94 | 63 | 90 | .89 |
| 25 | 88 | 75 | 82 | 94 | 61 | 84 | T |
| 26 | 89 | 76 | 82 | 95 | 59 | 84 | .82 |
| 27 | 89 | 76 | 82 | 95 | 62 | 85 | |
| 28 | 85 | 73 | 79 | 93 | 61 | 91 | .27 |
| 29 | 91 | 73 | 82 | 97 | 60 | 85 | .11 |
| 30 | 85 | 73 | 79 | 95 | 68 | 87 | .07 |
| 31 | 84 | 74 | 79 | 96 | 66 | 88 | .03 |
| Sum | 2737 | 2336 | | 2943 | 1933 | | 4.81 |
| Mean | 88.3 | 75.4 | 81.8 | 94.9 | 62.4 | 85.7 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1960 | 5.61 | 1965 | 3.64 |
| 1961 | 8.40 | 1966 | 11.39 |
| 1962 | 5.69 | 1967 | 8.11 |
| 1963 | 8.38 | 1968 | 10.42 |
| 1964 | 5.38 | 1969 | 4.81 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.819
Departure from normal - .012
Highest 29.95 Date 7
Lowest 29.69 Date 18

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 81.8
Departure from normal + 1.4
Highest 92 Date 21
Lowest 72 Date 8

**RAINFALL**
**(Inches)**

Total 4.81
Departure from normal -2.60
Greatest in 24 hours 1.68
Date 9

**WIND**

Average hourly velocity 6.0 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the NW on the 20

**SUNSHINE**

Average number hours per day 3.9
Percentage of possible 31

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 3
Cloudy 28
.01 inch rain or more 16
Thunderstorms 18
Light fog 0
Dense fog 0
Number of hours with rain 37

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C.Z. **Month:** August, 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 74 | 80 | 95 | 67 | 90 | .54 |
| 2 | 89 | 73 | 81 | 94 | 60 | 86 | .35 |
| 3 | 88 | 77 | 82 | 96 | 68 | 90 | .51 |
| 4 | 84 | 74 | 79 | 96 | 67 | 89 | .46 |
| 5 | 87 | 75 | 81 | 94 | 70 | 85 | 0 |
| 6 | 92 | 74 | 83 | 92 | 54 | 83 | .40 |
| 7 | 86 | 71 | 78 | 99 | 70 | 86 | 2.12 |
| 8 | 80 | 75 | 78 | 95 | 76 | 87 | 1.45 |
| 9 | 84 | 73 | 78 | 94 | 70 | 87 | 1.50 |
| 10 | 87 | 74 | 80 | 96 | 56 | 87 | .03 |
| 11 | 90 | 74 | 82 | 95 | 55 | 86 | .19 |
| 12 | 84 | 75 | 80 | 95 | 72 | 90 | .39 |
| 13 | 83 | 74 | 78 | 94 | 74 | 88 | 0 |
| 14 | 85 | 74 | 80 | 95 | 68 | 86 | .89 |
| 15 | 84 | 75 | 80 | 92 | 59 | 84 | .01 |
| 16 | 82 | 75 | 78 | 95 | 75 | 88 | .10 |
| 17 | 81 | 74 | 78 | 94 | 80 | 88 | .64 |
| 18 | 85 | 76 | 80 | 94 | 69 | 85 | .03 |
| 19 | 84 | 74 | 79 | 94 | 68 | 84 | 0 |
| 20 | 85 | 75 | 80 | 94 | 69 | 88 | .13 |
| 21 | 88 | 74 | 81 | 94 | 60 | 83 | 0 |
| 22 | 86 | 74 | 80 | 93 | 64 | 86 | .06 |
| 23 | 88 | 74 | 81 | 93 | 57 | 83 | .10 |
| 24 | 83 | 75 | 79 | 93 | 64 | 81 | 1.01 |
| 25 | 84 | 74 | 79 | 93 | 59 | 87 | T |
| 26 | 84 | 70 | 77 | 94 | 66 | 87 | .47 |
| 27 | 86 | 72 | 79 | 93 | 65 | 83 | 0 |
| 28 | 89 | 74 | 82 | 90 | 62 | 81 | 0 |
| 29 | 86 | 75 | 80 | 92 | 69 | 87 | .08 |
| 30 | 86 | 75 | 80 | 95 | 64 | 89 | .20 |
| 31 | 87 | 74 | 80 | 96 | 66 | 86 | 0 |
| Sum | 2652 | 2297 | | 2919 | 2043 | | 11.66 |
| Mean | 85.5 | 74.1 | 79.8 | 94.2 | 65.9 | 86.1 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1960 | 11.74 | 1965 | 7.74 |
| 1961 | 5.92 | 1966 | 3.54 |
| 1962 | 6.43 | 1967 | 12.14 |
| 1963 | 6.86 | 1968 | 8.04 |
| 1964 | 9.60 | 1969 | 11.66 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.831
Departure from normal - .001
Highest 29.93 Date 15
Lowest 29.72 Date 29

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.8
Departure from normal - 0.4
Highest 92 Date 6
Lowest 70 Date 26

**RAINFALL**
**(Inches)**

Total 11.66
Departure from normal + 3.81
Greatest in 24 hours 2.27
Date 6 & 7

**WIND**

Average hourly velocity 4.3 mph.
Prevailing direction NW
Maximum for five minutes 19
mph. from the S on the 8

**SUNSHINE**

Average number hours per day 5.0
Percentage of possible 40

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 3
Cloudy 28
.01 inch of rain or more 23
Thunderstorms
Light fog 0
Dense fog 0
Number of hours with rain 71

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** SEPTEMBER 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 76 | 80 | 91 | 72 | 86 | T |
| 2 | 86 | 76 | 81 | 92 | 69 | 84 | T |
| 3 | 88 | 75 | 82 | 92 | 64 | 82 | .02 |
| 4 | 89 | 75 | 82 | 91 | 63 | 84 | 0 |
| 5 | 91 | 77 | 84 | 92 | 60 | 82 | 0 |
| 6 | 91 | 74 | 82 | 94 | 62 | 86 | .21 |
| 7 | 83 | 75 | 79 | 94 | 73 | 88 | .05 |
| 8 | 84 | 74 | 79 | 93 | 70 | 84 | 0 |
| 9 | 90 | 75 | 82 | 94 | 62 | 86 | T |
| 10 | 88 | 78 | 83 | 92 | 58 | 84 | .09 |
| 11 | 86 | 76 | 81 | 94 | 69 | 87 | .03 |
| 12 | 89 | 77 | 83 | 90 | 65 | 81 | .01 |
| 13 | 88 | 77 | 82 | 91 | 70 | 87 | .65 |
| 14 | 90 | 76 | 83 | 91 | 62 | 85 | T |
| 15 | 89 | 74 | 82 | 91 | 62 | 85 | .07 |
| 16 | 84 | 74 | 79 | 93 | 70 | 88 | .30 |
| 17 | 84 | 74 | 79 | 93 | 68 | 88 | .56 |
| 18 | 84 | 73 | 78 | 95 | 66 | 84 | .39 |
| 19 | 80 | 74 | 77 | 93 | 81 | 89 | .96 |
| 20 | 79 | 72 | 76 | 94 | 82 | 89 | 1.41 |
| 21 | 85 | 75 | 80 | 89 | 67 | 77 | T |
| 22 | 87 | 77 | 82 | 90 | 61 | 76 | 0 |
| 23 | 88 | 76 | 82 | 93 | 64 | 81 | .02 |
| 24 | 91 | 74 | 82 | 94 | 52 | 86 | .46 |
| 25 | 86 | 74 | 80 | 95 | 62 | 88 | .29 |
| 26 | 85 | 72 | 78 | 94 | 61 | 83 | T |
| 27 | 86 | 73 | 80 | 94 | 60 | 85 | .06 |
| 28 | 85 | 73 | 79 | 93 | 63 | 85 | .08 |
| 29 | 82 | 73 | 78 | 96 | 78 | 90 | .37 |
| 30 | 84 | 74 | 79 | 98 | 74 | 90 | .87 |
| 31 | -- | -- | -- | -- | -- | -- | ---- |
| Sum | 2587 | 2243 | | 2786 | 1990 | | 6.90 |
| Mean | 86.2 | 74.8 | 80.5 | 92.9 | 66.3 | 85.0 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 19 60 | 6.03 | 19 65 | 9.10 |
| 19 61 | 7.19 | 19 66 | 10.97 |
| 19 62 | 5.39 | 19 67 | 12.99 |
| 19 63 | 5.17 | 19 68 | 4.67 |
| 19 64 | 6.91 | 19 69 | 6.90 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.802
Departure from normal -.024
Highest 29.90 Date 23
Lowest 29.67 Date 5

