

551.506 (261.1) WEATHER OF NORTH AMERICA AND ADJACENT OCEANS
NORTH ATLANTIC OCEAN

By F. A. YOUNG

The following table shows the average pressure for the month at a number of land stations on the coast and islands of the North Atlantic. The readings are for 8 a. m. 75th meridian time and the departures are only approximate, as the normals were taken from the Pilot Chart and are based on Greenwich mean noon observations, or 7 a. m. 75th meridian time.

Station	Average pressure	Departure
	Inches	Inches
St. Johns, Newfoundland.....	29.71	-0.13
Nantucket.....	30.03	-0.01
Hatteras.....	30.06	-0.06
Key West.....	30.11	+0.02
New Orleans.....	30.14	+0.04
Swan Island.....	29.96	-0.03
Turks Island.....	30.13	+0.05
Bermuda.....	30.07	-0.05
Horta, Azores.....	30.13	+0.03
Lerwick, Shetland Islands.....	29.90	+0.17
Valencia, Ireland.....	30.14	+0.24
London.....	30.04	+0.04

While the weather over the ocean during the month was not so unfavorable as in January, the number of days on which winds of gale force were reported was, taken as a whole, fully equal to the normal as shown on the Pilot Chart, and somewhat above over the western section of the steamer lanes.

Judging from reports received, fog was unusually rare during the month. The maximum amount occurred in the 5-degree square between the 45th and 50th meridians, where it was observed on 4 days, while comparatively clear weather prevailed over the steamer lanes and off the European coast.

At the time of the Greenwich mean noon observation on the 1st, Newfoundland was surrounded by an area of low pressure, and moderate to strong gales were reported from vessels in the region between the 35th and 50th parallels and 40th and 60th meridians. Heavy winds were also encountered later in the day by vessels in southern waters, as shown by following storm log:

British S. S. *Manchester Spinner*:

Gale began on Jan. 30th, wind E. Lowest barometer 29.93 inches at 5 a. m. on the 1st, wind SSW., 6, in latitude 29° 28' N., longitude 54° 02' W. End on the 1st, wind SW. Highest force of wind 8; shifts SSW-SW.

This disturbance apparently moved rapidly northeastward, although it was impossible to locate its position on the 2d, on account of lack of observations. On the 2d a well-developed area of low pressure appeared in the vicinity of Hatteras and strong gales were encountered in the region between the 30th and 35th parallels and the 74th meridian and American coast.

The eastward movement of the LOW was attended by a decided increase in its storm area, which on the 3d extended from the 27th to the 45th parallel, and from the 50th to the 70th meridian.

On the 4th the disturbance was off the east coast of Newfoundland, and increasing in its rate of translation, reaching on the 7th a point near latitude 53° N., longitude 25° W. Storm logs:

British S. S. *Almagro*:

Gale began on the 2d, wind SW. Lowest barometer 29.21 inches at 2 p. m. on the 2d, wind WNW., 10, in latitude 31° 30' N., longitude 74° W. End on the 3d, wind NNW. Highest force of wind 11; shifts W.-WNW.-NW.

American S. S. *West Caddoa*:

Gale began on the 2d, wind WSW. Lowest barometer 29.70 inches at 10 p. m. on the 2d, wind WNW., 10, in latitude 29° N., longitude 67° 30' W. End on the 3d, wind NW. Highest force of wind 10, WNW.; shifts W.-WNW.

American S. S. *Balsam*:

Gale began on the 4th wind SE., 7. Lowest barometer 28.74 inches at 8 a. m. on the 4th, wind SSE., 8, in latitude 44° 58' N., longitude 49° 45' W. End on the 6th, wind NNW., 6. Highest force of wind 10, N., shifts SE.-WNW.

On the 7th there was another disturbance near Hatteras that moved slowly northeastward, and on the 7th was off the coast of Nova Scotia; this was not accompanied by any very heavy weather, although a few vessels between the 60th meridian and American coast, rendered storm reports.

Maps VIII to XIII cover the period from the 8th to 13th, inclusive, and show the disturbance that on the former date was central near latitude 47° N., longitude 42° W.

