WEATHER ON THE NORTH PACIFIC OCEAN

By WILLIS E. HURD

Atmospheric pressure.—Mean pressure was practically normal in July at nearly all points on the North Pacific shores. The most notable departure from normal occurred at St. Paul Island, in the Bering Sea, where the average pressure, 1,014.2 millibars (29.95 inches), was 3.7 millibars (0.11 inch) above the July normal. At the northern extremity of Alaska, the mean pressure at Barrow was 2.5 millibars (0.08 inch) below the normal.

The Aleutian LOW was considerably weaker in July than in the previous June, and lay as a shallow depressed area along the Aleutian Islands and the Peninsula of Alaska. The tendency, however, was for a general northward movement of the LOW into the Arctic Ocean, as indicated by the mean pressure at Barrow, which was 3½ millibars (0.10 inch) below that at St. Paul.

High pressure prevailed in midocean.

TABLE 1.—*Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Pacific Ocean and its shores, July 1941*

Station	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Millibars	*Millibars*	*Millibars*		*Millibars*	
Barrow	1,010.7	−2.5	1,025	10	992	21
Dutch Harbor	1,013.9	+0.1	1,028	27	995	13
St. Paul	1,014.2	+3.7	1,030	27	995	14
Kodiak	(1)	(1)	(1)	(1)	(1)	(1)
Juneau	1,018.0	+0.4	1,027	9	1,005	20
Tatoosh Island	1,018.0	+0.2	1,026	29	1,010	27
San Francisco	1,013.9	−0.3	1,019	29	1,008	22
Mazatlan	1,011.4	+0.2	1,014	21	1,008	14
Honolulu	1,015.6	−1.0	1,019	1	1,012	31
Midway Island	1,020.6	+1.0	1,023	7, 8	1,016	25
Guam	1,008.9	−1.6	1,012	13	1,003	31
Manila [2]	1,007.9	+0.8	1,011	10	1,001	3
Hong Kong	1,003.4	−0.7	1,009	31	996	5
Naha	(1)	(1)	(1)	(1)	(1)	(1)
Titijima	(1)	(1)	(1)	(1)	(1)	(1)
Petropavlovsk	(3)	(3)	(3)	(3)	(3)	(3)

[1] Insufficient data.
[2] For 18 days.
[3] No data.

NOTE.—Data based on 1 daily observation only, except those for Juneau, Tatoosh Island, San Francisco, and Honolulu, which are based on 2 observations. Departures are computed from best available normals related to time of observations.

Extratropical cyclones and gales.—A few disturbances of no great energy crossed northern waters of the Pacific, and very few gales resulting from their activities were indicated in ships' reports. The period 14th to 18th was the only one in which locally fresh to strong gales occurred well out at sea. During this time gales of force 9 were reported near 39° N., 179° W., on the 14th, and near 42° N., 152° W., on the 15th. On the 18th a force-8 gale occurred near 51° N., 149° W. On the 16th a cyclone of some depth was centered near Kodiak Island.

Local gales of force 8 to 9 were experienced not far from the California coast on the 8th and 24th.

Tropical cyclones.—Subjoined is a report by the Reverend Bernard F. Doucette, S. J., Weather Bureau, Manila, P. I., on five typhoons and one depression which occurred in waters of the Far East during July.

Little is known of the actual wind intensity of these cyclones throughout their courses, but in the earliest, that of June 29–July 6, a vessel reported an east gale of force 10, on July 1, east of the Philippines. In the cyclone of July 23–29, a vessel reported a southeasterly gale of force 8, barometer 997.3 millibars (29.45 inches), on the 25th, near 24½° N., 138½° E.

West of Mexico, observations point to the existence of at least three, and perhaps four or five, tropical cyclones in July. The earliest came under specific observation on the 3d, with two vessels reporting westerly gales of force 9 near 18° N., 119° W., lowest barometer 995.9 millibars (29.41 inches). The course of the storm may have been toward the Mexican coast south of Cape Corrientes, for during the early morning of the 6th there were further reports of fresh to strong shifting gales and low barometer near 16° N., 109° to 110° W. Since, however, the same two vessels that left the storm area on the 3d ran into the succeeding storm area on the 6th, some 9° to the eastward, and without intervening disturbed conditions noted, it is quite probable that the two occurrences represent two distinct cyclonic formations of brief existence.

Heavily disturbed weather appeared on the 15th near 15° N., 105° W., where fresh northwesterly gales shifting to southwesterly winds of force 10 occurred, with barometer as low as 994.6 millibars (29.37 inches). On the 16th, near 14° N., 111° to 112° W., further southwesterly gales were encountered. There are thus indications that the cyclone of the 15th had some westerly movement. However, disturbed weather, with strong easterly winds, was experienced on the 18th at some distance west of Cape San Lucas. On the 21st, also, heavy north gales shifting to easterly, with considerable depression of the barometer were reported near 13° N., 117° to 118° W. The relationship between these several isolated storm conditions observed is confused.

Fog.—Fog is usually at its height on the northwestern Pacific in July. During the current month, owing to reduced ships' observations, a sharp lessening of fog occurrence is noticeable for the area southwest of the Aleutian Islands. Between 35° and 45° N., west of the 180th meridian, fog was reported on 1 to 3 days in most of the 5° areas. In the eastern part of the Bering Sea fog was noted on 4 days, and in the Gulf of Alaska on 9 days. In the general area 32° to 45° N., 130° to 145° W., fog was observed on 9 days. Along the American coast 16 days were reported with fog in or near the Strait of Juan de Fuca. Ships noted fog on 3 days off Oregon, on 14 days off California, and on 6 days off Lower California. In the tropical ocean region 15° to 20° N., 112° to 118° W., there was fog on the 4th, 5th, and 9th.

TYPHOONS AND DEPRESSIONS OVER THE FAR EAST

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Typhoon, June 29–July 6, 1941.—When the preceding typhoon (June 23–July 4) was over the China Sea, a new typhoon began to manifest itself about 350 miles south of Guam, appearing as a depression. It moved northwest, then west, and intensified to typhoon strength during the afternoon hours of July 1 when the center was about 400 miles east of San Bernardino Strait. It became a threat to central and northern Luzon, but did not affect Catanduanes Island as the previous typhoon did. Moving west-northwest and then northwest, it crossed northern Luzon July 3 and 4, passing north of Palanan, Isabela Pr., south of Aparri and north of Tuguegarao, both in Cagayan Pr., and then north of Laoag, Ilocos Norte Pr., as it passed into the China Sea. This course is almost the same as that followed by the typhoon of June 23–July 4. It moved along a west-northwesterly course over the China Sea, inclining to the northwest as it approached the Continent. After passing inland about 75 miles northeast of Hong Kong it disappeared, July 6, over the regions north of the colony. The storm was not as intense as the previous typhoon and the reports of destruction printed in the newspapers were not startling. The writer did not read of any loss of life due to this storm.