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 80.5
Departure from normal + 0.7
Highest 91 Date 5+
Lowest 72 Date 26

### RAINFALL
(Inches)

Total 6.90
Departure from normal - .94
Greatest in 24 hours 1.85
Date 19 & 20

### WIND

Average hourly velocity 5.1 mph.
Prevailing direction NW
Maximum for five minutes 27
mph. from the S on the 30

### SUNSHINE

Average number hours per day 4.6
Percentage of possible 38

### NUMBER OF DAYS

Clear 0
Partly Cloudy 6
Cloudy 24
.01 inch of rain or more 20
Thunderstorms 9
Light fog 0
Dense fog 0

Number of hours with rain 80

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** NOVEMBER, 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 77 | 82 | 96 | 63 | 82 | |
| 2 | 85 | 75 | 80 | 98 | 64 | 91 | .35 |
| 3 | 91 | 74 | 82 | 98 | 54 | 89 | .49 |
| 4 | 90 | 76 | 83 | 97 | 58 | 90 | .60 |
| 5 | 85 | 75 | 80 | 98 | 65 | 86 | |
| 6 | 85 | 74 | 80 | 97 | 66 | 91 | 1.05 |
| 7 | 80 | 74 | 77 | 97 | 74 | 91 | .07 |
| 8 | 83 | 73 | 78 | 96 | 68 | 91 | .57 |
| 9 | 84 | 72 | 78 | 96 | 65 | 88 | T |
| 10 | 88 | 72 | 80 | 95 | 55 | 82 | T |
| 11 | 88 | 74 | 81 | 97 | 50 | 77 | .01 |
| 12 | 88 | 74 | 81 | 97 | 58 | 86 | .10 |
| 13 | 85 | 74 | 80 | 96 | 71 | 92 | .94 |
| 14 | 88 | 73 | 80 | 95 | 59 | 83 | |
| 15 | 85 | 74 | 80 | 96 | 69 | 90 | 1.01 |
| 16 | 87 | 72 | 80 | 95 | 62 | 86 | .02 |
| 17 | 84 | 74 | 79 | 95 | 66 | 90 | .45 |
| 18 | 85 | 72 | 78 | 95 | 64 | 89 | 1.08 |
| 19 | 85 | 72 | 78 | 96 | 62 | 91 | 4.36 |
| 20 | 84 | 73 | 78 | 96 | 55 | 87 | .36 |
| 21 | 81 | 71 | 76 | 95 | 69 | 88 | .33 |
| 22 | 84 | 74 | 79 | 96 | 65 | 88 | .12 |
| 23 | 84 | 74 | 79 | 98 | 64 | 87 | .04 |
| 24 | 86 | 74 | 80 | 99 | 66 | 87 | .10 |
| 25 | 88 | 75 | 82 | 95 | 57 | 81 | |
| 26 | 85 | 75 | 80 | 96 | 66 | 89 | .07 |
| 27 | 86 | 73 | 80 | 98 | 64 | 87 | .13 |
| 28 | 92 | 74 | 83 | 97 | 48 | 79 | |
| 29 | 89 | 75 | 82 | 93 | 57 | 84 | T |
| 30 | 86 | 74 | 80 | 95 | 68 | 88 | T |
| 31 | | | | | | | |
| Sum | 2577 | 2213 | | 2888 | 1872 | | 12.25 |
| Mean | 85.9 | 73.8 | 79.8 | 96.3 | 62.4 | 87.0 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1960 | 11.14 | 1965 | 17.16 |
| 1961 | 8.49 | 1966 | 9.18 |
| 1962 | 13.39 | 1967 | 11.87 |
| 1963 | 10.49 | 1968 | 7.91 |
| 1964 | 12.01 | 1969 | 12.25 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.816
Departure from normal -.005
Highest 29.93 Date 27
Lowest 29.67 Date 18

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 79.8
Departure from normal + 0.6
Highest 92 Date 28
Lowest 71 Date 21

**RAINFALL**
(Inches)

Total 12.25
Departure from normal + 1.88
Greatest in 24 hours 4.76
Date 18 & 19

**WIND**

Average hourly velocity 5.0 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the S on the 21

**SUNSHINE**

Average number hours per day 4.9
Percentage of possible 42

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 5
Cloudy 25
.01 inch of rain or more 21
Thunderstorms 14
Light fog 0
Dense fog 0

Number of hours with rain 86

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** DECEMBER, 1969

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 87 | 74 | 80 | 95 | 56 | 89 | 1.00 |
| 2 | 87 | 74 | 80 | 95 | 60 | 88 | 1.02 |
| 3 | 88 | 73 | 80 | 97 | 56 | 84 | 0 |
| 4 | 85 | 73 | 79 | 96 | 67 | 87 | .01 |
| 5 | 80 | 71 | 76 | 96 | 78 | 92 | .17 |
| 6 | 87 | 72 | 80 | 96 | 55 | 83 | 0 |
| 7 | 89 | 73 | 81 | 96 | 58 | 86 | T |
| 8 | 90 | 74 | 82 | 96 | 54 | 86 | .03 |
| 9 | 89 | 75 | 82 | 97 | 56 | 88 | .80 |
| 10 | 87 | 74 | 80 | 97 | 61 | 88 | 0 |
| 11 | 88 | 74 | 81 | 96 | 60 | 84 | .01 |
| 12 | 88 | 73 | 80 | 96 | 48 | 80 | T |
| 13 | 90 | 72 | 81 | 96 | 44 | 74 | 0 |
| 14 | 86 | 71 | 78 | 96 | 54 | 77 | .05 |
| 15 | 88 | 73 | 80 | 95 | 59 | 86 | .13 |
| 16 | 88 | 76 | 82 | 95 | 63 | 84 | .12 |
| 17 | 85 | 75 | 80 | 93 | 68 | 84 | .04 |
| 18 | 87 | 75 | 81 | 95 | 60 | 87 | 1.19 |
| 19 | 89 | 73 | 81 | 95 | 55 | 82 | 0 |
| 20 | 86 | 74 | 80 | 94 | 63 | 85 | .02 |
| 21 | 84 | 74 | 79 | 94 | 66 | 85 | .01 |
| 22 | 84 | 74 | 79 | 94 | 65 | 85 | 0 |
| 23 | 88 | 74 | 81 | 95 | 60 | 83 | 0 |
| 24 | 88 | 75 | 82 | 94 | 57 | 83 | 0 |
| 25 | 89 | 76 | 82 | 96 | 59 | 83 | .01 |
| 26 | 85 | 76 | 80 | 95 | 65 | 86 | .03 |
| 27 | 89 | 73 | 81 | 94 | 54 | 82 | .14 |
| 28 | 90 | 73 | 82 | 94 | 48 | 80 | T |
| 29 | 90 | 74 | 82 | 94 | 47 | 76 | 0 |
| 30 | 91 | 73 | 82 | 96 | 49 | 77 | T |
| 31 | 90 | 72 | 81 | 94 | 52 | 82 | .10 |
| Sum | 2712 | 2283 | | 2952 | 1797 | | 4.88 |
| Mean | 87.5 | 73.6 | 80.1 | 95.2 | 58.0 | 83.8 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1960 | 8.46 | 1965 | 4.07 |
| 1961 | 4.74 | 1966 | 5.07 |
| 1962 | 8.21 | 1967 | 8.67 |
| 1963 | .80 | 1968 | 2.92 |
| 1964 | 3.12 | 1969 | 4.88 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.821
Departure from normal -.002
Highest 29.93 Date 2
Lowest 29.71 Date 29

