

WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

Taking the ocean as a whole, there was a marked decrease in the severity of the weather during May as compared with the previous month. The gales were comparatively evenly distributed over the different sections, but were not reported on more than 3 days in any 5° square, and in few instances was the wind force as high as 10. The total number of storm reports received was also considerably less than usual.

The most unusual feature was the disturbance that first appeared in the western part of the Gulf of Mexico on the 29th, that will be referred to later.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian). North Atlantic Ocean, May, 1930

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
	<i>Inches</i>	<i>Inch</i>	<i>Inches</i>		<i>Inches</i>	
Belle Isle, Newfoundland.....	29.88	1-0.06	30.46	25th	29.30	13th.
Halifax, Nova Scotia.....	29.92	1-0.05	30.34	12th	29.46	4th.
Nantucket.....	29.96	1-0.03	30.33	12th	29.72	4th. ¹
Hatteras.....	30.07	1+0.04	30.26	12th	29.70	15th. ¹
Key West.....	30.01	1+0.03	30.16	20th	29.73	30th.
New Orleans.....	30.04	1+0.04	30.26	20th	29.80	30th.
Cape Gracias, Nicaragua.....	29.90	1+0.00	29.98	13th ²	29.84	30th.
Turks Island.....	30.08	1+0.08	30.22	19th ²	30.00	1st.
Bermuda.....	30.12	1+0.01	30.32	17th ²	29.90	4th. ²
Horta, Azores.....	30.14	1+0.13	30.46	24th ²	29.86	21st.
Lerwick, Shetland Islands.....	29.90	1+0.10	30.35	23d	29.14	18th.
Valencia, Ireland.....	29.99	1+0.04	30.28	20th ²	29.58	10th.
London.....	29.97	1+0.05	30.23	19th	29.49	11th.

¹ From normals shown on Hydrographic Office pilot charts, based on observations at Greenwich mean noon, or 7 a. m., seventy-fifth meridian time.
² From normals based on 8 a. m. observations.
³ And on other date or dates.

As is usually the case during a month of moderate weather, fog was very prevalent over a large section of the ocean. The number of days on which it was reported in different localities is as follows: Along the

American coast between the thirty-fifth and fiftieth parallels, from 6 to 11 days; over the Grand Banks, from 14 to 20 days; over the middle section of the steamer lanes, from 3 to 7 days; along the European coast, from 2 to 4 days; in the Straits of Gibraltar, 4 days.

Charts VIII to XI cover the period from the 1st to 4th inclusive, and show the disturbance over the middle and eastern sections of the steamer lanes.

During the first 12 days of the month the North Atlantic HIGH was unusually well developed, reaching its maximum on the 11th, with a barometric reading of 30.42 inches at Horta. From the 5th to 10th the Maritime Provinces were covered by an area of low pressure, and on the 8th moderate southerly gales were reported by vessels between the fortieth and fiftieth parallels and the thirty-fifth and forty-fifth meridians.

From the 11th to 19th low pressure was general off the coast of northern Europe, and on the 11th westerly gales occurred in the southerly quadrants, while on the 18th a well-developed disturbance of limited extent was central near Lerwick, with moderate to strong westerly to northwesterly gales over the area between the British coast and fifteenth meridian.

On the 20th a moderate depression was central near 40° N., 43° W., and from the 21st to 24th very much the same conditions existed along the fortieth parallel, between the fiftieth and sixtieth meridians.

From the 25th to 29th moderate weather prevailed over the ocean generally, although on the 29th there was a LOW over the western section of the steamer lanes, and on that date a LOW was also central near Brownsville, Tex., that afterwards developed into a well-defined disturbance as it moved eastward, although of limited intensity and extent. On the 30th the center was near Tampa where the barometer read 29.66 inches; thence it moved rapidly northeastward, decreasing in intensity, and on the 31st was in the vicinity of Nantucket.

