OCEAN GALES AND STORMS, AUGUST 1934

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Direction and highest force of wind	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN			° ′	° ′				*Inches*					
Coronado, Br. S. S.	Bristol	Bermuda	50 03 N.	8 50 W.	Aug. 1	5p, Aug. 1	Aug. 1	29.23	SSW	SW, 7	SW	SSW, 8	SSW-W-NW.
Quaker City, Am. S. S.	Halifax	London	[1]49 15 N.	41 26 W.	Aug. 15	6a, 15	Aug. 15	29.67	SSE	SSE, 8	SW	SSE, 8	6 points.
Argosy, Am. S. S.	Copenhagen	Baltimore	54 05 N.	37 20 W.	do	8p, 15	Aug. 16	[2]29.27	ESE	SW, 8	W	W, 9	ESE-SW-W.
Heddernheim, Ger. S. S.	Antwerp	Montreal	53 21 N.	31 19 W.	do	Mdt, 15	do	29.61	SSW	SSW, 8	W	SW, 9	SSW-SW.
Bockenheim, Ger. S. S.	Tampa	Rotterdam	46 50 N.	35 20 W.	Aug. 16	10p. 16	Aug. 18	29.62	S	S, 8	NW	NW, 9	S-SW.
Ivar, Dan. S. S.	Swansea	Montreal	53 50 N.	23 10 W.	Aug. 17	7p, 17	do	29.34	S	S, 6	W	WSW, 10	S-WSW.
Cameronia, Br. S. S.	Boston	Moville	53 19 N.	29 25 W.	do	Mdt, 17	do	28.78	SW	W, 10	WNW	SW, 10	SW-WNW.
Capulin, Am. S. S.	Dundee	Boston	57 40 N.	28 20 W.	do	3a, 18	do	28.76	SE	NNW, 9	W	W, 10	NE-NNW-WNW.
Badjestan, Br. S. S.	Dunstan, England.	Montreal	58 50 N.	20 29 W.	Aug. 18	4p, 18	do	29.00	SSE	S, 8	SW	S, 8	S-SW.
Statendam, Du. S. S.	New York	Rotterdam	46 17 N.	38 20 W.	do	8p, 18	do	29.51	NE	NNE, 8	N	NNE, 10	NNE-N.
Duivendrecht, Du. M. S.	New Orleans	Hamburg	[1]48 47 N.	25 50 W.	do	9a, 19	Aug. 19	29.30	S	SSW, 10	NNW	NNW, 10	S-NNW.
Washington, Am. S. S.	Cobh	New York	50 02 N.	26 00 W.	Aug. 19	9a, 19	Aug. 20	29.40	SSE	S, 8	W	N, 10	SE-S-N.
Bockenheim, Ger. S. S.	Tampa	Rotterdam	49 20 N.	19 25 W.	do	3p, 19	Aug. 19	29.23	S	NW, 12	NW	NW, 12	S-NW.
Bremen, Ger. S. S.	Cherbourg	New York	49 49 N.	16 30 W.	do	5p, 19	Aug. 20	29.29	SW	SW, 10	WSW	WNW, 12	SW-WNW.
West Eldara, Am. S. S.	Rotterdam	Boston	50 47 N.	18 00 W.	do	6p, 19	do	29.16	S	NW, 11	W	NW, 11	SSE-NW.
Dakotian, Br. S. S.	Antwerp	New York	50 23 N.	15 50 W.	do	6p, 19	do	29.29	SW	SW, 9	W	NW, 9	SW-NW-W.
West Harshaw, Am. S. S.	New Orleans	Liverpool	50 48 N.	13 50 W.	do	8p, 19	do	29.46	S	S, 10	WNW	W, 10	Steady.
Boston City, Br. S. S.	Fowey, England.	Philadelphia	49 55 N.	10 06 W.	do	Mdt, 19	do	29.64	SSW	WSW, 9	W	SW, 10	SSW-W.
General von Steuben, Ger. S. S.	Galway	New York	53 12 N.	13 18 W.	Aug. 20	2a, 20	do	29.11	ESE	NNW, 10	SW	NNW, 10	ESE-N-SW.
Volendam, Du. S. S.	Rotterdam	do	50 48 N.	18 01 W.	do	3a, 21	Aug. 21	29.38	W	SW, 8	W	SW, 8	SW-W.
Dominica, Br. S. S.	Antigua	Montserrat	16 42 N.	62 14 W.	Aug. 21	6p, 21	do	29.84	SE	SE, 7	SSE	SE, 7	SE-SSE.
West Eldara, Am. S. S.	Rotterdam	Boston	48 50 N.	42 12 W.	Aug. 24	7p, 24	Aug. 25	29.18	ENE	NNW, 11	NW	NNW, 11	ENE-NNW-NW.
Paris, Fr. S. S.	Havre	New York	49 22 N.	34 43 W.	Aug. 25	10a, 25	do	28.89	NW	W, 6	WNW	NW, 9	SSW-W-NW.
Boston City, Br. S. S.	Fowey, England.	Philadelphia	49 39 N.	33 38 W.	do	3p, 25	Aug. 26	28.88	N	NE, 3	NW	NW, 9	E-NE-N.
Black Tern, Am. S. S.	Rotterdam	New York	49 24 N.	21 53 W.	Aug. 26	1p, 26	Aug. 27	29.41	SW	W, 7	W	W, 8	SW-W.
Dirigo, Am. S. S.	Port Arthur	New Orleans	28 36 N.	92 20 W.	do	6p, 26	Aug. 26	29.54	SE	ENE, 5	SSE	SE, 9	ENE-SE.
Sapinero, Am. S. S.	Tampico	Galveston	26 09 N.	96 05 W.	Aug. 29	3p, 29	Aug. 29	29.78	NW	WNW, 7	NW	NW, 8	W-NW-N.
Princeton, Am. S. S.	Caripeto, Venez.	New York	29 52 N.	68 18 W.	Aug. 31	8a, 30	Aug. 31	29.88	NE	SSW, 6	NE	NE, 8	SSW-N.
NORTH PACIFIC OCEAN													
Hanover, Am. S. S.	Manapela, P. I.	Los Angeles	22 52 N.	141 24 E.	Aug. 3	2p, Aug. 4	Aug. 5	29.55	NE	E, 7	SE	ENE, 7	ENE-E-SE.
Chichibu Maru, Jap. M. S.	Yokohama	Honolulu	34 30 N.	153 50 E.	Aug. 18	9p, 18	Aug. 19	29.15	NE	SE, 10	S	S, 10	SE-S.
Kiyo Maru, Jap. S. S.	Tokuyama	Los Angeles	38 01 N.	147 53 E.	Aug. 19	10p, 19	do	29.31	WNW	WNW, 7	WNW	WNW, 10	
Kwansai Maru, Jap. M. S.	Yokohama	do	39 30 N.	150 20 E.	do	8p, 19	Aug. 20	28.99	W	SW, 7	NW	NW, 8	6 points.
California, Am. S. S.	Balboa	San Diego	14 47 N.	96 47 W.	Aug. 20	4p, 20	do	29.84	N	NNE, 2	N	N, 7	
Arthur J. Baldwin, Am. S. S.	Seattle	Dutch Harbor	54 30 N.	156 05 W.	Aug. 22	1a, 23	Aug. 22	29.97	SSW	W, 4	S	S, 10	S-W.