On the 9th northerly winds of moderate gale force were encountered off the coast of Florida; these were of anticyclonic origin, as unusually high pressure prevailed along the coast of the southern Atlantic States as well as in the Gulf of Mexico. The disturbance of the 11th and 12th over the western section of the ocean is shown on maps XI and XII, as well as the LOW that on the 11th was central a short distance west of the Azores, and which afterwards joined forces with the northern depression. A large number of storm logs were received from vessels involved in the disturbances mentioned above and reports denoting highest force of wind of from 9 to 11 were not uncommon.

From the 10th to 12th strong winds prevailed within the Tropics as shown by following storm log:

American S. S. *F. H. Hillman*:

Gale began on the 10th, wind NE. Lowest barometer 29.93 inches at 1 p. m. on the 11th, wind ENE., in latitude 13° 31' N., longitude 74° 54' W. End of the 12th, wind ENE. Highest force of wind 8; shifts NE.-ENE.

On the 13th and 14th there was a LOW central a short distance south of Newfoundland and vessels in the western section of the steamer lanes, as well as in the vicinity of the Bermudas, reported moderate to strong gales, although in southern waters a number of reports were also received indicating moderate weather.

From the 16th to 21st strong northerly winds were encountered in the vicinity of the Canal Zone, as shown by following storm logs:

American S. S. *O. T. Dodd*:

Gale began on the 16th, wind ENE. Lowest barometer 29.87 inches at noon on the 16th, wind ENE., 9, in latitude 11° 03' N., longitude 78° 53' W. End on the 18th, wind ENE. Highest force of wind 9; steady ENE.

Dutch S. S. *Moerdijk*:

Gale began on the 19th, wind NE. Lowest barometer 29.85 inches at 8 p. m. on the 19th, wind NE., 7, in latitude 11° 13' N., longitude 77° 28' W. End on the 21st, wind E. Highest force of wind 8, NE., shifts NE.-E.

On the 17th St. Johns, Newfoundland, was near the center of a depression, and while no storm logs were received from vessels in the western part of the ocean, the British S. S. *Aral*, on that date, while about 10° east of the Azores, recorded a NNE. wind, force 9, barometer reading 30.16 inches.

By the 18th the northern disturbance was central near latitude 40° N., longitude 42° W., surrounded by a limited area of moderate gales.

On the 20th a LOW in the vicinity of the Virginia Capes was responsible for heavy easterly to southerly winds along the American coast between Charleston and New York, while on the same day a second disturbance was central near latitude 48° N., longitude 37° W.

The western LOW moved northeastward along the coast and on the 22d was over Newfoundland. The second disturbance moved but little from the 20th to the 21st, but on the 22d surrounded the Azores. On the same date Horta recorded a barometer reading of 29.36 inches, while severe gales were reported from the vicinity, as shown by following storm log:

Italian S. S. *Dante Alighieri*:

Gale began on the 22d, wind SE. Lowest barometer 29.27 inches at 6 a. m. on the 22d, wind S., in latitude 37° 44' N., longitude 25° 44' W. End on the 23d, wind W.; highest force of wind 10; shifts SE.—S.

On the 23d and 24th moderate conditions were the rule over the entire ocean, with the exception of a few isolated localities where winds of gale force were encountered.

On the 25th a disturbance of limited extent was central near latitude 42° N., longitude 46° W., and strong northwesterly and northerly gales, accompanied by hail and snow, were reported by vessels in the southerly and westerly quadrants, respectively. This LOW apparently moved nearly due north and on the 26th was probably a short distance east of Newfoundland, although it was impossible to plot its position on account of lack of observations.

The daily weather map of the 26th showed a marked depression in the Gulf of Mexico that moved rapidly northeastward, being in the vicinity of Hatteras on the 27th, while winds of gale force swept the American coast from the Virginia Capes to the Bahamas.

On the 27th an area of low pressure was central near latitude 43° N., and longitude 35° W., and moderate gales were reported from the region immediately westward of the Azores.

On the 28th a LOW in the vicinity of the Bermudas was responsible for heavy winds in the southerly and westerly quadrants, and a few vessels in mid-ocean also rendered storm reports.