OCEAN GALES AND STORMS, MAY, 1930

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	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
Ala, Am. S. S.	Antwerp	New York	48 45 N	31 32 W	Apr. 30	4a, May 1	May 2	29.42	SSE	W, —	W	WSW, 10	SW-W.
Hellig Olav, Dan. S. S.	Oslo	Halifax	54 25 N	26 21 W	May 3	6 a, 4	May 4	29.95	ESE	NW, 9	NW	NW, 9	SE-S-W-NW.
American Shipper, Am. S. S.	London	New York	44 40 N	39 00 W	May 8	4 a, 8	May 8	29.32	SW	S, 9	SW	S, 9	S-SW.
Cottico, Du. S. S.	Amsterdam	do	49 15 N	3 30 W	May 11	4 a, 11	May 11	29.65	WSW	SSW, —	W	W, 8	SW-W.
Wytheville, Am. S. S.	Antwerp	do	47 30 N	34 44 W	May 11	1 a, 12	May 14	29.43	SW	W, 4	WNW	SW, 9	SW-W-NW.
Cyrus Field, Br. S. S.	Halifax	Cable repairs	47 40 N	53 47 W	May 12	6 a, 13	May 13	29.36	WSW	SW, 7	SW	SW, 9	—
Sarcouxie, Am. S. S.	New York	Havre	47 05 N	37 17 W	May 13	4 a, 14	May 14	29.85	SW	WSW, —	WSW	WSW, 8	Steady.
Jean Jadot, Belg. S. S.	Antwerp	New York	49 00 N	24 40 W	May 14	3 p, 14	May 14	29.73	WSW	WSW, 8	W	WSW, 8	—
Mount Evans, Am. S. S.	New Orleans	London	39 28 N	63 50 W	May 15	7 p, 15	May 16	29.96	S	S, 7	SW	SW, 8	S-SW.
Exporter, Am. S. S.	Lisbon	New York	40 48 N	28 30 W	May 17	9 p, 17	May 17	29.77	N	N, 10	NE	—, 10	SW-W-N.
Quaker City, Am. S. S.	Dundee	Philadelphia	53 35 N	2 29 W	May 18	3 a, 18	May 19	29.24	SW	SW, 8	W	W, 9	—
Iowan, Am. S. S.	Canal Zone	New York	14 25 N	5 18 W	May 18	Noon, 18	May 18	29.98	NE	ENE, 8	ENE	ENE, 8	NE-ENE.
Pres. Van Buren, Am. S. S.	Marseille	do	41 17 N	33 43 W	May 20	11 p, 20	May 21	29.61	SW	SW, —	WNW	SW, 10	SW-W.
City of Alton, Am. S. S.	Rotterdam	do	41 31 N	60 15 W	May 21	Noon, 21	May 22	29.72	W	W, 7	NW	NW, 8	W-WNW.
Excellency, Am. S. S.	New York	Casa Blanca	39 50 N	48 37 W	May 24	Noon, 24	May 25	29.80	SE	SE, 8	SW	SE, 8	SE-S.
Europa, Ger. S. S.	English Channel	New York	41 42 N	50 17 W	May 26	7 p, 26	May 26	29.65	SW	WSW, —	W	WSW, 8	SW-W.
New York, Ger. S. S.	Cherbourg	do	41 48 N	67 20 W	May 29	3 p, 29	May 29	29.35	S	W, —	NW	SW, 8	S-W-NW.
Commercial Bostonian, Am. S. S.	Mobile	Boston	27 00 N	85 10 W	May 29	8 p, 29	May 30	29.62	SE	SE, —	—	—, 8	SE-S-SW.
Tuscaloosa City, Am. S. S.	Canal Zone	New York	29 00 N	79 00 W	May 30	4 p, 30	May 31	29.65	SSW	SW, 6	NNE	NNE, 8	SW-NNE.
Abercos, Am. S. S.	Galveston	Liverpool	39 00 N	63 28 W	May 30	8 p, 30	May 31	29.75	SSW	SSW, 7	SSW	SSW, 10	Steady.
Savoia, Ital. S. S.	Genoa	New York	38 26 N	60 40 W	May 31	4 p, 31	June 1	29.56	SW	SW, 10	SW	SW, 10	SW-NW.
NORTH PACIFIC OCEAN													
Silverbelle, Br. M. S.	San Francisco	Yokohama	43 11 N	176 53 W	May 1	Noon, 1	May 1	29.88	SSE	SSE, 8	WNW	SSE, 9	Steady.
Mojave, Am. S. S.	San Pedro	do	30 24 N	164 50 E	May 2	10 a.m., 2	May 3	29.92	N	SW, 5	ENE	N, 9	SW-N.
Somedono Maru, Jap. S. S.	Yokohama	Coos Bay	37 39 N	144 31 E	May 2	4 a.m., 3	May 3	29.60	SSE	S, 9	NW	WNW, 9	S-SW-WNW.