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 80.6
Departure from normal +0.7
Highest 91 Date 30
Lowest 71 Date 5+

**RAINFALL**
(Inches)

Total 4.88
Departure from normal -.11
Greatest in one day 1.91
Date 1 & 2

**WIND**

Average hourly velocity 6.4 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the N on the 12

**SUNSHINE**

Average number hours per day 4.6
Percentage of possible 39

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 20
Cloudy 11
.01 inch of rain or more 18
Thunderstorms 4
Light fog 1
Dense fog 0

Number of hours with rain 42

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C.Z. **Month:** JAN 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 88 | 73 | 80 | 95 | 55 | 82 | 0 |
| 2 | 89 | 73 | 81 | 94 | 51 | 80 | .03 |
| 3 | 89 | 74 | 82 | 96 | 55 | 80 | 0 |
| 4 | 91 | 75 | 83 | 94 | 48 | 76 | 0 |
| 5 | 90 | 74 | 82 | 94 | 50 | 76 | 0 |
| 6 | 91 | 76 | 84 | 94 | 49 | 75 | 0 |
| 7 | 90 | 75 | 82 | 94 | 45 | 73 | 0 |
| 8 | 91 | 77 | 84 | 90 | 50 | 74 | 0 |
| 9 | 89 | 76 | 82 | 95 | 60 | 81 | 0 |
| 10 | 78 | 72 | 75 | 98 | 84 | 94 | 1.41 |
| 11 | 80 | 73 | 76 | 98 | 76 | 91 | .19 |
| 12 | 84 | 73 | 78 | 94 | 64 | 83 | .04 |
| 13 | 83 | 73 | 78 | 94 | 68 | 91 | 1.27 |
| 14 | 82 | 71 | 76 | 94 | 66 | 85 | .01 |
| 15 | 89 | 73 | 81 | 94 | 51 | 79 | 0 |
| 16 | 88 | 70 | 79 | 94 | 44 | 75 | 0 |
| 17 | 86 | 67 | 76 | 95 | 44 | 77 | 0 |
| 18 | 87 | 68 | 78 | 95 | 50 | 79 | 0 |
| 19 | 90 | 70 | 80 | 94 | 39 | 74 | 0 |
| 20 | 89 | 72 | 80 | 92 | 40 | 74 | 0 |
| 21 | 90 | 74 | 82 | 93 | 51 | 81 | .41 |
| 22 | 91 | 72 | 82 | 94 | 40 | 75 | 0 |
| 23 | 90 | 72 | 81 | 94 | 44 | 75 | 0 |
| 24 | 84 | 72 | 78 | 96 | 58 | 84 | .01 |
| 25 | 90 | 73 | 82 | 94 | 46 | 76 | 0 |
| 26 | 89 | 72 | 80 | 94 | 50 | 79 | .04 |
| 27 | 90 | 73 | 82 | 94 | 50 | 80 | .26 |
| 28 | 85 | 74 | 80 | 93 | 61 | 84 | .01 |
| 29 | 92 | 74 | 83 | 93 | 59 | 80 | .01 |
| 30 | 91 | 74 | 82 | 94 | 42 | 73 | T |
| 31 | 90 | 75 | 82 | 91 | 44 | 73 | 0 |
| Sum | 2726 | 2260 | | 2918 | 1634 | | 3.69 |
| Mean | 87.9 | 72.9 | 80.4 | 94.1 | 52.7 | 79.3 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1961 | .66 | 1966 | 2.42 |
| 1962 | .60 | 1967 | .19 |
| 1963 | 1.94 | 1968 | T |
| 1964 | T | 1969 | 2.96 |
| 1965 | 1.35 | 1970 | 3.69 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.862
Departure from normal + .020
Highest 30.03 Date 20
Lowest 29.68 Date 6

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.4
Departure from normal + 0.3
Highest 92 Date 29
Lowest 67 Date 17

**RAINFALL**
**(Inches)**

Total 3.69
Departure from normal + 2.51
Greatest in 24 hours 1.44
Date 10 & 11

**WIND**

Average hourly velocity 6.4 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the N on the 31

**SUNSHINE**

Average number hours per day 7.6
Percentage of possible 65

**NUMBER OF DAYS**

Clear 1
Partly Cloudy 20
Cloudy 10
.01 inch of rain or more 12
Thunderstorms 2
Light fog 2
Dense fog 0

Number of hours with rain 50

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** FEBRUARY 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 91 | 72 | 82 | 94 | 47 | 78 | 0 |
| 2 | 91 | 73 | 82 | 94 | 46 | 76 | 0 |
| 3 | 91 | 74 | 82 | 93 | 43 | 74 | 0 |
| 4 | 90 | 73 | 82 | 93 | 39 | 70 | .02 |
| 5 | 91 | 72 | 82 | 92 | 32 | 68 | 0 |
| 6 | 91 | 71 | 81 | 92 | 43 | 72 | 0 |
| 7 | 92 | 72 | 82 | 93 | 40 | 70 | 0 |
| 8 | 88 | 71 | 80 | 93 | 43 | 68 | T |
| 9 | 90 | 73 | 82 | 90 | 43 | 74 | T |
| 10 | 87 | 74 | 80 | 85 | 50 | 72 | T |
| 11 | 89 | 75 | 82 | 89 | 56 | 76 | T |
| 12 | 92 | 76 | 84 | 92 | 48 | 74 | 0 |
| 13 | 91 | 76 | 84 | 90 | 47 | 70 | 0 |
| 14 | 92 | 76 | 84 | 87 | 46 | 68 | 0 |
| 15 | 91 | 76 | 84 | 91 | 50 | 73 | 0 |
| 16 | 91 | 77 | 84 | 91 | 48 | 77 | 0 |
| 17 | 92 | 76 | 84 | 91 | 48 | 75 | T |
| 18 | 86 | 74 | 80 | 90 | 53 | 77 | .05 |
| 19 | 93 | 72 | 82 | 91 | 34 | 70 | T |
| 20 | 90 | 74 | 82 | 93 | 44 | 70 | 0 |
| 21 | 91 | 71 | 81 | 90 | 34 | 61 | 0 |
| 22 | 92 | 70 | 81 | 90 | 33 | 66 | 0 |
| 23 | 91 | 72 | 82 | 94 | 41 | 72 | 0 |
| 24 | 90 | 74 | 82 | 93 | 45 | 71 | 0 |
| 25 | 93 | 72 | 82 | 94 | 40 | 73 | 0 |
| 26 | 94 | 72 | 83 | 94 | 37 | 68 | 0 |
| 27 | 91 | 73 | 82 | 92 | 35 | 66 | 0 |
| 28 | 92 | 73 | 82 | 92 | 30 | 62 | 0 |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| Sum | 2543 | 2054 | | 2563 | 1195 | | .07 |
| Mean | 90.8 | 73.4 | 82.1 | 91.5 | 42.7 | 71.1 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1961 | .75 | 1966 | T |
| 1962 | .05 | 1967 | T |
| 1963 | 3.82 | 1968 | 1.73 |
| 1964 | .46 | 1969 | 1.70 |
| 1965 | .08 | 1970 | .07 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.856
Departure from normal + .002
Highest 29.98 Date 10
Lowest 29.69 Date 14

