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 47°25'
LONGITUDE 123°13'
ELEV. (GROUND) 760 ft.

CLIMATOLOGICAL SUMMARY

STATION CUSHMAN DAM
(Cushman Reservoir)
Hoodsport, 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)	30	30	30	30		30		30	30	30		30	30		30		30	30	30	30	30	
JAN	43.7	30.5	37.1	65	1940	-2	1950	865	16.65	7.20	1935	24.0	104.4	1950	36.0	1954	14	0	2	17	*	JAN
FEB	46.9	32.2	39.6	71	1938	4	1950	711	12.31	6.98	1945	10.0	50.2	1937	15.0	1949	14	0	*	15	0	FEB
MAR	51.5	34.1	42.8	76	1934	15	1955	688	10.41	6.17	1945	6.2	44.5	1956	15.0	1956	14	0	0	12	0	MAR
APR	59.9	38.1	49.0	90	1934	24	1936	480	6.07	3.81	1958	.4	5.6	1948	3.5	1948	11	*	0	4	0	APR
MAY	67.3	43.9	55.6	93	1956	29	1954	291	3.33	2.60	1941						6	*	0	*	0	MAY
JUN	71.8	47.8	59.8	100	1942	36	1952+	159	2.44	3.19	1931						6	1	0	0	0	JUN
JUL	78.3	51.1	64.7	104	1941	40	1955+	53	1.28	3.28	1934						3	3	0	0	0	JUL
AUG	77.6	51.3	64.4	99	1958	41	1960+	50	1.38	2.04	1941						3	3	0	0	0	AUG
SEP	72.2	48.6	60.4	96	1944	34	1950	144	3.74	3.81	1937						6	1	0	0	0	SEP
OCT	61.7	43.4	52.6	89	1936	27	1935	384	9.73	3.53	1947	T	1.1	1956	1.1	1956	12	0	0	1	0	OCT
NOV	50.5	36.7	43.6	75	1949	8	1955	642	14.73	6.88	1955	1.3	15.8	1950	8.5	1950	16	0	*	8	0	NOV
DEC	45.6	33.7	39.7	60	1952	13	1932	784	18.18	5.69	1941	7.0	27.0	1937	12.2	1949	16	0	*	14	0	DEC
Year	60.6	41.0	50.8	104	1941	-2	1940	5251	100.25	7.20	1935	48.9	104.4	1950	36.0	1954	121	8	2	71	*	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.

NARRATIVE CLIMATOLOGICAL SUMMARY

Cushman Reservoir is located in a narrow valley on the eastern slope of the Olympic Mountains. The Reservoir, approximately eight miles in length, begins four miles west of Hoodsport and extends to the southeastern boundary of the Olympic National Park. The terrain is rough and the mountain slopes are covered with Douglas-fir, western hemlock, western redcedar and Sitka spruce. In summer, there are many varieties of wild flowers in the mountain meadows. The roadway leading into this area from U.S. Highway 101 ends near the National Park boundary. Beyond the road, trails lead into remote and scenic areas of the Park. Roosevelt elk, black bear, black-tail deer, raccoon, cougar, marmot and other animals inhabit this section of the Olympic Peninsula. Lakes, streams, forests and the National Park offer many opportunities for outdoor recreation.

The climate is predominantly a mid-latitude, west coast, marine-type with comparatively cool, dry summers, mild but wet, cloudy winters. In late fall and winter, the prevailing flow of air into western Washington is from the southwest or west. Air reaching the coast is moist and near the temperature of the water. Cooling and condensation occur as the air moves inland and rises along the mountain slopes. This results in a wet season beginning in October, reaching a peak in winter, then decreasing in the spring. Total precipitation for January is less than seven inches in one out of ten winters; also, it exceeds 30 inches in one winter out of ten. Annual precipitation has ranged from 57 to 132 inches. During the passage of more intense winter storms, daily rainfall amounts from two to five inches are not unusual. Most of the winter season precipitation falls as rain; however, it may occur as either rain or snow. Winter season snowfall has ranged from less than 15 to more than 100 inches. In a few of the heavier snowfall winters, snow cover has remained on the ground from mid-December until March, reaching depths of 30 to 45 inches. There is an increase in both snowfall and depth on the ground as the elevation increases. The higher ridges are covered with snow from November until June.