Ocean gales and storms, May, 1930—Continued

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	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH PACIFIC OCEAN—continued													
Pres. McKinley, Am. S. S.	Victoria	Yokohama	52 49 N	160 35 W	May 4	8 p.m., 7	May 8	Inches	W	SSE, 2	NW	NW, 8	W-SSE-WNW-N.
Waitemata, Br. S. S.	Suva	Vancouver	44 26 N	131 48 W	May 6	4 p.m., 6	May 7	30.16	NW	NW, 9	NW	NW, 9	WNW-NNW-WNW
Mojave, Am. S. S.	San Pedro	Yokohama	33 40 N	144 06 E	May 6	Mdt., 6	May 6	29.75	SW	SSW, 7	SSW	SW, 8	SW-SSW-SW.
Admiral Watson, Am. S. S.	Seattle	Kodiak	59 12 N	147 40 W	May 7	—, 8	—, 8	29.80	E	E, 5	—	E, 8	E-SE-S-SW.
Los Alamos, Am. M. S.	San Francisco	Portland, Oreg	38 31 N	123 45 W	May 7	4 a.m., 8	May 9	29.93	NW	NNW, 7	NNW	—, 8	WNW-NW-NNW.
Havre Maru, Jap. S. S.	Kobe	San Francisco	49 30 N	172 20 E	May 8	10 a.m., 9	May 9	29.23	ESE	E, 9	SW	E, 9	—
Koyo Maru, Jap. S. S.	Yokohama	Grays Harbor	44 28 N	160 15 E	May 10	8 p.m., 11	May 13	29.37	ESE	SW, 6	NE	ESE, 8	ESE-SSW-NE.
Tecumseh, Br. S. S.	—do	San Pedro	44 19 N	165 48 E	May 18	6 p.m., 18	May 19	29.40	SSE	SSW, 8	W	WSW, 8	S-SSW-SW.
Shikisan Maru, Jap. M. S.	Portland, Oreg	Yokohama	49 41 N	173 19 E	May 19	3 a.m., 20	May 20	29.36	SW	WSW, 8	SW	W, 9	SW-W-S-SW.
Tecumseh, Br. S. S.	Yokohama	San Francisco	46 15 N	178 52 E	May 20	Mdt., 20	May 20	30.05	SW	SW, 8	WSW	SW, 8	Steady.
Golden Dragon, Am. S. S.	San Francisco	Shanghai	42 45 N	147 48 E	May 20	—do	May 20	29.12	S	S, 8	WSW	S, 9	SSE-S.
Makiki, Am. S. S.	Hilo	San Francisco	37 09 N	124 26 W	May 21	Mdt., 21	May 22	30.15	NW	NW, 8	NW	—, 8	Steady.
Mojave, Am. S. S.	Kobe	San Pedro	46 48 N	156 35 W	May 22	4 a.m., 24	May 24	29.62	S	SSE, 7	SE	SSE, 10	Do.
Tecumseh, Br. S. S.	Yokohama	San Francisco	46 16 N	155 43 W	May 23	6 a.m., 24	May 24	29.50	SSE	S, 7	S	SSE, 9	Do.
Pres. Grant, Am. S. S.	Seattle	Yokohama	49 10 N	169 58 E	May 24	4 p.m., 25	May 26	—	SE	SSW, 9	W	—, 10	SE-S-W.
Wilhelmina, Am. S. S.	—do	Honolulu	37 50 N	141 25 W	May 25	6 a.m., 26	May 27	29.70	SE	SSW, 6	NW	SSW, 8	SE-S-SW-NW.
Golden Star, Am. S. S.	Shanghai	San Francisco	49 17 N	135 57 W	May 28	9 p.m., 28	May 28	29.67	SSW	SSW, 7	SW	SSW, 10	Steady.
San Pedro Maru, Jap. M. S.	Tokuyawa	—do	43 00 N	176 25 W	May 27	2 a.m., 28	May 29	29.20	E	W, 2	W	WNW, 8	NE-SW-WNW.
Grays Harbor, Am. S. S.	Tacoma	Yokohama	51 48 N	168 18 W	May 28	1 a.m., 29	May 29	28.90	E	NE, 4	NW	E, 8	E-NE.
Akagisan Maru, Jap. M. S.	Yokohama	San Francisco	47 39 N	175 32 W	May 30	6 p.m., 30	June 1	29.03	SW	SW, 7	WSW	WSW, 8	SW-WSW.