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 82.1
Departure from normal + 1.5
Highest 94 Date 26
Lowest 70 Date 22

### RAINFALL
(Inches)

Total .07
Departure from normal -.59
Greatest in 24 hours .05
Date 18

### WIND

Average hourly velocity 8.4 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the N on the 23

### SUNSHINE

Average number hours per day 9.1
Percentage of possible 77

### NUMBER OF DAYS

Clear 1
Partly Cloudy 20
Cloudy 7
.01 inch of rain or more 2
Thunderstorms 0
Light fog 0
Dense fog 0

Number of hours with rain 3

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** MARCH 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 71 | 82 | 91 | 39 | 70 | |
| 2 | 91 | 73 | 82 | 94 | 41 | 73 | |
| 3 | 92 | 72 | 82 | 95 | 40 | 72 | |
| 4 | 90 | 72 | 81 | 93 | 46 | 75 | |
| 5 | 91 | 73 | 82 | 92 | 46 | 73 | |
| 6 | 93 | 72 | 82 | 94 | 42 | 70 | |
| 7 | 90 | 71 | 80 | 92 | 44 | 73 | |
| 8 | 89 | 71 | 80 | 92 | 44 | 70 | |
| 9 | 91 | 71 | 81 | 90 | 38 | 70 | |
| 10 | 89 | 73 | 81 | 92 | 51 | 79 | .03 |
| 11 | 89 | 74 | 82 | 93 | 46 | 84 | .29 |
| 12 | 82 | 73 | 78 | 93 | 70 | 84 | .02 |
| 13 | 84 | 75 | 80 | 90 | 61 | 82 | |
| 14 | 89 | 74 | 82 | 92 | 49 | 80 | .05 |
| 15 | 91 | 75 | 83 | 89 | 39 | 66 | |
| 16 | 92 | 72 | 82 | 91 | 38 | 68 | |
| 17 | 94 | 72 | 83 | 88 | 42 | 70 | |
| 18 | 92 | 77 | 84 | 92 | 48 | 73 | |
| 19 | 94 | 76 | 85 | 89 | 40 | 78 | |
| 20 | 95 | 75 | 85 | 94 | 43 | 71 | |
| 21 | 94 | 76 | 85 | 96 | 38 | 69 | |
| 22 | 92 | 77 | 84 | 89 | 45 | 69 | |
| 23 | 92 | 78 | 85 | 89 | 46 | 69 | |
| 24 | 92 | 79 | 86 | 82 | 42 | 66 | |
| 25 | 91 | 77 | 84 | 90 | 45 | 78 | .29 |
| 26 | 88 | 77 | 82 | 94 | 48 | 78 | |
| 27 | 89 | 79 | 84 | 96 | 49 | 76 | T |
| 28 | 90 | 78 | 84 | 96 | 46 | 72 | |
| 29 | 85 | 76 | 80 | 99 | 70 | 89 | T |
| 30 | 87 | 77 | 82 | 98 | 68 | 87 | T |
| 31 | 88 | 77 | 82 | 95 | 60 | 82 | T |
| Sum | 2798 | 2313 | | 2860 | 1464 | | .68 |
| Mean | 90.3 | 74.6 | 82.4 | 92.3 | 47.2 | 74.4 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1961 | .20 | 1966 | .10 |
| 1962 | .17 | 1967 | 1.72 |
| 1963 | .12 | 1968 | .78 |
| 1964 | T | 1969 | .37 |
| 1965 | 0 | 1970 | .68 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.832
Departure from normal - .011
Highest 29.96 Date 15
Lowest 29.71 Date 21

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 82.4
Departure from normal + 0.7
Highest 95 Date 20
Lowest 71 Date 8

**RAINFALL**
**(Inches)**

Total .68
Departure from normal + .07
Greatest in 24 hours .31
Date 11 & 12

**WIND**

Average hourly velocity 6.6 mph.
Prevailing direction NW
Maximum for five minutes 24
mph. from the N on the 16

**SUNSHINE**

Average number hours per day 8.0
Percentage of possible 66

**NUMBER OF DAYS**

Clear 5
Partly Cloudy 10
Cloudy 16
.01 inch of rain or more 5
Thunderstorms 4
Light fog 0
Dense fog 0

Number of hours with rain 12

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** APRIL 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 92 | 76 | 84 | 97 | 52 | 79 | 0 |
| 2 | 92 | 76 | 84 | 94 | 50 | 76 | 0 |
| 3 | 94 | 76 | 85 | 95 | 44 | 75 | 0 |
| 4 | 94 | 77 | 86 | 94 | 44 | 75 | 0 |
| 5 | 94 | 80 | 87 | 90 | 38 | 68 | 0 |
| 6 | 92 | 79 | 85 | 92 | 48 | 78 | 0 |
| 7 | 90 | 78 | 84 | 94 | 54 | 79 | 0 |
| 8 | 82 | 79 | 80 | 98 | 80 | 92 | .20 |
| 9 | 78 | 75 | 76 | 99 | 92 | 96 | 1.25 |
| 10 | 87 | 74 | 80 | 98 | 64 | 88 | T |
| 11 | 88 | 77 | 82 | 96 | 60 | 84 | 0 |
| 12 | 87 | 77 | 82 | 96 | 64 | 84 | 0 |
| 13 | 88 | 78 | 83 | 98 | 59 | 82 | .47 |
| 14 | 89 | 77 | 83 | 98 | 60 | 82 | .01 |
| 15 | 91 | 76 | 84 | 98 | 54 | 84 | T |
| 16 | 91 | 78 | 84 | 96 | 56 | 79 | 0 |
| 17 | 92 | 76 | 84 | 98 | 43 | 73 | 0 |
| 18 | 92 | 75 | 84 | 97 | 48 | 77 | 0 |
| 19 | 92 | 76 | 84 | 96 | 60 | 90 | .72 |
| 20 | 92 | 76 | 84 | 93 | 54 | 81 | .01 |
| 21 | 93 | 77 | 85 | 96 | 50 | 78 | 0 |
| 22 | 92 | 79 | 86 | 95 | 50 | 75 | 0 |
| 23 | 91 | 77 | 84 | 98 | 53 | 78 | 0 |
| 24 | 93 | 76 | 84 | 98 | 47 | 75 | 0 |
| 25 | 92 | 76 | 84 | 98 | 50 | 74 | 0 |
| 26 | 90 | 77 | 84 | 98 | 56 | 85 | .31 |
| 27 | 90 | 76 | 83 | 97 | 63 | 90 | .01 |
| 28 | 89 | 76 | 82 | 98 | 64 | 86 | 0 |
| 29 | 91 | 76 | 84 | 97 | 56 | 82 | 0 |
| 30 | 92 | 77 | 84 | 96 | 51 | 86 | .21 |
| 31 | -- | -- | -- | -- | -- | -- | --- |
| Sum | 2710 | 2303 | | 2888 | 1664 | | 3.19 |
| Mean | 90.3 | 76.8 | 83.5 | 96.3 | 55.5 | 81.0 | |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.829
Departure from normal - 0.001
Highest 29.93 Date 17
Lowest 29.71 Date 1

