U.S. DEPARTMENT OF COMMERCE, WEATHER BUREAU IN COOPERATION WITH
THE WASHINGTON STATE DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT
CLIMATOGRAPHY OF THE UNITED STATES 20-45

LATITUDE 46° 08'
LONGITUDE 117° 08'
ELEV. (GROUND) 3590 ft.

CLIMATOLOGICAL SUMMARY

STATION ANATONE, WASHINGTON

MEANS AND EXTREMES FOR PERIOD 1931-1960

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	** Mean degree days	Precipitation Totals (Inches): Mean	Greatest daily	Year	Snow, Sleet: Mean	Maximum monthly	Year	Greatest daily	Year	Mean number of days: Precip. .10 inch or more	Temperatures Max.: 90° and above	32° and below	Min.: 32° and below	0° and below	Month
(a)	23	23	23	23		23		30	23	23		30	20		20		22	22	22	22	22	
JAN	32.1	18.8	25.5	53	1935+	-26	1950	1252	2.51	1.34	1936	26.8	51.0	1937	12.0	1956+	8	0	14	28	3	JAN
FEB	36.9	22.0	29.5	58	1958	-23	1950	1011	2.26	1.89	1932	17.3	46.1	1932	13.5	1932	7	0	7	25	1	FEB
MAR	44.1	27.2	35.7	70	1960	-8	1945	893	2.15	1.47	1931	12.0	27.5	1939	14.0	1955	8	0	1	23	*	MAR
APR	53.7	32.6	43.2	81	1946+	2	1936	645	1.75	.96	1935	3.6	5.5	1945	4.0	1948+	6	0	*	15	0	APR
MAY	63.0	38.8	50.9	88	1940	22	1954	415	2.23	1.50	1956	.8	8.0	1950	4.0	1950	6	0	0	6	0	MAY
JUN	68.4	44.0	56.2	93	1939+	26	1951	255	2.02	1.41	1941						6	*	0	*	0	JUN
JUL	79.9	49.2	64.6	101	1960+	33	1948	65	.58	1.12	1948						2	4	0	0	0	JUL
AUG	78.6	48.0	63.3	98	1932	31	1960	78	.81	1.55	1960						2	2	0	0	0	AUG
SEP	70.9	42.3	56.6	95	1950	24	1949+	267	1.09	1.53	1940						3	1	0	2	0	SEP
OCT	58.5	36.3	47.4	84	1943	1	1935	527	1.97	1.99	1940	.8	7.0	1950	4.0	1939	5	0	*	9	0	OCT
NOV	43.9	28.1	36.0	68	1949	-18	1955	852	2.32	1.05	1943	7.6	37.5	1931	12.0	1931	7	0	3	21	*	NOV
DEC	36.1	24.1	30.1	57	1939	-12	1932	1085	2.41	1.42	1955	18.2	47.0	1948	10.0	1948	7	0	7	26	*	DEC
Year	55.5	34.3	44.9	101	1960+	-26	1950	7345	22.10	1.99	1940	87.1	51.0	1937	14.0	1955	67	7	32	155	4	Year

(a) Average length of record, years.

T Trace, an amount too small to measure.

** Base 65°F

+ Also on earlier dates, months, or years.

* Less than one half.

(a) Averages computed from number of years of data available during period 1931-60. Incomplete records for several years.

NARRATIVE CLIMATOLOGICAL SUMMARY

Anatone, located in the southeastern corner of the State, is on a plateau along the northeastern slope of the Blue Mountains. The Grande Ronde River flows along the southern edge of the plateau while the Snake River, which forms the Idaho-Washington border, flows along the eastern edge. In a westerly direction and within 20 miles of the city, the Blue Mountains reach elevations of 6,000 feet. This section is near the southern edge of agricultural land and also within a short distance of forested areas of the Blue Mountains. In a northerly direction, there is a gradual decrease in elevation and most of the land is devoted to growing hay, small grain crops and raising livestock. Rivers, small mountain streams, and forests in the higher elevations of the Blue Mountains offer many opportunities for recreational activities.

The Rocky Mountains shield this section from the more intense winter storms moving southward across Canada and the Cascade Range forms a barrier to the easterly movement of moist air from over the ocean. However, air from each of these source regions reaches this section, producing a climate with characteristics of both continental and marine types. Summers are warm, dry and sunny. Winters are cloudy and comparatively mild for this latitude and elevation.