NORTH PACIFIC OCEAN

By F. G. TINGLEY

The average pressure during May throughout the region embracing the Aleutian Islands and Gulf of Alaska showed only a slight change from the preceding months of March and April. With the advance of the season pressure in the Aleutian area normally rises, the change from December to June, using the records at Dutch Harbor as a basis of comparison, amounting to 0.40 inch, the pressure values for the months named being, respectively, 29.58 and 29.98 inches. During the month under consideration pressure in this region actually fell slightly instead of rising. The average values at Dutch Harbor, St. Paul, and Kodiak were, respectively, 29.60, 29.61, and 29.77 inches as compared with corresponding April values of 29.81, 29.76, and 29.72 inches. At the same time pressures at Midway Island, Honolulu, and Juneau were slightly higher than in April, contributing further to the steepness of the barometric gradient throughout this extensive region. The pressure values of these and other island and coast stations are given in the accompanying table.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, at indicated hours, North Pacific Ocean and adjacent waters, May, 1930

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Point Barrow ¹	29.98	—	30.44	11th ⁶	29.70	5th.
Dutch Harbor ²	29.60	-0.30	30.16	21st	29.02	29th.
St. Paul ³	29.61	-0.25	30.08	21st	29.30	14th. ⁵
Kodiak ⁴	29.77	-0.10	30.30	11th	29.12	4th. ⁵
Midway Island ⁵	30.19	+0.10	30.30	17th ⁶	30.06	14th. ⁵
Honolulu ⁴	30.09	+0.04	30.16	3d	30.02	22d. ⁶
Juneau ⁴	29.96	-0.03	30.30	25th	29.58	16th. ⁵
Tatoosh Island ⁴	30.02	-0.02	30.45	22d	29.57	20th.
San Francisco ⁴	29.99	+0.01	30.27	21st	29.64	4th.
San Diego ⁴	29.96	+0.03	30.09	9th	29.77	4th.

¹ For 26 days. ⁴ A. m. and p. m. observations.
² For 30 days. ⁵ Corrected to 24-hour mean.
³ P. m. observations only. ⁶ And on other date or dates.

The North Pacific HIGH was fairly well developed throughout the month, and moderately high pressure extended from the coast of North America westward to midocean.

Notwithstanding the more pronounced pressure distribution just described the weather of the North Pacific during May was relatively quiet and very favorable to shipping. Few gales were experienced, chiefly of forces 8 and 9. On only three occasions during the month were winds of force 10 reported. These occurrences were on the 23d, 25th, and 26th, in widely separated regions. The amount of fog appears to have been less than usual for the season. Two tropical storms have been reported, one, a typhoon in the Philippines, described in the subjoined article by the Rev. José Coronas, S. J., chief of the meteorological division of the Philippine Weather Bureau.

The accentuation of the Aleutian LOW at this late date gave rise to considerable rain and some snow over the central portion of the northern steamship routes.

The month opened with the North Pacific HIGH well developed, having a central isobar of 30.50 inches embracing the region from 35° to 40° N. latitude, 145° to 155° W. longitude. There was a minor depression over Bering Sea. This general arrangement of pressure continued for several days, the HIGH being reinforced from the westward and the depression to the northward increasing in intensity and moving eastward over Alaska. With the passage of the latter an anticyclone advanced south-eastward over the Continent and from the 7th to the 9th high pressure bridged the region between this anticyclone and that over the Pacific. During the ensuing week high pressure areas continued to advance southward over the continent and the connection between the continental and oceanic HIGHS was for the most part maintained. The oceanic HIGH was steadily reinforced on its western side.

From the 15th to the 20th a belt of low pressure was established between the Aleutian LOW and the American mainland along which depressions of varying magnitude were irregularly distributed. About the 23d a break