[1] Position approximate.

[2] Barometer uncorrected.

NORTH PACIFIC OCEAN, AUGUST 1934

By WILLIS E. HURD

Atmospheric pressure.—Average pressures for the American Pacific coastal region and adjacent islands were above normal in August 1934. The departures ranged between +.05 at San Francisco and +.17 at Kodiak. Abnormally high average pressures for the month were also recorded at the Nansei and Ogasawara Islands, in Asiatic waters. Pressures below normal were indicated at Manila, Guam, and Midway Island.

The Aleutian cyclone appeared as a comparatively shallow development over the Bering Sea. Anticyclonic conditions were strongly marked over most of the eastern half of the North Pacific. In the extreme western Pacific very little high-pressure movement occurred south of the 40th parallel.

TABLE 1.—*Averages, departures, and extremes of atmospheric pressure at sea level, North Pacific Ocean, August 1934 at selected stations*

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	*Inch*	*Inches*		*Inches*	
Point Barrow	30.06	+0.17	30.46	21	29.64	30
Dutch Harbor	29.95	+.09	30.30	9	29.40	29
St. Paul	29.90	+.12	30.26	10	29.40	30
Kodiak	30.03	+.17	30.26	28	29.68	30
Juneau	30.12	+.10	30.39	20	29.70	1
Totoosh Island	30.09	+.09	30.30	7	29.87	2
San Francisco	29.97	+.05	30.08	5	29.77	18
Mazatlan	29.90	+.06	30.00	20	29.82	30
Honolulu	30.01	.00	30.11	2	29.89	31
Midway Island	30.03	−.05	30.24	5	29.74	20
Guam	29.81	−.01	29.90	26	29.70	2
Manila	29.76	−.04	29.88	27	29.68	6, 7
Hong Kong	29.72		29.85	28	29.61	8
Naha	29.79	+.10	29.96	15	28.76	6
Chichishima	29.89	+.13	30.06	7	29.68	17
Nemuro	29.84		30.22	1	29.48	24

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 observation.