In an average winter, afternoon temperatures are in the lower 40's and nighttime readings in the upper 20's and lower 30's. Minimum temperatures can be expected to drop to 18° above zero or lower on at least four nights in two winters out of ten. Occasionally, an outbreak of cold arctic air and strong northerly winds reach the Olympic Peninsula resulting in maximum temperatures from 15° to 25° and minimums from 5° to 10° above zero. Within a few days, colder air is replaced by warmer marine air.

In late spring and summer, the prevailing flow of air into the Olympic Peninsula is from the west and northwest. At this season, air from over the North Pacific is cooler than the surface of the land. Warming and drying of the air as it moves inland produces a dry season beginning in May and reaching a peak in midsummer. The total rainfall for each of the driest months, July and August, is less than .2 of an inch in one out of ten summers; also, the total for July exceeds 2.9 inches, and for August, 3.2 inches, in one summer out of ten. A few thunderstorms occur each summer and occasionally, forest fires are started by lightning.

During the warmest summer months, afternoon temperatures are in the mid-70's and nighttime readings are in the 50's. Maximum temperatures exceed 92° on at least four days in two out of ten summers. Along the slopes of the mountains, temperatures can be expected to decrease approximately 3°F with each 1000 feet increase in elevation. The warmest weather occurs when hot dry air from east of the Cascades reaches this area.

