

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
 IN COOPERATION WITH PORT TOWNSEND CHAMBER OF COMMERCE
 CLIMATOGRAPHY OF THE UNITED STATES NO. 20 - 45

LATITUDE 48° 6'
 LONGITUDE 122° 46'
 (GROUND) 58 feet

CLIMATOLOGICAL SUMMARY

STATION: Port Townsend, Wash.

MEANS AND EXTREMES FOR PERIOD 1929 - 1958

Month	Temperature (°F)							* # Mean degree days	Precipitation Totals (Inches)							Mean number of days					Month			
	Means			Extremes					Mean	Greatest daily	Year	Snow, Sleet				Precip. .10 inch or more	Temperatures							
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year					Mean	Maximum monthly	Year	Greatest daily		Year	90° and above	Max.			Min.		
																			32° and below	32° and below		0° and below	0° and below	
(a)	30	30	30	30		30		30	30	30		30	30		30	30	30	30						
Jan	43.6	34.4	39.0	62	1935	5	1950	800	2.11	1.17	1939	1.2	24.7	1950	8.0	1943	8	0	2	10	0			Jan
Feb	46.8	35.8	41.3	63	1941	7	1950	660	1.66	1.18	1957	.8	11.8	1936	6.0	1957+	6	0	*	7	0			Feb
Mar	51.1	37.9	44.5	68	1937	19	1951	640	1.56	.93	1945	.4	7.1	1951	4.5	1954	6	0	*	4	0			Mar
Apr	57.0	41.4	49.2	76	1956	27	1951	480	1.16	.84	1945	*	T	1958+	T	1958+	4	0	0	*	0			Apr
May	63.0	45.5	54.3	84	1956	28	1954	340	1.26	2.08	1948						4	0	0	*	0			May
Jun	66.9	49.1	58.0	93	1955	37	1952	210	1.43	1.25	1936						4	*	0	0	0			Jun
Jul	71.2	51.2	61.2	94	1941	40	1949	130	.67	1.34	1932						2	*	0	0	0			Jul
Aug	71.4	51.4	61.4	88	1933+	40	1947	120	.67	.93	1951						2	0	0	0	0			Aug
Sep	67.1	49.0	58.1	85	1951	35	1947	220	1.10	1.52	1931						4	0	0	0	0			Sep
Oct	58.6	44.7	51.7	75	1952+	27	1935	420	1.66	1.00	1942			1935	.5	1935	5	0	0	0	0			Oct
Nov	50.4	40.0	45.2	68	1949	12	1955	590	2.23	1.10	1933	.3	6.0	1955	4.0	1955	7	0	0	*	3	0		Nov
Dec	46.3	37.7	42.0	67	1947	16	1951	720	2.40	1.41	1941	.2	10.0	1955	3.0	1949	8	0	*	5	0			Dec
Year	57.8	43.2	50.5	94	Jul 1941	5	Jan 1950	5330	17.91	2.08	May 1948	2.9	24.7	Jan 1950	8.0	Jan 1943	60	*	2	29	0			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.

Estimated.

NARRATIVE CLIMATOLOGICAL SUMMARY

Port Townsend, the county seat of Jefferson County, is located in the northeastern corner of the Olympic Peninsula, facing Admiralty Inlet in an easterly direction and the Strait of Juan de Fuca in a northwesterly direction. The Olympic Mountains rising to elevations of 5000 to 7000 feet are at a distance of approximately 30 miles in a southwesterly direction. The higher peaks in the Olympic Mountains remain snowcapped during most of the year and there are several glaciers near the summit of Mt. Olympus, elevation 7945 feet. The Strait of Juan de Fuca and the Strait of Georgia are outlets to the Pacific Ocean in a westerly and northwesterly direction. The terrain in this area is rather rough and covered with timber, with the exception of a few valleys which are devoted to agriculture. In an easterly direction, and at a distance of approximately 60 miles, the Cascade Mountains rise to elevations of 5000 to 7000 feet, with peaks in excess of 10,000 feet, and form a major north-south topographic and climatic barrier across the State.

The climate in the Port Townsend area is predominately a maritime type, with cool summers, rather mild winters, and a small daily range of temperature. Some of the factors which influence the climate in this area are: terrain, distance and direction from the Pacific Ocean, the Strait of Juan de Fuca, and the position of the semi-permanent high and low pressure centers located over the north Pacific Ocean. The high pressure area becomes smaller and moves southward during the fall and winter, and the low pressure area, with its center near the Aleutian Islands, also moves southward. A clockwise circulation of air around the high pressure center and a counter-clockwise circulation around the low brings a flow of warm and moist air into western Washington. Cooling and condensation occur as the warm and moist air rises along the southwestern slope of the Olympic Mountains. This results in heavy precipitation along the windward slope and rather light precipitation along the lee slope of the Olympic Mountains.

Port Townsend is located in the area which is often referred to as the "rain shadow" of the Olympic Mountains. This area of rather light precipitation extends along the northeastern slope of the Olympic Mountains from the vicinity of Port Angeles, east-

ward to Whidbey and Camano Islands, and north into the San Juan Islands. The fall rains usually begin about October and continue with only a few breaks until some time in February. While the rainy weather prevails, there is very little variation in the temperature. Daytime temperatures are generally in the 40's and nighttime temperatures in the 30's. The lowest temperatures during the winter usually occur when cold air from the interior of the continent moves into western Washington, and a high pressure area develops over the Pacific Northwest. This condition usually results in clear skies, northerly winds, rather dry air, daytime temperatures in the 20's and nighttime temperatures ranging from 10° to 15°. Cold weather associated with an influx of air from the interior of the continent seldom lasts for more than a few days. Snow frequently occurs at the beginning and end of these periods of low temperatures. The snow depth seldom exceeds 4 to 6 inches or remains on the ground for more than a few days in the lower elevations, however, depths increase rapidly in the higher elevations along the slopes of the Olympic Mountains, which are a winter sports area.

The high pressure area over the north Pacific Ocean spreads northward into the Aleutian Islands during the summer. A clockwise circulation around this high pressure center brings a flow of air from a northwesterly direction into western Washington. This air is cooler than the land surface, thus the summers are rather cool and dry. The average afternoon temperature during the summer is near 70° and the nighttime temperature near 50°. Afternoon temperatures exceed 80° on only a few days during an average summer.

Thunderstorms occur rather infrequently and a tornado has never been observed in this area of the State. The average temperature of the water in the Strait of Juan de Fuca and Admiralty Inlet is about 44° in the winter and 52° in the summer. Fog occurs most frequently during the latter part of the summer and fall.

Earl L. Phillips
 State Climatologist
 Weather Bureau
 Seattle, Washington