Cyclones and gales.—Quiet summer weather prevailed over most of the North Pacific Ocean throughout August. The few extra-tropical cyclones of the month ran mostly in high latitudes and were of a mild type. Only 1 high-latitude gale was reported; that was of force 8 and was experienced at some distance southeast of the Peninsula of Alaska on the 22d.

Typhoons.—The situation with respect to typhoons this month is rather obscure, but it is evident that two or three tropical storms occurred in the southwestern North Pacific, in addition to that mentioned in Father Doucette's accompanying paper as appearing in the South China Sea.

The Tokyo weather charts show two typhoons as forming simultaneously on the 1st of August—one near Yap; the other over the southern Marianas. In connection with the easternmost of these storm centers, there is the report of the American S. S. *Hanover* that an east gale of force 7, barometer 29.55 inches, was experienced on the 4th near 23° N., 141° E. In their northward movement, these centers appear to have coalesced on the 5th to the southeastward of the Nansei Islands. On the 6th the resultant typhoon crossed the Nanseis, where an observation from Naha gave an east wind of force 8 and a barometer reading of 28.76 inches. On the 7th and 8th the center moved westward, then northward across the Yellow Sea, accompanied by gales of at least force 9, as indicated by the Tokyo maps, and by a pressure fall to 28.50 inches, on the 7th, in 29° N., 125° E. On the 10th or 11th the typhoon was last observed as a shallow depression in the Japan Sea.

A cyclonic development that lay southeast, then east, of Honshu, Japan, on the 18th and 19th, caused stormy weather between the island and approximately longitude 160° E. Gales of force 10 were reported by ships on both days, and on the 19th a barometer fall to 28.99 inches was recorded near 40° N., 150° E. This storm appears to have been first experienced as a well developed cyclone on the 16th, near 25° N., 153° E., whence it progressed northward and on the 21st crossed the Kuril Islands into the Okhotsk Sea.

Fog.—Along the American coast 1 day with fog was reported off Lower California; 8 days, off California; and 5 days, off Oregon and Washington. During the night of the 9th the British S. S. *Northholm* ran aground in dense fog near Ocean Falls, British Columbia, but was refloated, with slight damage, on the 10th. The great fog belt of the month lay mostly north of the 40th parallel to the westward of the 150th meridian of west longitude, with 10 percent to 30 percent or more of days of occurrence. The area of maximum frequency lay between the Kuril Islands and 170° E.

As an evidence of the possibilities of fogginess attending trans-Pacific passages this month, it is of some interest to cite the following notations: The American S. S. *Potter* ran in mostly dense fog from the 3d to the 8th, between 43° N., 167° E., and 45° N., 157° W. The Danish M. S. *Anna Maersk* reported dense fog from the 8th to the 14th, between 43° N., 166° W., and 38½° N., 150° E. The American S. S. *President Jefferson* encountered fog daily from the 8th, near 53° N., 157° W., until the 16th when near the east coast of central Japan.

TYPHOONS IN THE FAR EAST, AUGUST 1934

BERNARD F. DOUCETTE, S. J.

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Three typhoons occurred in the Pacific Ocean, and one in the Gulf of Tong King, during August 1934.

On July 30 and 31, a depression or typhoon passed south of Guam on a NW. course and was located August 1 near longitude 140° E., latitude 14° N. Moving WNW. for two days, it changed its direction August 3 (longitude 130° E., latitude 16° 30′ N.) to the NW. It was thought that the center was near longitude 126° 30′ E., latitude 18° N. on August 5. No trace of the typhoon could be found the next day because of the proximity of the larger typhoon which followed it across the Pacific.

From longitude 149° E., latitude 16° N., a typhoon moved, August 1 and 2, NW. to longitude 145° E., latitude 17° 30′ N. The next two days it moved W., changing to a NW. course on August 4 at longitude 139° E., latitude 17° 30′ N. August 6 found it at longitude 131° E., latitude 22° N., and the next day at longitude 128° E., latitude 28° N., close to and NNE. of Naha. It began to recurve at longitude 123° 30′ E., latitude 30° 30′ N., August 8, taking a northerly course and then inclining to the NE., crossing Korea August 10. On August 11 it was almost across the Sea of Japan, and on August 12 it was in the Pacific Ocean close to longitude 145° E., latitude 41° N., moving E.

A depression appeared on August 24, 6 a. m. close to the southern coast of Hainan. It moved NW. and the next day found it a well-developed typhoon very close to and west of Phulien. It continued on its NW. course, but no trace of it was found on the weather map of the next day.

The S. S. *Bengalen*, en route from San Francisco to Manila, passed close to and south of a typhoon located, from the observations taken on board, at longitude 153° E., latitude 25° N., August 16th, and at longitude 155° E., latitude 26° N., August 17. The lowest reading of the barometer, made 9 p. m., August 16, was 739.8 millimeters (29.13 inches). At the present writing, data for determining the origin and entire course of this typhoon are not available.