

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

[The Marine Division, I. R. TANNEHILL in charge]

NORTH ATLANTIC OCEAN, FEBRUARY 1938

By H. C. HUNTER

*Atmospheric pressure.*—Several unusual features were noted in the distribution of pressure during February 1938. Substantially all the North Atlantic area north of the thirtieth parallel had average pressure greater than normal. There was one marked exception; around the Azores, near the normal position of the center of the North Atlantic HIGH, pressure averaged about one-eighth of an inch lower than normal. This was entirely the result of persistent low pressure during the period from the 13th to the 25th. On the 21st 28.86 inches was recorded at Horta, an exceptionally low barometer reading for that station; 2 days later the Italian motorship *Vulcania* reported 28.38 inches about 400 miles west of Horta.

Near the British Isles and northwestward to Iceland pressure averaged much greater than normal, owing chiefly to high barometer most of the time from the 10th to 23d, inclusive. The maximum readings here were about 30.8 inches.

There was a comparatively brief period of even greater pressure in the region of Nova Scotia and the Gulf of St. Lawrence where, on the 2d and 3d, several shore stations reported the pressure as almost 31 inches.

The various stations along the North American coast reported pressure for the month averaging usually from one-tenth to three-tenths inch above normal, the greatest departure being found at the northern tip of Newfoundland. For the most part the highest readings in this section of the Atlantic occurred early in the month, and the lowest near the end.

The extremes of pressure found in vessel reports at hand are 30.90 and 28.11 inches. The former reading was noted near the southeastern coast of Newfoundland during the forenoon of the 3d by the American steamship *Cliffwood*. However, at the land station at Halifax, Nova Scotia, there was on that day a reading higher by 0.08 inch, as table 1 shows. The low reading was reported by radio from an unidentified vessel, not far to westward of the Orkney Islands, on the forenoon of the 1st.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, February 1938

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
	<i>Inches</i>	<i>Inch</i>	<i>Inches</i>		<i>Inches</i>	
Julianehaab, Greenland.....	29.58	+0.05	30.28	17	28.98	2
Reykjavik, Iceland.....	29.78	+ .24	30.80	19	28.62	25
Lerwick, Shetland Islands.....	30.05	+ .33	30.80	18	28.29	1
Valencia, Ireland.....	30.25	+ .35	30.74	11	29.50	26
Lisbon, Portugal.....	30.26	+ .16	30.56	28	29.92	22
Maderia.....	30.07	.00	30.41	1	29.50	19
Horta, Azores.....	30.02	- .13	30.64	1	28.86	21
Belle Isle, Newfoundland.....	30.00	+ .29	30.64	3	29.02	11
Halifax, Nova Scotia.....	30.10	+ .19	30.98	3	20.12	28
Nantucket.....	30.14	+ .10	30.83	2	29.19	28
Hatteras.....	30.22	+ .11	30.64	8	29.52	27
Bermuda.....	30.16	+ .04	30.44	9, 13	29.54	26
Turks Island.....	30.08	.00	30.19	9	29.98	25
Key West.....	30.14	+ .07	30.33	9	29.91	24
New Orleans.....	30.21	+ .12	30.46	1	29.86	18

NOTE.—All data based on a. m. observations only, with departures compiled from best available normals related to time of observation, except Hatteras, Key West, Nantucket, and New Orleans, which are 24-hour corrected means.

*Cyclones and gales.*—There was less storminess over the North Atlantic than during January 1938, and somewhat

less than the average storminess of February. However, the month included more storms of marked strength than had occurred during December 1937.

As previously stated, the lowest pressure reading of the month was noted on the first day, west of the Orkney Islands. A low of great extent and intensity was then centered between the north coast of Scotland and the Faroe Islands; shortly thereafter it moved to northeastward, losing energy, and by noon of the 3d the center was between North Cape and Spitzbergen.

A low near the Gulf of St. Lawrence on the 4th affected shipping to southward and eastward of Newfoundland on that and the 2 following days as it traveled northeastward to near western Iceland.

