

WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

[By the Marine Division, W. F. McDONALD, in charge]

NORTH ATLANTIC OCEAN

By W. F. McDONALD

The normal pressure distribution over the Atlantic was considerably disturbed during August, 1931, especially in the latter half of the month. Extensive development of the usual Atlantic high prevailed only during rather brief periods, comprising a few days at the beginning and end of the month and the interval between the 10th and 15th.

Even in this period, however, while high pressure conditions were dominant over most of the Atlantic, there was a storm development near the American coast, and the American steamship *Onondaga* encountered a gale of force 10, approaching New York from the southward on August 11. This disturbance did not show further development or progress, however, but diminished and disappeared within the next two days; but simultaneously with its disappearance there was development of a vigorous depression southeast of lower Greenland, which moved slowly southeastward deepening as it progressed. On the 13th the American steamship *Seattle Spirit*, bound from Bremen to Boston, ran into winds of gale force that culminated on the 14th in the strongest winds reported from any part of the Atlantic during the month (force 11), and this same disturbance moved over the British Isles with diminished intensity on the 17th, causing some damage by high winds and heavy rains.

A succession of slow-moving disturbances then began to cross the Atlantic, and it was not until the month was well along that the high reestablished itself over the western part of the ocean, while there remained several sharp disturbances over the eastern portion of the main steamer routes. Considering the season, an unusual number of gales was reported between the 15th and 27th, with several ships encountering winds of force 10 in the eastern Atlantic. Press reports indicated that several passenger liners were diverted or slightly delayed in making their schedules.

The average pressure situation for the month as a whole (see Table 1) reflected this concentration of low movements across mid-ocean on paths more southerly than usual, in that averages were below normal over most of the area between 30° and 50° N. latitude, and above normal in surrounding areas, with the greatest excess lying to eastward of Greenland.

August was free from serious West Indian disturbances, although two very mild depressions were noted in the Caribbean Sea in the period from the 11th to the 17th. The first of these crossed the full length of the Caribbean from east to west, moved into Yucatan on the 16th, and passed near Frontera, Mexico, on the next day when the Honduran steamship *Morazan*, lying in port at Frontera, experienced a gale of force 9, together with a wind change characteristic of the central area of a tropical disturbance.

Fogs on the north Atlantic during August were confined, so far as our reports indicate, to areas north of latitude 40. They decreased greatly as compared with the previous month, being most extensive between the Grand Banks and the vicinity of Nantucket from the 7th to the 16th, with rather extensive foginess still earlier in the month between the Grand Banks and the British Isles.

The reports indicate a great decrease in foginess after the 17th with occurrence mainly in scattered banks and patches rather than in widespread blanketing of the steamer routes. It is worthy of note that the great reduction in fog appears to have been about coincident with the appearance of the series of disturbances noted above, which marked the disruption of the normal pressure distribution over the Atlantic.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, August, 1931

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Julianehaab, Greenland 1	29.98	-----	30.32	20th	29.65	2d.
Reykjavik, Iceland 1	29.94	0.13	30.32	29th	29.36	26th.
Lerwick, Shetland Isles 1	29.95	0.15	30.36	29th	29.46	16th.
Valencia, Ireland 1	29.90	-0.02	30.42	11th	28.95	16th.
Lisbon, Portugal 1	30.06	0.04	30.36	22d	29.83	24th.
Madeira 1	30.09	0.07	30.28	30th	29.96	4th.
Horta, Azores 1	30.11	-0.09	30.31	1st	29.74	25th.
Belle Isle, Newfoundland 1	29.94	0.05	30.30	13th	29.22	1st.
Hallifax, Nova Scotia 1	30.00	-0.01	30.36	14th	29.70	10th.
Nantucket 2	30.01	0.02	30.40	14th	29.64	10th.
Hatteras 2	30.04	0.04	30.32	15th	29.74	10th.
Bermuda 1	30.13	-0.01	30.36	13th	30.00	6th.
Turks Island 1	30.10	0.06	30.14	2d	29.02	7th.
Key West 2	30.03	0.05	30.12	24th	29.92	14th.
New Orleans 2	30.06	0.08	30.25	24th	29.89	10th.

1 All data based on a. m. observations only, with departure computed from best available normals related to time of observation.
2 Corrected 24-hour means, based on more than one observation daily.

OCEAN GALES AND STORMS, AUGUST, 1931

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													
General Greene, Am. S. S.	St. Johns	Labrador	59 28 N	44 28 W	Aug. 1	11 p., 2	Aug. 2	28.00	NE	NE	N	ENE, 9	NE-N.
West Harcavar, Am. S. S.	Bremen	Boston	53 30 N	38 52 W	Aug. 2	1 a., 2	do	29.46	SSW	SW, 7	SW	SW, 8	
Baron Kelvin, Br. S. S.	Cape Town	Calais	47 25 N	5 40 W	Aug. 8	8 a., 8	Aug. 9	29.47	NW	WNW, 8	WSW	NNW, 8	NW-W-NNW.
Onondaga, Am. S. S.	Canal Zone	New York	39 37 N	73 50 W	Aug. 11	6 p., 11	Aug. 12	29.69	NNE	NNE	N	NNE, 10	
Lustrous, Br. S. S.	Houston	Hamburg	47 22 N	33 00 W	Aug. 12	10 a., 12	do		SW	SW, 7	N	SW, 8	SW-N.
Seattle Spirit, Am. S. S.	Bremen	Boston	50 20 N	20 00 W	Aug. 13	8 a., 14	Aug. 15	29.03	NW	NW, 11	NNW	NW, 11	
Ohioan, Am. S. S.	New York	Los Angeles	15 15 N	76 10 W	do	4 a., 14	Aug. 14	29.86	E	E, 9	E	E, 9	
Lustrous, Br. S. S.	Houston	Hamburg	49 17 N	15 50 W	do	Noon, 15	Aug. 17		NW	WNW, 8	SW	WSW, 9	NW-W.
Boston City, Br. S. S.	Bristol	Wilmington	51 20 N	7 26 W	Aug. 15	8 a., 16	do	29.96	S	SSW, 8	WSW	SSW, 8	SSW-WSW.
New York, Gr. S. S.	Charbourg	New York	49 45 N	12 00 W	do	4 p., 15	Aug. 15	28.85	SW	SW, 9	WNW	SW, 9	SSW-WSW.
Jason, Du. S. S.	Amsterdam	Canal Zone	47 01 N	9 19 W	do	do	Aug. 16	29.25	SW	WSW, 8	WSW	WSW, 8	WSW-WNW.
Berlin, Du. S. S.	Bremerhaven	New York	49 53 N	10 54 W	do	12 mid., 15	do	29.16	SW	SW, 8	W	—, 9	S-W.
Morazan, Hon. S. S.	New Orleans	Mexico	18 38 N	92 44 W	Aug. 17	Mid., 17	Aug. 17	29.74	NW	NW, 8	S	NW, 9	NW-S.
Statendam, Du. S. S.	New York	Rotterdam	42 16 N	49 50 W	do	2 p., 18	Aug. 18	29.52	NNW	ESE, 5	S	ENE, 8	NE-E.