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 83.5
Departure from normal + 1.3
Highest 94 Date 5
Lowest 74 Date 10

### RAINFALL
(Inches)

Total 3.19
Departure from normal + 0.40
Greatest in 24 hours 1.33
Date 8 & 9

### WIND

Average hourly velocity 6.8 mph.
Prevailing direction NW
Maximum for five minutes 23
mph. from the NW on the 4

### SUNSHINE

Average number hours per day 6.6
Percentage of possible 53

### NUMBER OF DAYS

0
Partly Cloudy 10
Cloudy 20
.01 inch of rain or more 9
Thunderstorms 5
Light fog 2
Dense fog 0
Number of hours with rain 39

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1961 | 2.09 | 1966 | 1.19 |
| 1962 | 0.43 | 1967 | 5.98 |
| 1963 | 6.04 | 1968 | 0.94 |
| 1964 | 6.54 | 1969 | 6.76 |
| 1965 | 0.26 | 1970 | 3.19 |

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C.Z. **Month:** MAY 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 75 | 82 | 97 | 59 | 86 | 0 |
| 2 | 87 | 76 | 82 | 98 | 63 | 90 | 0.65 |
| 3 | 89 | 76 | 82 | 98 | 54 | 81 | T |
| 4 | 92 | 78 | 85 | 94 | 48 | 75 | T |
| 5 | 93 | 77 | 85 | 95 | 44 | 74 | 0 |
| 6 | 90 | 77 | 84 | 95 | 48 | 73 | T |
| 7 | 94 | 75 | 84 | 95 | 40 | 72 | 0 |
| 8 | 92 | 75 | 84 | 98 | 50 | 77 | 0 |
| 9 | 94 | 74 | 84 | 99 | 50 | 81 | 0.03 |
| 10 | 87 | 75 | 81 | 97 | 64 | 93 | 0.17 |
| 11 | 88 | 76 | 82 | 97 | 62 | 89 | 0.36 |
| 12 | 88 | 74 | 81 | 97 | 68 | 93 | 1.03 |
| 13 | 85 | 74 | 80 | 97 | 77 | 94 | 0.26 |
| 14 | 87 | 74 | 80 | 98 | 72 | 93 | T |
| 15 | 79 | 75 | 77 | 96 | 96 | 96 | 1.19 |
| 16 | 79 | 75 | 77 | 100 | 84 | 98 | 0.35 |
| 17 | 83 | 75 | 79 | 99 | 83 | 95 | 0.35 |
| 18 | 84 | 76 | 80 | 97 | 76 | 88 | 0.26 |
| 19 | 84 | 76 | 80 | 94 | 76 | 90 | 0.41 |
| 20 | 86 | 76 | 81 | 95 | 74 | 89 | 0.22 |
| 21 | 87 | 74 | 80 | 95 | 70 | 88 | 0.09 |
| 22 | 91 | 76 | 84 | 96 | 64 | 87 | 0.51 |
| 23 | 90 | 75 | 82 | 95 | 64 | 89 | 0.82 |
| 24 | 87 | 77 | 82 | 96 | 76 | 91 | 0.71 |
| 25 | 88 | 77 | 82 | 95 | 76 | 90 | 0.14 |
| 26 | 85 | 76 | 80 | 97 | 78 | 92 | 2.52 |
| 27 | 81 | 74 | 78 | 97 | 84 | 94 | 0.11 |
| 28 | 84 | 74 | 79 | 98 | 78 | 89 | 0.13 |
| 29 | 86 | 75 | 80 | 96 | 72 | 90 | 2.39 |
| 30 | 86 | 74 | 80 | 98 | 72 | 92 | 0.10 |
| 31 | 87 | 75 | 81 | 98 | 74 | 94 | 0.05 |
| Sum | 2702 | 2336 | | 2997 | 2096 | | 12.85 |
| Mean | 87.2 | 75.4 | 81.2 | 96.7 | 67.6 | 87.8 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1961 | 5.02 | 1966 | 13.40 |
| 1962 | 5.54 | 1967 | 5.22 |
| 1963 | 5.00 | 1968 | 6.84 |
| 1964 | 6.72 | 1969 | 7.64 |
| 1965 | 13.14 | 1970 | 12.85 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.852
Departure from normal +0.026
Highest 29.97 Date 6th
Lowest 29.72 Date 31st

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 81.2
Departure from normal + 0.2
Highest 94 Date 9th
Lowest 74 Date 21st

### RAINFALL
(Inches)

Total 12.85
Departure from normal + 4.79
Greatest in 24 hours 2.52
Date 26

### WIND

Average hourly velocity 5.8 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the S on the 18th

### SUNSHINE

Average number hours per day 6.6
Percentage of possible 53

### NUMBER OF DAYS

Clear 1
Partly Cloudy 6
Cloudy 24
.01 inch of rain or more 23
Thunderstorms 10
Light fog 2
Dense fog 0

Number of hours with rain 91

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C.Z. **Month:** JUNE 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 86 | 75 | 80 | 100 | 80 | 93 | T |
| 2 | 86 | 76 | 81 | 97 | 76 | 92 | .24 |
| 3 | 91 | 76 | 84 | 98 | 75 | 92 | .38 |
| 4 | 85 | 76 | 80 | 98 | 82 | 95 | 0 |
| 5 | 89 | 76 | 82 | 99 | 75 | 93 | .26 |
| 6 | 90 | 75 | 82 | 99 | 74 | 91 | T |
| 7 | 86 | 76 | 81 | 98 | 74 | 95 | .04 |
| 8 | 91 | 76 | 84 | 98 | 67 | 89 | .03 |
| 9 | 86 | 76 | 81 | 96 | 76 | 91 | .17 |
| 10 | 82 | 73 | 78 | 96 | 84 | 92 | .28 |
| 11 | 85 | 76 | 80 | 93 | 74 | 87 | .01 |
| 12 | 90 | 74 | 82 | 93 | 62 | 84 | 0 |
| 13 | 82 | 75 | 78 | 96 | 84 | 93 | .12 |
| 14 | 88 | 74 | 81 | 97 | 66 | 93 | .04 |
| 15 | 88 | 74 | 81 | 97 | 66 | 88 | 0 |
| 16 | 88 | 75 | 82 | 96 | 70 | 91 | .01 |
| 17 | 90 | 73 | 82 | 97 | 68 | 88 | 0 |
| 18 | 93 | 75 | 84 | 96 | 69 | 87 | 0 |
| 19 | 93 | 77 | 85 | 96 | 62 | 92 | [illegible] |
| 20 | 86 | 76 | 81 | 96 | 73 | 90 | [illegible] |
| 21 | 84 | 76 | 80 | 98 | 81 | 94 | .24 |
| 22 | 86 | 75 | 80 | 96 | 74 | 92 | T |
| 23 | 81 | 75 | 78 | 96 | 80 | 93 | .44 |
| 24 | 88 | 74 | 81 | 96 | 64 | 88 | 0 |
| 25 | 89 | 76 | 82 | 96 | 70 | 88 | .01 |
| 26 | 83 | 75 | 79 | 99 | 82 | 94 | [illegible] |
| 27 | 88 | 75 | 82 | 97 | 73 | 89 | 0 |
| 28 | 89 | 76 | 82 | 97 | 69 | 93 | 1.12 |
| 29 | 87 | 76 | 82 | 98 | 71 | 92 | .03 |
| 30 | 82 | 74 | 78 | 97 | 80 | 93 | .02 |
| 31 | | | | | | | |
| Sum | 2612 | 2256 | | 2906 | 2201 | | 5.35 |
| Mean | 87.1 | 75.2 | 81.1 | 96.9 | 73.4 | 91.0 | |