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	42.7	41.5	44.3	50.6	58.1	58.3	65.0	64.1	58.1	51.6	40.6	36.9	51.0
1932	35.8	37.8	43.3	48.4	53.5	60.8	60.2	62.6	60.0	53.6	46.1	35.2	49.8
1933	36.0	33.0	39.8	48.2	48.8	57.4	63.1	66.8	55.2	52.9	44.1	41.0	48.9
1934	43.0	46.6	48.7	55.8	54.5	-	60.6	64.6	57.9	53.4	45.4	39.6	-
1935	37.4	42.8	38.2	47.4	53.1	59.8	63.5	61.4	59.4	51.3	40.4	40.8	49.6
1936	39.6	32.5	40.3	51.4	57.0	60.4	64.1	66.2	59.4	56.2	46.1	40.2	51.1
1937	28.4	36.1	44.4	44.8	54.4	62.6	65.4	63.2	61.3	55.4	45.4	41.4	50.2
1938	39.0	39.8	42.8	50.2	57.2	62.2	67.0	63.8	63.8	53.8	42.6	39.9	51.8
1939	40.4	37.0	42.8	52.2	55.8	57.8	65.2	66.8	60.6	52.6	48.5	44.2	52.0
1940	41.8	42.4	47.0	51.1	58.6	63.4	64.4	65.0	63.1	54.0	41.4	42.3	52.9
1941	42.6	44.8	50.4	52.7	55.0	58.8	68.6	64.8	56.8	51.8	45.7	39.8	52.6
1942	38.6	39.6	43.6	49.5	53.6	58.1	66.2	67.8	61.4	55.4	41.2	40.2	51.3
1943	32.0	41.1	42.1	49.9	52.5	58.0	64.3	62.6	64.0	53.2	46.6	39.8	50.5
1944	40.0	40.1	42.8	48.6	55.2	60.0	65.8	64.4	63.8	57.0	44.0	39.2	51.7
1945	40.8	40.6	40.9	46.0	56.0	58.6	66.0	64.8	57.8	53.1	40.4	38.4	50.3
1946	38.0	39.0	42.4	47.3	59.4	58.1	64.4	65.3	59.6	48.5	41.1	38.6	50.1
1947	34.8	44.0	47.9	51.2	59.2	59.4	63.2	63.0	61.0	51.0	42.5	41.2	51.5
1948	38.2	36.9	42.1	44.0	53.1	62.9	62.8	60.7	-	-	40.4	34.3	-
1949	29.4	35.2	43.6	49.2	57.6	58.5	62.4	63.0	61.6	48.4	50.0	37.0	49.7
1950	24.2	36.8	40.3	45.3	52.0	61.1	64.0	65.2	59.9	47.0	41.2	42.7	48.3
1951	34.3	38.5	40.1	-	56.2	62.6	66.4	64.3	61.7	51.0	41.8	-	-
1952	-	39.3	41.9	50.4	55.9	57.3	66.0	65.0	62.3	56.9	42.8	39.4	-
1953	42.3	40.9	42.4	47.7	54.7	57.2	64.9	66.2	61.8	54.4	46.5	41.5	51.7
1954	34.5	41.2	41.9	46.3	55.3	56.7	61.4	61.3	59.5	51.7	49.1	39.3	49.9
1955	38.0	38.6	38.0	43.2	51.6	60.0	60.7	64.0	59.0	50.7	37.6	36.5	48.2
1956	36.5	34.6	38.9	50.9	60.6	-	66.2	66.6	60.5	49.7	43.0	40.3	-
1957	32.2	39.1	43.5	50.3	59.1	61.1	61.5	62.6	65.2	51.4	43.8	40.8	50.9
1958	41.6	46.1	43.5	49.1	62.4	65.3	72.2	69.6	60.6	55.3	42.1	43.7	54.3
1959	38.9	39.7	42.5	49.4	54.3	60.0	67.4	64.6	58.0	52.4	46.2	40.1	51.2
1960	37.0	41.3	42.8	48.6	52.9	60.4	68.8	62.2	60.2	53.1	42.8	40.1	50.8
1961	43.4	41.7	43.1	47.1	54.6	64.0	67.7	69.8	59.0	51.5	41.8	38.0	51.8
1962	39.1	42.4	40.8	50.5	49.9	59.1	63.8	62.5	60.4	52.3	44.1	40.8	50.5
1963	34.1	46.9	42.6	47.2	55.8	58.0	60.5	63.6	63.3	52.7	43.0	40.0	50.7
1964	37.8	40.7	42.5	46.3	52.2	58.4	63.4	62.9	58.1	54.9	41.2	35.9	49.5

APPROXIMATE TIME OF SUNRISE AND SUNSET
(Pacific Standard Time)

DATE	FEB		APR		JUN		AUG		OCT		DEC	
	SR AM	SS PM	SR AM	SS PM	SR AM	SS PM	SR AM	SS PM	SR AM	SS PM	SR AM	SS PM
1st	7:36	5:11	5:49	6:39	4:16	7:58	4:47	7:43	6:08	5:49	7:36	4:21
15th	7:15	5:33	5:21	6:58	4:11	8:08	5:05	7:21	6:27	5:22	7:50	4:19