Mainly to the southward of the path of this storm, lay the route of another which crossed the Lake region on the 6th and was central near Newfoundland from the evening of the 7th to the morning of the 9th, after which it turned to northward and conditions improved over the Grand Banks. Chart IX shows the situation on the 7th.

From the 5th to the 9th pressure was quite high near Bermuda and, in connection with this HIGH and the normal pressure of the tropical regions to southward, many vessels near the Greater Antilles or to eastward of them encountered trade winds of more than average force.

On the 10th a low moving eastward from the continent gained great strength over and near Nova Scotia and to southward of Newfoundland, and important gales resulted on that day and the 11th eastward to about the thirty-fifth meridian along the chief steamship lanes. After the 11th the storm turned to the northward and practically all Atlantic areas experienced comparatively quiet weather until the 17th. On this day a storm of rather small area, to southeastward of Newfoundland, deepened considerably near the center, causing winds of marked force within a limited area. The American steamship *Azalea City*, bound from Pensacola to Liverpool, lost its propeller during the afternoon of the 17th, and after drifting for a considerable time was taken in tow back to Boston. Chart X presents the conditions on the 17th.

The low near Newfoundland on the 17th took a south-eastward course on the ensuing days, to reach the vicinity of the Azores by the 21st. Another low, central early on the 20th just to eastward of Delaware Bay, moved rapidly toward the Azores and merged on the 22d with the preceding low. Unusually strong winds were met by many vessels at this time near and for some distance to eastward of mid-ocean, mostly between the thirty-fourth and fortieth parallels of latitude, but in a few cases close to or south of the thirtieth. The only instance of a wind of force 12 reported this month from Atlantic waters occurred on the 22d in the northwestern quadrant of this storm area, the vessel being the American liner *President Van Buren*, bound from the Mediterranean to New York.

By the 24th it was evident that this low was moving rapidly to the northward, and on the next day it united with another low to the westward of Iceland. Stormy conditions prevailed in the middle portion of the steamship lanes to northwestern Europe while this northward movement was taking place, and afterward till the early hours of the 28th.

*Fog.*—There was practically no fog in February over the eastern half of the North Atlantic, which contrasts with the moderate amounts noted during the second half

of January to eastward and northeastward of the Azores. In the Grand Banks-St. Lawrence area there was about the same amount as during January, the 5°-square, 40° to 45° N., 45° to 50° W., having most February occurrences in this area, namely 5 days. On the whole, this area had slightly less fog than the average amount for February. To southward of Nova Scotia and near the east coast of New England, as had been the case in January, fog was very infrequent.

From Cape Cod to near Galveston, Tex., except in the vicinity of Florida, Georgia, and South Carolina, fog was considerably more frequent than normally in February. Two squares stand out conspicuously for their numerous reports. The square 35° to 40° N., 70° to 75° W., experienced fog on 9 days, well scattered through the month; while in the Gulf of Mexico the square 25° to 30° N., 90° to 95° W., had fog on no less than 12 days, almost all during the first half of the month.