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**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1961 | 10.72 | 1966 | 13.90 |
| 1962 | 10.20 | 1967 | 6.53 |
| 1963 | 7.35 | 1968 | 7.74 |
| 1964 | 6.07 | 1969 | 6.06 |
| 1965 | 4.91 | 1970 | 5.35 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.840
Departure from normal +.010
Highest 29.98 Date 26th
Lowest 29.70 Date 3rd

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 81.1
Departure from normal +0.9
Highest 93 Date 18th
Lowest 73 Date 17th

**RAINFALL**
(Inches)

Total 5.35
Departure from normal -2.66
Greatest in 24 hours 1.19
Date 26 & 25

**WIND**

Average hourly velocity 4.8 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the S on the 28th

**SUNSHINE**

Average number hours per day 5.1
Percentage of possible 40

**NUMBER OF DAYS**

Clear 1
Partly Cloudy 9
Cloudy 20
.01 inch of rain or more 20
Thunderstorms 22
Light fog 1
Dense fog 1

Number of hours with rain 49

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PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** Balboa Heights, C. Z. **Month:** July 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 85 | 74 | 80 | 94 | 67 | 84 | 0 |
| 2 | 87 | 73 | 80 | 98 | 72 | 89 | 0 |
| 3 | 86 | 75 | 80 | 98 | 74 | 91 | T |
| 4 | 90 | 75 | 82 | 98 | 67 | 89 | 0 |
| 5 | 93 | 76 | 84 | 98 | 68 | 88 | .07 |
| 6 | 90 | 77 | 84 | 99 | 69 | 93 | 1.09 |
| 7 | 87 | 76 | 82 | 99 | 76 | 92 | .01 |
| 8 | 86 | 76 | 81 | 98 | 67 | 90 | .02 |
| 9 | 87 | 73 | 80 | 96 | 68 | 90 | .02 |
| 10 | 89 | 74 | 82 | 96 | 62 | 88 | 1.04 |
| 11 | 84 | 73 | 78 | 97 | 78 | 91 | 0 |
| 12 | 85 | 73 | 79 | 96 | 74 | 90 | .01 |
| 13 | 89 | 73 | 81 | 96 | 70 | 88 | 0 |
| 14 | 82 | 76 | 79 | 98 | 87 | 95 | .50 |
| 15 | 87 | 75 | 81 | 98 | 76 | 91 | 0 |
| 16 | 83 | 76 | 80 | 99 | 78 | 93 | .22 |
| 17 | 86 | 75 | 80 | 96 | 72 | 87 | 0 |
| 18 | 87 | 76 | 82 | 94 | 80 | 87 | .13 |
| 19 | 85 | 74 | 80 | 96 | 72 | 91 | .10 |
| 20 | 83 | 73 | 78 | 96 | 75 | 90 | .12 |
| 21 | 87 | 73 | 80 | 97 | 76 | 90 | 0 |
| 22 | 90 | 75 | 82 | 98 | 64 | 87 | 0 |
| 23 | 86 | 76 | 81 | 96 | 74 | 91 | .11 |
| 24 | 90 | 75 | 82 | 95 | 64 | 89 | .03 |
| 25 | 86 | 74 | 80 | 99 | 74 | 94 | .02 |
| 26 | 82 | 72 | 77 | 97 | 77 | 91 | T |
| 27 | 83 | 73 | 78 | 96 | 74 | 92 | .05 |
| 28 | 85 | 72 | 78 | 97 | 80 | 91 | .53 |
| 29 | 86 | 73 | 80 | 100 | 76 | 95 | 1.55 |
| 30 | 80 | 72 | 76 | 100 | 86 | 96 | .23 |
| 31 | 85 | 74 | 80 | 99 | 78 | 91 | .06 |
| Sum | 2671 | 2302 | | 3014 | 2265 | | 5.91 |
| Mean | 86.2 | 74.3 | 80.3 | 97.2 | 73.1 | 90.5 | |

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**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1961 | 8.40 | 1966 | 11.39 |
| 1962 | 5.69 | 1967 | 8.11 |
| 1963 | 8.38 | 1968 | 10.42 |
| 1964 | 5.38 | 1969 | 4.81 |
| 1965 | 3.64 | 1970 | 5.91 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.857
Departure from normal +.025
Highest 29.97 Date 20th
Lowest 29.75 Date 5th

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 80.3
Departure from normal -0.1
Highest 93 Date 5th
Lowest 72 Date 30th

**RAINFALL**
**(Inches)**

Total 5.91
Departure from normal -1.48
Greatest in 24 hours 1.75
Date 29 & 30

**WIND**

Average hourly velocity 4.4 mph.
Prevailing direction NW
Maximum for five minutes 28
mph. from the NW on the 6th

**SUNSHINE**

Average number hours per day 5.9
Percentage of possible 47

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 15
Cloudy 16
.01 inch of rain or more 20
Thunderstorms 14
Light fog 0
Dense fog 0

Number of hours with rain 62

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, CANAL ZONE **Month:** AUGUST 1970

| Date | Air Temperature (Deg. F.) | | | Relative Humidity (Percent) | | | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| | Max. | Min. | Mean | Max. | Min. | Bihourly mean | |
| 1 | 83 | 74 | 78 | 100 | 82 | 93 | .44 |
| 2 | 84 | 73 | 78 | 100 | 75 | 93 | .19 |
| 3 | 86 | 74 | 80 | 97 | 74 | 90 | .01 |
| 4 | 87 | 73 | 80 | 98 | 73 | 92 | 0 |
| 5 | 86 | 74 | 80 | 99 | 76 | 94 | .01 |
| 6 | 80 | 74 | 77 | 100 | 89 | 98 | .12 |
| 7 | 86 | 71 | 78 | 100 | 74 | 93 | 0 |
| 8 | 86 | 74 | 80 | 100 | 74 | 93 | .02 |
| 9 | 89 | 73 | 81 | 100 | 72 | 92 | .24 |
| 10 | 89 | 72 | 80 | 100 | 72 | 92 | .01 |
| 11 | 87 | 75 | 81 | 98 | 63 | 91 | .01 |
| 12 | 83 | 75 | 79 | 100 | 80 | 95 | .11 |
| 13 | 80 | 73 | 76 | 100 | 86 | 97 | .39 |
| 14 | 83 | 73 | 78 | 100 | 80 | 94 | .14 |
| 15 | 85 | 73 | 79 | 98 | 76 | 92 | 0 |
| 16 | 84 | 75 | 80 | 96 | 80 | 93 | .08 |
| 17 | 87 | 72 | 80 | 96 | 74 | 92 | .26 |
| 18 | 86 | 73 | 80 | 96 | 71 | 88 | 0 |
| 19 | 90 | 74 | 82 | 96 | 69 | 87 | 0 |
| 20 | 86 | 76 | 81 | 98 | 75 | 92 | .99 |
| 21 | 86 | 74 | 80 | 97 | 75 | 89 | 0 |
| 22 | 88 | 75 | 82 | 96 | 73 | 89 | T |
| 23 | 89 | 74 | 82 | 96 | 68 | 90 | .06 |
| 24 | 87 | 74 | 80 | 96 | 72 | 93 | .23 |
| 25 | 81 | 74 | 78 | 96 | 83 | 91 | .35 |
| 26 | 86 | 74 | 80 | 96 | 72 | 88 | .42 |
| 27 | 84 | 74 | 79 | 96 | 80 | 92 | .05 |
| 28 | 85 | 72 | 78 | 97 | 77 | 91 | .08 |
| 29 | 87 | 74 | 80 | 99 | 78 | 93 | 1.29 |
| 30 | 83 | 74 | 78 | 97 | 81 | 92 | T |
| 31 | 81 | 72 | 76 | 96 | 82 | 93 | 1.42 |
| Sum | 2644 | 2282 | | 3034 | 2356 | | 6.92 |
| Mean | 85.3 | 73.6 | 79.4 | 97.9 | 76.0 | 92.0 | |