The British daily weather report for the 29th shows a well-developed depression central near Lerwick, Shetland Islands, and northwesterly winds of gale force were reported by a number of stations in the British Isles, while the few reports received from vessels near the coast indicated moderate weather only.

CYCLONIC DISTURBANCES IN THE SOUTH PACIFIC OCEAN

By ALBERT J. McCURDY, Jr.

Weather reports received from vessels for February, 1924, indicate that stormy conditions prevailed in the South Pacific Ocean in the first and middle decades of the month.

On February 6 and 7 the American S. S. *W. J. Hanna*, Capt. Norman P. Forbes, proceeding from Talara, Peru, to Bahia Blanca, experienced fresh gales with overcast weather and rough seas. Mr. Vincent R. Cage, observer, states that the lowest pressure observed was 29.70 inches (uncorrected), occurring in the afternoon and night of the 6th, in 41° 21' S., 77° 16' W. The wind at this time was west, force 7. Similar conditions continued throughout the 7th.

The British S. S. *City of Naples*, Capt. H. Johnson, proceeding from Sydney to Panama, on February 11, while south of Cook Island, encountered a moderate southerly gale with heavy seas. Mr. R. C. Cooper, observer, states that the lowest pressure observed was 29.76 inches (corrected), occurring at 1 a. m. in 33° 15' S., 158° 57' W. The wind at this time was SSE., force 7. The gale ended on the 12th; wind S.

On February 19 winds of gale force were experienced by the British S. S. *Tahiti*, Capt. B. M. Aldwell, Wellington toward Sydney. Mr. J. C. Adams, observer, reports rough northeast seas with heavy rain. At 9 p. m., when in 35½° S., 155½° E., the barometric reading was 29.59 inches (corrected). The wind at this time was northerly, force 6, but later shifted to west and increased to a fresh gale at 1 a. m. on the 20th.

551.506 (265.2) —————

NORTH PACIFIC OCEAN

By WILLIS E. HURD

Much stormy weather, with a considerable amount of snowfall, prevailed along the northern trans-Pacific routes during February. Moderate to strong gales occurred daily over some portion of the sea, being most widespread perhaps on the 1st, 2d, 3d, 20th, 25th, 26th, and 28th. The highest force of the wind recorded was 11, whereas in January full hurricane velocities occurred on several occasions.

There is no record at hand of tropical storms in the Far East. In the western coast waters of tropical America the only gales of consequence were such as are typical of the region over and in the neighborhood of the Gulf of Tehuantepec. Here several vessels reported northerly to easterly winds of force 7 to 9 on the 5th, 8th to 10th, 20th and 21st of the month, accompanied by fine, hazy weather, with very little depression of the barometer, and rough seas.

In the Hawaiian region generally brisk trades prevailed. At Honolulu the wind velocities exceeded 25 miles an hour on 10 days, with a maximum velocity of 35 miles from the northeast on the 13th. The prevailing wind was from the east.

The average pressure at Dutch Harbor was 29.53 inches, based on p. m. observations, or 0.03 inch below normal. Such a comparison does not reveal the true pressure conditions at that station, however. Beginning with the 2d the pressure was continuously above normal through the 16th, a period of 15 days wherein the average daily departure was +0.51 inch. From the 17th until the end of the month pressure was continuously below normal, the average daily departure being -0.61 inch. The highest pressure, 30.34 inches, occurred on the 12th and 13th; the lowest, 28.18 inches, on the 25th. Absolute range 2.16 inches. At Midway Island the average pressure (28 days) was 30.08 inches, or 0.08 inch above normal. The highest reading, 30.28 inches, was recorded on the 22d; the lowest, 29.74 inches, on the 17th. At Honolulu the average p. m. pressure was 30.07 inches, or 0.03 inch above normal. The highest reading, 30.23 inches, was recorded on the 25th; the lowest, 29.77 inches, on the 16th.

The alignment of pressure conditions for the ocean as a whole showed the eastern North Pacific HIGH appearing in well-developed form on the first four days of the month. Thereafter until the 20th it was a weaker and more fluctuating area, sometimes cresting over the western portion of the United States or just off the coast, sometimes