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	25.60	10.59	16.32	8.30	1.60	9.02	.10	.17	8.66	11.51	11.24	28.98	132.09
1932	12.72	13.07	12.15	10.71	1.72	.39	2.74	3.23	.82	6.96	21.02	15.84	101.37
1933	17.77	10.10	17.18	.64	6.81	2.12	.76	.16	10.90	9.44	5.33	42.09	123.30
1934	21.98	7.24	8.65	2.55	6.24	.34	4.10	1.18	3.02	13.92	24.01	18.78	112.01
1935	30.16	9.26	12.15	3.34	1.76	1.06	.35	.65	5.94	4.55	8.15	17.15	94.52
1936	20.20	10.38	5.29	.77	6.21	5.40	1.96	1.10	2.76	.69	1.30	19.36	75.42
1937	3.85	15.73	8.42	15.81	5.22	9.09	1.47	1.87	3.96	9.73	27.15	24.42	126.72
1938	8.83	10.64	13.90	5.60	.78	.05	.36	.42	1.32	11.69	7.66	12.34	73.59
1939	22.33	8.10	5.93	1.87	3.98	1.63	.86	1.28	.61	6.87	8.52	35.29	97.27
1940	12.23	19.68	12.07	6.85	3.76	.31	.93	.91	2.04	19.70	9.63	14.92	103.03
1941	17.11	7.91	4.27	2.85	8.96	1.74	.12	4.16	5.36	5.95	14.47	22.62	95.52
1942	8.30	8.62	5.38	4.63	2.61	4.88	2.90	.22	.62	5.98	18.85	15.46	78.45
1943	8.04	6.78	11.14	8.56	2.92	2.37	.77	2.21	1.13	9.54	5.74	10.04	69.24
1944	15.14	6.61	5.26	7.55	1.45	1.49	.06	.93	2.92	6.47	18.26	4.62	70.76
1945	13.02	17.34	20.47	3.72	5.92	.38	.69	.15	4.62	4.96	22.24	18.20	111.71
1946	16.16	14.53	12.20	10.87	.29	6.08	1.60	.24	1.42	8.05	15.99	13.60	101.03
1947	15.07	15.75	6.01	5.49	.63	3.08	2.12	.30	3.61	25.44	3.21	18.22	98.93
1948	10.31	12.79	4.99	8.25	11.42	1.10	.99	2.56	7.96	5.79	20.91	15.96	103.03
1949	1.21	18.63	8.14	4.20	2.97	.67	1.74	.94	3.83	5.37	24.69	17.49	89.88
1950	15.71	19.87	18.06	6.23	1.43	.74	1.48	2.83	2.49	18.35	19.90	21.13	128.22
1951	18.55	18.47	7.50	2.95	2.05	.24	.18	.44	6.81	15.34	16.49	10.78	99.80
1952	21.22	7.35	6.97	4.76	1.42	1.31	.86	3.57	.49	1.94	5.76	23.36	79.01
1953	36.39	7.46	10.11	4.19	4.54	1.20	.62	1.47	5.78	7.79	16.06	13.59	109.20
1954	30.21	19.59	5.42	7.59	1.16	2.85	2.45	2.40	3.10	8.89	27.61	14.32	125.59
1955	7.64	6.85	9.65	8.63	.87	1.24	4.17	.05	3.62	16.32	25.25	18.44	102.73
1956	22.00	9.34	19.36	.34	1.83	6.62	.98	1.49	4.52	17.75	4.03	13.82	102.08
1957	6.61	17.01	14.44	5.68	3.26	2.13	2.34	3.05	1.89	9.75	7.69	20 04	93.89
1958	23.76	18.04	5.95	9.34	1.20	1.43	T	.42	2.48	7.69	15.83	19.64	105.78
1959	20.39	7.29	11.39	9.33	2.15	3.66	.68	.67	8.49	5.60	17.39	13.86	100.90
1960	16.98	14.15	13.42	10.44	4.69	.52	.03	2.39	1.09	9.95	17.40	11.16	102.22
1961	28.15	24.37	16.31	3.43	4.54	.61	.70	1.42	1.65	9.99	15.25	14.93	121.35
1962	5.60	6.89	10.82	6.63	4.83	2.76	.34	3.37	5.93	10.13	23.20	12.65	93.15
1963	3.95	13.27	9.23	8.54	4.01	2.55	3.74	2.41	1.64	16.94	23.59	14.59	104.46
1964	26.10	3.75	9.08	1.99	2.71	4.51	2.43	1.92	3.41	3.21	16.78	10.94	86.83

STATION HISTORY

The first climatological station in this area was located on a slope near Lake Cushman and at an elevation of 570 feet above sea level. Records at this location were kept by Mrs. W.H. Rowe from March 1914 to January 1917.

The present climatological station was established near the Hoist House above the Dam and Power House on January 1, 1924. Employees of the Tacoma Light Department have served as cooperative observers since the station was established.