### TOTAL RAINFALL FOR THIS MONTH IN:

| | | | |
|---|---|---|---|
| 1961 | 5.92 | 1966 | 3.54 |
| 1962 | 6.43 | 1967 | 12.14 |
| 1963 | 6.86 | 1968 | 8.04 |
| 1964 | 9.60 | 1969 | 11.66 |
| 1965 | 7.74 | 1970 | 6.92 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.835
Departure from normal + 0.003
Highest 29.97 Date 31
Lowest 29.73 Date 28

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 79.4
Departure from normal - 0.8
Highest 90 Date 19
Lowest 71 Date 7

### RAINFALL
(Inches)

Total 6.92
Departure from normal -0.92
Greatest in 24 hours 1.42
Date 31

### WIND

Average hourly velocity 4.3 mph.
Prevailing direction NW
Maximum for five minutes 17
mph. from the NW on the 23

### SUNSHINE

Average number hours per day 5.2
Percentage of possible 42

### NUMBER OF DAYS

Clear 0
Partly Cloudy 13
Cloudy 18
.01 inch of rain or more 23
Thunderstorms 10
Light fog 2
Dense fog 2

Number of hours with rain 76

PANAMA CANAL COMPANY
ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

# MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** OCTOBER 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 81 | 73 | 77 | 98 | 83 | 97 | 2.43 |
| 2 | 83 | 72 | 78 | 98 | 76 | 94 | 1.14 |
| 3 | 84 | 72 | 78 | 98 | 80 | 95 | .22 |
| 4 | 86 | 71 | 78 | 98 | 70 | 90 | T |
| 5 | 84 | 73 | 78 | 100 | 78 | 92 | 0 |
| 6 | 87 | 74 | 80 | 98 | 71 | 93 | .04 |
| 7 | 88 | 74 | 81 | 98 | 75 | 93 | .09 |
| 8 | 81 | 74 | 78 | 100 | 89 | 96 | .01 |
| 9 | 86 | 74 | 80 | 98 | 74 | 89 | .02 |
| 10 | 85 | 73 | 79 | 98 | 73 | 92 | .17 |
| 11 | 84 | 73 | 78 | 96 | 73 | 90 | .31 |
| 12 | 87 | 73 | 80 | 98 | 75 | 91 | T |
| 13 | 90 | 73 | 82 | 98 | 68 | 91 | .51 |
| 14 | 78 | 73 | 76 | 100 | 94 | 98 | .50 |
| 15 | 89 | 72 | 80 | 99 | 66 | 90 | 0 |
| 16 | 86 | 73 | 80 | 99 | 78 | 94 | 0 |
| 17 | 91 | 74 | 82 | 99 | 70 | 93 | .46 |
| 18 | 86 | 75 | 80 | 99 | 72 | 92 | 0 |
| 19 | 80 | 74 | 77 | 96 | 89 | 94 | .40 |
| 20 | 89 | 74 | 82 | 96 | 69 | 90 | .26 |
| 21 | 86 | 75 | 80 | 96 | 73 | 90 | .01 |
| 22 | 80 | 72 | 76 | 99 | 84 | 94 | .12 |
| 23 | 82 | 75 | 78 | 100 | 79 | 90 | .18 |
| 24 | 87 | 75 | 81 | 94 | 66 | 85 | 0 |
| 25 | 84 | 75 | 80 | 96 | 76 | 92 | .53 |
| 26 | 84 | 73 | 78 | 96 | 74 | 92 | .15 |
| 27 | 85 | 72 | 78 | 98 | 75 | 92 | 0 |
| 28 | 87 | 73 | 80 | 100 | 74 | 92 | .02 |
| 29 | 86 | 74 | 80 | 100 | 78 | 94 | .11 |
| 30 | 84 | 74 | 79 | 99 | 76 | 92 | .46 |
| 31 | 85 | 73 | 79 | 96 | 72 | 90 | 0 |
| Sum | 2635 | 2275 | | 3038 | 2350 | | 8.14 |
| Mean | 85.0 | 73.4 | 79.2 | 98.0 | 75.8 | 92.2 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1961 | 10.58 | 1966 | 23.21 |
| 1962 | 13.45 | 1967 | 7.45 |
| 1963 | 7.65 | 1968 | 9.76 |
| 1964 | 10.55 | 1969 | 7.03 |
| 1965 | 12.09 | 1970 | 8.14 |

**AIR PRESSURE**
**(Inches reduced to sea level)**

Bihourly mean 29.825
Departure from normal - 0.002
Highest 29.95 Date 31
Lowest 29.70 Date 7

**AIR TEMPERATURE**
**(Degrees Fahr.)**

Monthly mean 79.2
Departure from normal 0
Highest 91 Date 17
Lowest 71 Date 4

**RAINFALL**
**(Inches)**

Total 8.14
Departure from normal - 2.54
Greatest in 24 hours 2.43
Date 1

**WIND**

Average hourly velocity 3.5 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the NW on the 13

**SUNSHINE**

Average number hours per day 4.6
Percentage of possible 38

**NUMBER OF DAYS**

Clear 0
Partly Cloudy 8
Cloudy 23
.01 inch of rain or more 22
Thunderstorms 10
Light fog 2
Dense fog 2