In an average summer, afternoon temperatures are near 80° with nighttime readings in the upper 40's. Maximum temperatures exceed 90° on 15 to 20 days in the warmer summers and on 1 to 3 days in the cooler summers. Although the average date of the last freezing temperature is near the first of June and the first in the fall is in mid-September, below freezing temperatures have occurred in all months with the exception of July. Temperatures in the Blue Mountains can be expected to decrease approximately 3°F with each 1000 feet increase in elevation.

Afternoon temperatures in winter range from the upper 20's to the lower 30's and nighttime readings from 15° to 25°. Maximum temperatures have remained below freezing on 50 to 70 days during the colder winters and on less than 15 days in the warmer winters. Minimum temperatures are below freezing on most nights between the last of October and mid-April. Below zero temperatures are recorded on a few nights almost every winter. During one of the coldest winters in recent years, 1948-49, minimum temperatures dropped to zero or lower on 21 nights, -10° on 11 nights, -15° on 5 nights and -20° on 2 nights.

Precipitation is light in summer, increasing in the fall, reaching a peak in winter then decreasing in the spring with an increase in May and June followed by a sharp decrease near the first of July. In summer, precipitation frequently occurs as showers and several thunderstorms can be expected. Annual precipitation has ranged from 13 to 31 inches. Total precipitation for the driest month, July, is less than .1 inches in 1 summer out of 10; also it exceeds 1.7 in 1 out of 10 summers. Annual precipitation is less than 17 inches in 1 year out of 10; also it exceeds 28 inches in 1 year out of 10.

Winter precipitation may occur as rain or snow. Snowfall has been recorded as early as mid-October and as late as May. The ground is generally snow covered from mid-December until near the first of March. Snow reaches a depth of 15 to 25 inches almost every winter and 30 inches or more in heavy snowfall seasons. The greatest depth on the ground, 50 inches, was recorded in February 1932. In the higher elevations of the Blue Mountains, a snow cover remains on the ground from the last of October until May or June. The few snow survey reports available for elevations above 4,000 feet indicate 3 to 5 feet of snow on the ground the first of April. Occasionally, a sharp rise in temperature accompanied by heavy rainfall results in rapid melting of snow.

The number of clear or only partly cloudy days each month increases from approximately 7 in winter to 15 in spring and fall to 25 in summer. Average daily lowest and highest relative humidity is 70% and 80% in winter; 50% and 70% in spring and fall; 25% and 60% in summer. This section of the State receives approximately 25% of the possible sunshine in winter, 50% to 60% in spring and fall and 85% in summer.

