

WEATHER ON THE NORTH ATLANTIC OCEAN

By H. C. HUNTER

Atmospheric pressure.—The pressure exceeded normal over most parts of the North Atlantic Ocean that are covered by reports at hand. In the vicinity of the fortieth parallel of latitude, on both west and east sides of the ocean, the excess over the average pressure was considerable.

The extremes of pressure in available vessel reports were 1036.9 and 997.8 millibars (30.62 and 29.46 inches). The highest was noted on the United States Coast Guard cutter *Duane*, during the evening of the 3d, near 41° N., 44° W. The low reading was taken on the Icelandic steamer *Dettifoss*, very late on the 23d, near 55° N., 41° W.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, July 1940

Station	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Millibars	Millibars	Millibars		Millibars	
Lisbon, Portugal.....	1,020.8	+4.2	1,026	8, 12	1,014	5
Horta, Azores.....	1,027.0	+1.9	1,034	12	1,012	31
Belle Isle, Newfoundland ¹	1,012.7	+0.5	1,023	4	1,002	27
Halifax, Nova Scotia.....	1,017.2	+3.0	1,025	14, 18	1,003	31
Nantucket.....	1,017.3	+2.1	1,027	6	1,006	31
Hatteras.....	1,018.3	+2.0	1,026	6	1,011	25
Turks Island.....	1,017.7	-0.6	1,020	10, 13, 14	1,015	31
Key West.....	1,017.3	+0.4	1,021	10	1,014	3
New Orleans.....	1,017.3	+1.4	1,022	14	1,012	3

¹ For 24 days.

NOTE.—All data based on available observations, 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.—The month was quieter over the North Atlantic than even a summer month is likely to be. No low from the Tropics affected the weather appreciably, and but one instance of a gale of force exceeding 8 has been reported. The cutter *Hamilton*, during the forenoon of the 7th, experienced force 10 (whole gale) near 39° N., 60° W. At the time there was a large area of low pressure covering much of the northwestern part of the North Atlantic and eastern British North America; from this area a trough extended southward to about latitude 40° N., and thence southwestward to the vicinity of the Carolina coast. Apparently a small low formed within this trough and moved toward the north-northeast, the center passing not far from the *Hamilton*.

Fog.—From the Virginia capes to southwestern Nova Scotia considerable fog was reported, though in general a little less than had occurred during June. Very much more fog was noted here from the 18th to the end of July than during the first 17 days of the month. In the 5° square, 40° to 45° N., 65° to 70° W., fog occurred during 14 days, a number greater than that indicated by reports at hand for any other North Atlantic square. This square, however, is shown by records of past years to average over 20 July days with fog.

From the sixty-fifth meridian to the forty-fifth such reports as have been received indicate some fog between the fortieth and forty-fifth parallels of latitude. The square 40° to 45° N., 50° to 55° W., furnished reports of fog on 7 days, well distributed through the month.

No fog is indicated over any North Atlantic waters south of 35° latitude and almost none over waters east of 45° west longitude.

OCEAN GALES AND STORMS, JULY 1940

Vessel	Voyage		Position at time of lowest barometer		Gale began July	Time of lowest barometer July	Gale ended July	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													
Gulfhawk, Am. M. S.	Las Piedras	Philadelphia	14 25 N.	72 15 W.	1 29	4p, 1	2	1,016.6	E	E, 6	ESE	E, 7	
American Legion, U. S. A. T.	Cristobal	San Juan	12 30 N.	76 00 W.	2	3a, 2	3	1,005.8	ENE	NE, 5	ENE	ENE, 7	
Hamilton, U. S. C. G.	On Station No. 1.	Out from Norfolk	38 48 N.	59 30 W.	7	6a, 7	7	1,006.4	NE	NE, 10	WSW	NE, 10	NE-ENE-WSW
Duane, U. S. C. G.	Station No. 2.	Norfolk	39 06 N.	58 30 W.	8	2a, 8	8	1,006.4	SW	NNE, 8	NW	NNE, 8	SW-NNE-NW
Excalibur, Am. S. S.	Lisbon	New York	40 18 N.	58 18 W.	8	8p, 8	8	1,006.4		W, 8		W, 8	S-W
Caecique, Am. S. S.	New York	Barranquilla	41 38 N.	74 53 W.	9	12m, 10	10	1,009.8	E	E, 7	E	E, 7	
West Ira, Am. S. S.	Cristobal	San Juan	12 23 N.	73 40 W.	17	8p, 18	18	1,007.5	NE	ENE, 6	ENE	ENE, 7	
Exeter, Am. S. S.	Lisbon	New York	42 30 N.	47 12 W.	20	3a, 20	20	1,010.6		SW, 8		SW, 8	SW-N
Trenton, U. S. S.	Ponta Delgada	Annapolis	39 54 N.	52 00 W.	20	9a, 21	20	1,012.5	WSW	NNW, 2	WSW	SW, 8	SW-N
Ingham, U. S. C. G.	On Station No. 2.	Out from Boston	40 30 N.	44 00 W.	22	3a, 23	22	1,007.8	SSW	WSW, 6		SSW, 8	SSW-WNW
NORTH PACIFIC OCEAN													
Manoa, Am. S. S.	Los Angeles	Balboa	15 00 N.	94 54 W.	4	4a, 4	4	1,007.8	NNE	NE, 6	ENE	E, 8	NNE-ESE
Steel Traveler, Am. S. S.	Singapore	Honolulu	7 54 N.	141 48 E.	6	9p, 7	8	1,001.7	NW	W, 8	SW	WNW, 8	WNW-SW
Chateau Thierry, U. S. A. T.	San Francisco	Balboa	14 00 N.	95 30 W.	9	5a, 9	9	1,011.2	NNE	N, 2	ENE	NE, 9	N-NE
Steel Traveler, Am. S. S.	Singapore	Honolulu	14 22 N.	161 03 E.	12	4a, 13	13	1,009.1	E	E, 6	E	E, 8	None
Los Angeles, Am. S. S.	Nome	Los Angeles	54 36 N.	165 30 W.	19	1p, 19	19	994.6	ENE	SE, 8	SE	SE, 9	E-SE
Shantung, Swed. M. S.	Los Angeles	Balboa	19 28 N.	105 19 W.	21	4a, 21	21	1,006.6	E	E, 2	SE	SE, 10	E-SE
Niel Maersk, Dan. M. S.	do	do	17 42 N.	103 42 W.	20	5a, 21	21	1,009.8		E, 7	SE	E, 7	
Onomes, Am. S. S.	do	do	21 06 N.	107 30 W.	21	4p, 21	22	1,007.5	SE	SE, 3	SE	SE, 7	None
Argwdale, Am. S. S.	Honolulu	do	19 55 N.	127 40 W.	29	11p, 29	30	1,001.7	NNE	ENE, 10	E	ENE, 10	NNE-ENE
Liberator, Am. S. S.	do	do	19 36 N.	128 30 W.	29	3a, 30	30	969.5	NNE	E, 7	SSE	SE, 10	NNE-SE
Massmar, Am. S. S.	Balboa	Los Angeles	11 30 N.	88 36 W.	30	7p, 30	30	1,010.2	NE	NE, 4	NE	NE, 7	

¹ June.

² Position approximate.

³ Barometer uncorrected.