OCEAN GALES AND STORMS, FEBRUARY 1938

Vessel	Voyage		Position at time of lowest barometer		Gale began February—	Time of lowest barometer February—	Gale ended February—	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									
<b>NORTH ATLANTIC OCEAN</b>													
Tennessee, Dan. S. S.	New York	Oslo	50 02 N.	41 23 W.	1	Mdt, 1...	2	30.12	SW	SW, —	W	W, 10	SW-W.
American Importer, Am. S. S.	Belfast	Boston	55 06 N.	19 07 W.	2	4p, 3...	5	29.67	W	WSW, 8	WNW	WNW, 9	SW-W.
Fairfield City, Am. S. S.	Gibraltar	do	41 30 N.	53 45 W.	4	Mdt, 4...	5	29.99	SSE	SSW, 9	N	SSW, 10	S-W.
Black Gull, Am. S. S.	Antwerp	New York	47 06 N.	40 00 W.	5	4p, 5...	6	29.65	SSW	SW, 9	WNW	SW, 10	SSW-W.
Svanhild, Dan. S. S.	Swansea	Boston	50 08 N.	38 44 W.	5	5p, 5...	6	29.41	WSW	SW, 11	NNW	SW, 11	SSW-W.
American Importer, Am. S. S.	Belfast	do	52 21 N.	34 41 W.	5	4a, 6...	7	29.31	SSW	WSW, 7	WSW	SW, 10	SSW-W.
Irisbank, Br. M. S.	Durban	do	36 39 N.	62 00 W.	7	Mdt, 7...	9	29.83	SW	SW, 10	NW	NW, 10	SSW-NW.
Saturnia, Ital. M. S.	Lisbon	New York	38 09 N.	55 00 W.	7	11a, 8...	9	29.57	S	SW, 8	NE	SW, 9	SSW-NW.
Santa Rosa, Am. S. S.	Porto Cabello	San Juan	11 30 N.	68 15 W.	9	2a, 9...	10	29.90	E	ENE, 7	NE	ENE, 8	E-NE.
Cyrus Field, Br. S. S.	Cable grounds out from Halifax	do	44 57 N.	58 34 W.	10	8p, 10...	11	29.11	NW	NW, 8	WNW	NW, 10	S-NW.
Pres. Harding, Am. S. S.	Cobh	New York	42 37 N.	54 01 W.	10	8p, 10...	11	29.22	S	S, 11	NNW	S, 11	S-W.
Arundo, Du. S. S.	Rotterdam	New Orleans	35 30 N.	38 49 W.	10	Mdt, 10...	10	29.61	SE	NW, 4	SE	SE, 10	S-NW.
Svanhild, Dan. S. S.	Swansea	Boston	45 48 N.	56 54 W.	11	11p, 11...	12	28.78	WNW	WNW, 11	NW	WNW, 11	SW-WNW.
Sagaporack, Am. S. S.	Copenhagen	Philadelphia	49 03 N.	48 46 W.	11	4p, 11...	12	29.17	SSW	SSW, 9	SW	SSW, 10	ESE-SSW.
Tahoe, U. S. C. G.	Ice patrol out from Halifax	do	44 57 N.	48 34 W.	17	4a, 18...	18	29.00	N	NNW, 10	WNW	NNW, 10	NNW-W.
American Trader, Am. S. S.	London	Boston	44 26 N.	48 43 W.	17	6a, 18...	18	28.75	NNE	WNW, 8	W	NW, 10	WNW-W.
Azalea City, Am. S. S.	Pensacola	do	42 00 N.	51 55 W.	17	10 p, 18...	18	29.15	NE	NW, 10	NNW	NW, 10	
West Kyska, Am. S. S.	Antwerp	Tampa	31 47 N.	49 07 W.	19	Noon, 19...	20	29.36	WNW	WNW, 10	NW	WNW, 10	
Dixie Arrow, Am. S. S.	Grangemouth	Magpetco	32 16 N.	46 12 W.	19	1p, 19...	19	29.30	W	WNW, 8	NW	WNW, 9	W-WNW.
Colyto, Du. S. S.	Rotterdam	Galveston	34 49 N.	42 06 W.	19	7p, 19...	20	29.15	NW	WNW, 6	WNW	NW, 9	WNW-NW.