Number of hours with rain 81

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** NOVEMBER 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 89 | 74 | 82 | 99 | 66 | 91 | .51 |
| 2 | 85 | 73 | 79 | 98 | 74 | 91 | .02 |
| 3 | 85 | 74 | 80 | 96 | 74 | 92 | .21 |
| 4 | 79 | 74 | 76 | 97 | 90 | 96 | .06 |
| 5 | 85 | 74 | 80 | 99 | 72 | 92 | .09 |
| 6 | 86 | 72 | 79 | 97 | 70 | 92 | .47 |
| 7 | 88 | 71 | 80 | 97 | 70 | 93 | .77 |
| 8 | 84 | 73 | 78 | 98 | 76 | 90 | .50 |
| 9 | 84 | 72 | 78 | 97 | 75 | 91 | .30 |
| 10 | 81 | 75 | 78 | 97 | 82 | 92 | .41 |
| 11 | 84 | 74 | 79 | 96 | 75 | 86 | 0 |
| 12 | 85 | 76 | 80 | 94 | 69 | 83 | .64 |
| 13 | 85 | 72 | 78 | 98 | 74 | 88 | 0 |
| 14 | 84 | 74 | 79 | 97 | 78 | 91 | .05 |
| 15 | 84 | 74 | 79 | 98 | 74 | 91 | .01 |
| 16 | 86 | 73 | 80 | 97 | 70 | 93 | .42 |
| 17 | 83 | 73 | 78 | 98 | 82 | 95 | 1.51 |
| 18 | 82 | 73 | 78 | 98 | 79 | 94 | .29 |
| 19 | 87 | 74 | 80 | 96 | 68 | 90 | .05 |
| 20 | 86 | 74 | 80 | 95 | 80 | 92 | .10 |
| 21 | 85 | 72 | 78 | 99 | 74 | 91 | 0 |
| 22 | 83 | 73 | 78 | 99 | 71 | 92 | .12 |
| 23 | 88 | 72 | 80 | 100 | 64 | 87 | 0 |
| 24 | 86 | 71 | 78 | 99 | 66 | 87 | 0 |
| 25 | 83 | 71 | 77 | 100 | 74 | 93 | .48 |
| 26 | 84 | 72 | 78 | 97 | 70 | 87 | 0 |
| 27 | 80 | 73 | 76 | 96 | 78 | 90 | 0 |
| 28 | 82 | 74 | 78 | 96 | 80 | 93 | .59 |
| 29 | 77 | 72 | 74 | 96 | 82 | 94 | .03 |
| 30 | 81 | 72 | 76 | 97 | 80 | 94 | .33 |
| 31 | -- | -- | -- | -- | -- | -- | ---- |
| Sum | 2521 | 2191 | | 2921 | 2237 | | 7.96 |
| Mean | 84.0 | 73.0 | 78.5 | 97.4 | 74.6 | 91.0 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1961 | 8.49 | 1966 | 9.18 |
| 1962 | 13.39 | 1967 | 11.87 |
| 1963 | 10.49 | 1968 | 7.91 |
| 1964 | 12.01 | 1969 | 12.25 |
| 1965 | 17.16 | 1970 | 7.96 |

**AIR PRESSURE**
(Inches reduced to sea level)

Bihourly mean 29.852
Departure from normal + 0.031
Highest 29.98 Date 6
Lowest 29.75 Date 27

**AIR TEMPERATURE**
(Degrees Fahr.)

Monthly mean 78.5
Departure from normal - 0.7
Highest 89 Date 1
Lowest 71 Date 7

**RAINFALL**
(Inches)

Total 7.96
Departure from normal - 2.37
Greatest in 24 hours 1.75
Date 17 & 18

**WIND**

Average hourly velocity 6.7 mph.
Prevailing direction NW
Maximum for five minutes 21
mph. from the NW on the 24

**SUNSHINE**

Average number hours per day 4.5
Percentage of possible 39

**NUMBER OF DAYS**

Clear 1
Partly Cloudy 6
Cloudy 23
.01 inch of rain or more 23
Thunderstorms 6
Light fog 0
Dense fog 0

Number of hours with rain 104

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# PANAMA CANAL COMPANY

ENGINEERING AND CONSTRUCTION BUREAU
METEOROLOGICAL AND HYDROGRAPHIC BRANCH

## MONTHLY METEOROLOGICAL SUMMARY

75TH MERIDIAN TIME

**Station:** BALBOA HEIGHTS, C. Z. **Month:** DECEMBER 1970

| Date | Air Temperature (Deg. F.) Max. | Min. | Mean | Relative Humidity (Percent) Max. | Min. | Bihourly mean | Total Rainfall (Inches) |
|---|---|---|---|---|---|---|---|
| 1 | 78 | 72 | 75 | 99 | 90 | 98 | .30 |
| 2 | 80 | 72 | 76 | 100 | 87 | 97 | .82 |
| 3 | 78 | 73 | 76 | 99 | 87 | 96 | .39 |
| 4 | 84 | 72 | 78 | 96 | 74 | 90 | 0 |
| 5 | 77 | 73 | 75 | 98 | 90 | 96 | .08 |
| 6 | 79 | 74 | 76 | 99 | 87 | 96 | .73 |
| 7 | 87 | 73 | 80 | 96 | 68 | 88 | .03 |
| 8 | 81 | 73 | 77 | 95 | 79 | 92 | .08 |
| 9 | 81 | 73 | 77 | 99 | 80 | 95 | .75 |
| 10 | 84 | 73 | 78 | 99 | 75 | 95 | .06 |
| 11 | 79 | 74 | 76 | 99 | 89 | 97 | .11 |
| 12 | 86 | 73 | 80 | 100 | 72 | 92 | .01 |
| 13 | 86 | 75 | 80 | 97 | 75 | 92 | .50 |
| 14 | 85 | 74 | 80 | 98 | 75 | 93 | .35 |
| 15 | 89 | 74 | 82 | 98 | 72 | 93 | .14 |
| 16 | 78 | 73 | 76 | 98 | 92 | 98 | 1.35 |
| 17 | 81 | 72 | 76 | 98 | 80 | 94 | 0 |
| 18 | 83 | 73 | 78 | 97 | 84 | 95 | .12 |
| 19 | 87 | 74 | 80 | 98 | 68 | 88 | .02 |
| 20 | 90 | 73 | 82 | 98 | 60 | 86 | 0 |
| 21 | 86 | 72 | 79 | 98 | 68 | 90 | 0 |
| 22 | 88 | 73 | 80 | 99 | 68 | 94 | 1.10 |
| 23 | 80 | 73 | 76 | 99 | 86 | 98 | .63 |
| 24 | 85 | 74 | 80 | 100 | 75 | 94 | .02 |
| 25 | 85 | 74 | 80 | 100 | 69 | 90 | .05 |
| 26 | 85 | 73 | 79 | 98 | 72 | 92 | .03 |
| 27 | 86 | 73 | 80 | 98 | 70 | 89 | 0 |
| 28 | 88 | 72 | 80 | 98 | 64 | 85 | 0 |
| 29 | 88 | 73 | 80 | 97 | 66 | 86 | T |
| 30 | 89 | 74 | 82 | 99 | 61 | 88 | .01 |
| 31 | 89 | 75 | 82 | 98 | 71 | 89 | 0 |
| Sum | 2602 | 2269 | | 3045 | 2354 | | 7.68 |
| Mean | 83.9 | 73.2 | 78.6 | 98.2 | 75.9 | 92.5 | |

**TOTAL RAINFALL FOR THIS MONTH IN:**

| | | | |
|---|---|---|---|
| 1961 | 4.74 | 1966 | 5.07 |
| 1962 | 8.21 | 1967 | 8.67 |
| 1963 | .80 | 1968 | 2.92 |
| 1964 | 3.12 | 1969 | 4.88 |
| 1965 | 4.07 | 1970 | 7.68 |

### AIR PRESSURE
(Inches reduced to sea level)

Bihourly mean 29.799
Departure from normal - .011
Highest 29.91 Date 3
Lowest 29.66 Date 30

### AIR TEMPERATURE
(Degrees Fahr.)

Monthly mean 78.6
Departure from normal 0
Highest 90 Date 20
Lowest 72 Date 2

### RAINFALL
(Inches)

Total 7.68
Departure from normal + 2.66
Greatest in 24 hours 1.73
Date 22 & 23

### WIND

Average hourly velocity 4.7 mph.
Prevailing direction NW
Maximum for five minutes 18
mph. from the NW on the 28

### SUNSHINE

Average number hours per day 4.4
Percentage of possible 38

### NUMBER OF DAYS

Clear 0
Partly Cloudy 8
Cloudy 23
.01 inch of rain or more 23
Thunderstorms 2
Light fog 2
Dense fog 2

Number of hours with rain 90

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