Earl L. Phillips
State Climatologist
U.S. Weather Bureau
Seattle, Washington

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	30.3	28.4	39.2	47.6	58.7	61.4	70.2	68.7	55.6	44.9	30.6	25.2	46.7
1932	20.7	23.0	33.6	48.4	56.0	66.4	66.8	69.1	59.7	46.7	36.0	22.6	45.8
1933	25.5	18.7	35.2	46.8	53.4	63.1	70.2	70.7	54.4	46.8	37.4	31.2	46.1
1934	30.4	32.6	41.5	55.3	58.4	65.1	70.2	71.0	55.0	45.4	40.3	28.4	49.5
1935	24.4	30.0	34.0	44.1	55.7	60.6	69.5	67.8	61.7	44.6	31.5	30.2	46.2
1936	26.0	10.9	34.8	49.6	60.8	64.6	70.8	69.6	58.8	52.1	32.1	28.6	46.6
1937	6.2	24.5	39.4	46.4	57.6	65.0	72.8	66.0	61.8	50.0	37.1	29.1	46.3
1938	27.4	30.2	37.8	48.9	57.4	68.6	74.7	67.2	67.0	49.1	31.6	25.4	48.8
1939	28.9	23.9	37.0	51.6	58.7	58.9	70.2	70.6	60.4	45.6	36.0	33.0	47.9
1940	25.7	31.3	41.9	49.6	58.8	66.8	70.5	67.6	63.8	49.3	30.4	28.4	48.7
1941	29.4	32.2	43.6	51.4	57.4	62.6	72.0	66.3	53.6	45.4	37.4	30.4	48.5
1942	22.2	31.0	38.9	50.0	54.4	59.2	68.9	69.8	61.2	47.8	31.7	27.8	46.9
1943	16.1	31.0	32.4	49.2	52.2	58.2	68.1	66.1	60.4	48.6	35.8	23.6	45.1
1944	26.8	28.1	35.1	49.1	56.4	62.0	69.9	66.1	62.2	50.2	36.2	23.4	46.7
1945	25.8	30.3	37.2	44.2	57.2	62.0	71.3	70.8	57.9	47.6	33.1	26.3	47.0
1946	25.2	29.4	39.2	48.2	57.8	59.6	67.8	63.8	52.4	40.0	26.8	23.2	44.4
1947	17.2	26.8	38.1	45.6	-	58.4	65.9	62.7	57.5	46.8	32.6	28.3	-
1948	21.6	24.8	35.0	43.1	54.9	67.6	65.4	63.8	58.0	43.0	33.0	16.6	43.9
1949	7.7	21.5	35.8	49.4	59.0	61.6	67.6	66.8	60.6	43.7	38.0	24.3	44.7
1950	5.5	26.9	33.1	44.0	54.0	63.4	73.9	69.9	61.6	45.6	33.9	32.6	45.4
1951	23.3	28.0	33.3	48.6	57.1	61.2	69.9	68.0	59.1	46.3	33.1	20.0	45.7
1952	23.1	31.7	39.9	51.5	57.9	61.5	68.9	69.3	62.9	51.7	31.0	31.3	48.4
1953	33.5	33.7	40.6	45.6	55.8	60.5	69.1	68.0	59.4	47.4	37.9	29.4	48.4
1954	23.0	33.7	36.7	44.6	56.6	59.1	65.8	64.6	58.1	43.9	40.7	29.3	46.3
1955	27.7	26.4	29.3	42.0	51.8	62.9	65.7	67.0	58.7	47.2	27.6	21.5	44.0
1956	26.5	22.3	34.3	49.3	58.9	59.9	69.5	69.1	60.0	46.2	30.5	27.2	46.1
1957	11.9	24.6	37.6	48.2	62.2	62.6	65.7	63.3	62.5	45.7	34.0	30.2	45.7
1958	30.8	-	39.2	46.9	62.1	66.5	71.6	71.7	57.8	45.9	30.9	28.8	-
1959	25.0	27.2	36.9	47.8	52.5	61.3	68.4	63.7	56.4	45.1	29.2	25.5	44.9
1960	19.2	29.1	36.5	45.7	51.1	61.3	71.3	63.6	58.0	46.7	33.0	24.9	45.0
1961	27.3	34.5	39.2	45.0	54.8	65.5	68.1	68.5	54.7	42.4	28.5	23.8	46.0
1962	17.3	29.5	34.7	48.1	52.8	60.3	65.6	63.6	57.9	45.6	37.1	30.5	45.2
1963	20.2	31.4	39.1	45.2	54.5	62.0	64.6	66.6	62.2	48.5	34.1	25.3	46.1

PROBABILITY OF 32°, 28°, 24°, 20° AND 16° OCCURRING AS LATE IN THE SPRING OR AS EARLY IN THE FALL AS THE DATES LISTED IN THE FOLLOWING TABLE:

	PROBABILITY - SPRING				PROBABILITY - FALL			
	75%	50%	25%	10%	10%	25%	50%	75%
32°	May 7	May 21	Jun 3	Jun 16	Aug 29	Sep 9	Sep 21	Oct 3
28°	Apr 17	Apr 30	May 14	May 26	Sep 7	Sep 18	Sep 30	Oct 12
24°	Mar 26	Apr 8	Apr 21	May 3	Oct 1	Oct 12	Oct 24	Nov 5
20°	Mar 12	Mar 26	Apr 8	Apr 20	Oct 14	Oct 25	Nov 6	Nov 18
16°	Feb 24	Mar 10	Mar 24	Apr 5	Nov 1	Nov 13	Nov 24	Dec 6

In the above table, the 50% point is the same as the average for each freeze category.

From a statistical viewpoint based on past data, the probabilities could be considered as follows when converted into the number of occurrences to expect in a 40-year period:

75% - 30 years in 40
50% - 20 years in 40
25% - 10 years in 40
10% - 4 years in 40