West Tacook, Am. S. S.	Gibraltar	New Orleans	31 50 N.	35 00 W.	19	11p, 19...	20	29.13	SW	SSW, 8	WNW	WNW, 9	SSW-WNW.
Clara, Ital. S. S.	do	New York	32 20 N.	37 55 W.	20	1a, 20...	20	29.17	SW	SW, —	WNW	W, 11	SW-W.
Chateau Thierry, U. S. A. T.	Cristobal	do	37 25 N.	74 23 W.	20	Noon, 20...	20	29.47	W	W, 9	N	W, 9	W-SW.
Exminster, Am. S. S.	Gibraltar	do	35 50 N.	81 10 W.	20	6p, 20...	21	28.91	S	WSW, 5	W	W, 11	SW-WNW.
West Cohas, Am. S. S.	New Orleans	Liverpool	38 50 N.	63 00 W.	21	3a, 21...	23	29.29	NNW	NE, 9	N	NNE, 10	NNW-NE
Sundance, Am. S. S.	Savannah	London	38 10 N.	62 45 W.	21	7a, 21...	23	29.29	var	NE, 10	N	NE, 11	E-N.
Exchange, Am. S. S.	Djiddjilli	New York	35 44 N.	57 11 W.	21	Noon, 21...	21	29.31	SW	W, 8	NNE	N, 9	WSN-N.
Pres. Van Buren, Am. S. S.	Gibraltar	do	43 13 N.	47 06 W.	22	4a, 22...	23	29.28	NE	NE, 7	N	NNW, 12	NE-NNW.
Boston City, Br. S. S.	Huelva	Philadelphia	36 11 N.	35 30 W.	22	Mdt, 22...	24	28.97	WSW	SW, 10	NNW	SW, 11	WSW-SW.
Exminster, Am. S. S.	Gibraltar	New York	34 00 N.	36 34 W.	22	2a, 23...	24	29.21	W	W, 10	W	W, 10	W-WSW.
Vulcania, Ital. M. S.	Boston	Lisbon	39 17 N.	36 09 W.	23	3a, 23...	23	28.38	SSW	SW, 7	SW	SW, 10	Steady.
Victoite, Br. M. S.	Havre	Guiria	40 01 N.	32 28 W.	21	1p, 23...	24	28.68	SE	SSW, 9	SW	S, 10	SW-S.
Circe Shell, Br. M. S.	Curacao	Stockholm	27 26 N.	45 57 W.	23	4p, 23...	24	29.84	NW	WNW, 7	NW	NW, 8	
Loedrecht, Du. M. S.	do	Liverpool	36 34 N.	44 45 W.	21	5p, 23...	24	29.20	WSW	WNW, 9	NNW	NW, 10	WNW-NW.
Sarcoite, Am. S. S.	Havre	New York	45 50 N.	28 00 W.	22	6a, 24...	25	28.82	SE	SW, 10	NNW	S, 10	SE-SSW.
Dordrecht, Du. M. S.	New York	Liverpool	42 06 N.	51 00 W.	24	8p, 25...	25	29.24	SSW	SW, 5	SW	SW, 9	SW-NW.
Scottish Musician, Br. M. S.	Hamburg	Bermuda	32 08 N.	64 09 W.	25	6a, 26...	26	29.41	SW	SSW, 9	W	SSW, 9	SSW-NW.
Sundance, Am. S. S.	Savannah	London	44 05 N.	42 48 W.	25	10a, 26...	27	29.20	SW	SW, 7	W	WSW, 10	SW-WSW.
Excambion, Am. S. S.	Gibraltar	Boston	40 12 N.	47 12 W.	26	9p, 26...	26	29.51	SW	S, 5	SSW	WSW, 10	S-W.
Dordrecht, Du. M. S.	New York	Liverpool	44 50 N.	44 00 W.	26	6a, 27...	27	29.05	SE	SSW, 9	W	WSW, 10	S-WSW.
West Cohas, Am. S. S.	do	New Orleans	44 51 N.	43 00 W.	26	7a, 27...	27	29.13	SSE	SSW, 11	WNW	SSW, 11	SSW-WSW.
Washington, Am. S. S.	Cobh	New York	49 52 N.	27 04 W.	27	10p, 27...	28	29.43	S	S, 9	W	SW, 10	S-W.
Nebraskan, Am. S. S.	Cristobal	do	31 51 N.	78 01 W.	27	4a, 28...	28	29.72	W	NW, 9	WSW	NW, 9	W-NW.
<b>NORTH PACIFIC OCEAN</b>													
Kwanto Maru, Jap. M. S.	Los Angeles	Yokohama	37 56 N.	149 15 E.	* 31	Noon, 31	* 31	28.96	SE	SSW, 11	WNW	WSW, 11	S-WSW.
Marian Otis Chandler, Am. S. S.	Balboa	Honolulu	11 42 N.	94 42 W.	* 31	6p, 31	1	29.80	N	N, 4	NNE	N, 8	N-NNE.
Eclipse, Br. S. S.	Yokohama	San Francisco	42 12 N.	157 00 E.	* 31	6a, 1...	1	29.10	E	S, 11	SW	SSW, 12	SE-SSW.
Nankai Maru, Jap. M. S.	Los Angeles	Balboa	14 03 N.	95 00 W.	1	2p, 1...	1	29.85	NE	N, 7	N	N, 7	
Pres. Grant, Am. S. S.	Seattle	Yokohama	51 42 N.	143 36 W.	1	2a, 1...	2	29.41	NNW	W, 4	NNW	N, 9	W-NNE.
Navigator, Am. M. S.	Out from San Diego	do	9 20 N.	85 40 W.	* 30	6a, 2...	1	29.76	E	SW, 2	W	ENE, 8	
Djambi, Du. M. S.	Manila	Los Angeles	35 14 N.	136 16 W.	3	2p, 3...	3	29.96	WNW	NW, 8	WNW	NW, 8	None.
Lebec, Am. S. S.	Los Angeles	Manila	32 34 N.	173 40 E.	6	1a, 6...	8	29.64	W	W, 6	NW	NW, 8	S-W-NW.
Nolja Maru, Jap. M. S.	Balboa	Los Angeles	14 12 N.	94 54 W.	7	6p, 7...	7	29.90	N	N, 6	NE	NNE, 7	
Pres. Jefferson, Am. S. S.	Yokohama	Victoria, B. C.	42 06 N.	154 00 W.	7	10p, 7...	7	29.64	WSW	W, 7	WSW	WSW, 8	
Pres. Grant, Am. S. S.	Seattle	Yokohama	48 00 N.	167 08 E.	7	8p, 7...	8	29.60	SSE	SSE, 8	SSE	SSE, 8	None.
Fujisan Maru, Jap. M. S.	Los Angeles	Kure	33 10 N.	172 48 W.	8	Noon, 8...	8	29.51	S	S, 8	SSW	S, 8	S-W.
Pres. Grant, Am. S. S.	Seattle	Yokohama	42 15 N.	150 16 E.	10	4a, 10...	10	29.42	NNW	NNW, 8	NNW	NNW, 8	NNE-NNW.
Manukai, Am. S. S.	San Francisco	Honolulu	36 43 N.	128 03 W.	10	4a, 9...	10	29.35	NW	NNW, 6	NW	NW, 8	ESE-NNW.
Hikawa Maru, Jap. M. S.	Yokohama	Vancouver, B.C.	41 24 N.	153 00 E.	10	10p, 10...	12	29.40	NW	NW, 8	NW	NW, 8	
Kinai Maru, Jap. M. S.	Los Angeles	Yokohama	41 05 N.	135 00 W.	11	4p, 12...	13	29.55	W	WNW, 8	WNW	WNW, 9	None.
Hikawa Maru, Jap. M. S.	do	Vancouver, B.C.	46 42 N.	171 30 E.	13	11a, 13...	13	29.10	SE	SE, 9	N	SSE, 10	SE-SSE.
Pres. Taft, Am. S. S.	do	Honolulu	34 54 N.	140 18 E.	14	9p, 14...	16	29.18	NNW	NW, 2	N	NW, 10	
Fujisan Maru, Jap. M. S.	Los Angeles	Kure	32 40 N.	163 19 E.	15	8a, 15...	16	29.28	S	SSW, 8	NW	WSW, 9	S-WSW.
Empress of Japan, Br. S. S.	Yokohama	Honolulu	35 01 N.	143 22 E.	15	Noon, 15...	16	29.60	NNW	NW, 10	N	NW, 10	WNW-NW.
San Clemente Maru, Jap. M. S.	Los Angeles	Kure	33 09 N.	150 05 E.	15	4a, 15...	16	29.33	WSW	SSW, 7	NNW	W, 9	SSW-WSW.

\* Barometer uncorrected.

\* Position approximate.

\* March.

\* January.