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	2.37	.83	1.49	.41	.54	3.58	.46	.18	1.20	1.30	2.19	2.26	16.81
1932	1.62	.66	1.60	1.01	.14	.02	.06	.16	.03	1.71	4.18	3.02	14.21
1933	2.69	1.18	1.98	.30	1.36	.64	.09	.97	1.70	1.54	.97	3.44	16.86
1934	2.39	.26	1.67	.96	.99	.48	.22	.45	.91	2.31	2.54	2.63	15.81
1935	2.69	1.01	1.29	.57	.69	1.96	1.96	.70	.38	2.09	.83	2.15	16.32
1936	1.93	1.70	.26	1.76	2.07	2.22	.68	.30	.61	.05	.02	.77	12.37
1937	1.33	2.20	1.46	2.84	.28	3.13	2.18	.56	1.12	1.25	4.76	1.77	22.88
1938	1.56	2.72	2.03	1.67	.89	1.84	.92	.43	1.04	2.81	1.42	2.93	20.26
1939	2.41	1.14	.62	.26	.60	2.83	.09	.02	.32	1.38	1.32	2.96	13.95
1940	1.25	2.60	3.09	2.49	1.10	.83	1.39	.17	2.84	3.55	2.25	2.21	23.77
1941	1.78	1.31	1.41	1.35	4.52	4.62	1.07	3.19	3.56	1.15	2.10	2.47	28.53
1942	1.59	.83	.20	1.65	4.59	2.19	2.37	.07	.37	1.19	1.49	2.20	18.74
1943	1.27	.92	1.03	1.29	1.07	3.33	1.06	1.59	.41	2.30	.89	1.42	16.58
1944	1.27	.97	.11	2.28	3.15	1.87	.40	.16	1.57	.23	3.03	1.95	16.99
1945	2.55	2.74	1.73	.40	1.91	1.46	.52	.19	2.00	2.55	2.68	1.87	20.60
1946	2.43	2.02	1.03	1.25	.76	2.77	.08	.40	1.48	1.77	1.90	1.61	17.50
1947	1.28	.48	.78	1.47	1.16	3.30	1.47	.34	1.88	3.81	1.52	2.19	19.68
1948	1.54	1.36	.26	3.18	2.91	4.12	2.65	2.67	.44	.78	2.68	2.26	24.85
1949	.61	2.03	1.16	.76	.57	1.66	1.05	.36	.35	1.63	1.82	2.38	14.38
1950	1.99	2.74	1.70	.91	.52	1.74	.81	.60	.39	4.81	2.74	3.00	21.95
1951	3.26	1.92	1.82	.35	1.05	1.20	1.03	1.39	1.18	4.68	1.88	3.63	23.39
1952	3.37	1.56	1.20	1.07	1.67	2.52	.08	1.02	.16	.10	.37	2.72	15.84
1953	2.75	1.01	1.84	2.66	2.47	4.65	.21	2.59	.42	1.10	1.83	2.10	23.63
1954	2.54	1.06	.86	.48	1.55	2.68	1.61	4.12	2.42	.21	2.31	1.29	21.13
1955	1.17	.77	1.03	2.86	1.69	2.21	2.76	0	.52	1.32	1.98	4.06	20.37
1956	2.98	1.70	1.38	.33	.89	3.45	1.67	1.44	.50	1.63	.73	1.10	17.80
1957	1.84	1.33	2.21	.51	2.79	2.36	.65	1.61	.19	2.06	1.20	1.43	18.18
1958	3.01	3.21	2.57	2.26	1.29	2.41	1.64	.84	1.82	1.50	2.41	2.14	25.10
1959	3.82	2.06	1.22	.48	3.81	1.47	.06	1.33	3.06	1.28	1.77	1.50	21.86
1960	2.10	1.29	1.39	1.72	3.48	.71	.23	.60	.55	1.46	2.75	1.12	17.40
1961	1.01	3.18	1.77	1.40	3.10	1.13	.67	1.27	.65	2.12	1.21	2.51	20.02
1962	2.25	1.24	1.04	1.04	1.59	1.15	1.30	1.24	.56	1.67	1.81	2.17	17.06
1963	.28	1.03	1.31	1.72	1.53	3.01	.98	.37	1.15	.43	2.59	1.98	16.38

STATION HISTORY

The cooperative weather station established in Laurier in 1910 has remained at the U.S. Customs Service office. The following Custom Service officials or their wives have served as cooperative weather observers:

Mrs. J.S. Myers	April 1, 1910 - December 7, 1925
W.M. Kartzmark	December 21, 1925 - January 31, 1930
F.R. Sutherland	February 1, 1930 - November 30, 1931
F.J. McMillan	December 1, 1931 - March 31, 1932
P.S. Doyle	April 1, 1932 - February 28, 1937
C.F. Brown	March 1, 1937 - May 31, 1957
H.J. Johnson	June 1, 1957 - March 31, 1958
H.J. Johnson) T.W. Pect) H.J. Johnson)	April 1, 1958 - August 31, 1964
J.O. Lium)	September 1, 1964 to date