

Table of flood stages during December 1937

[All dates in December unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
<b>ATLANTIC SLOPE DRAINAGE</b>					
Santee: Rimini, S. C.	Feet 12	18 30	19 (1)	Feet 12.2 12.8	19 31
<b>MISSISSIPPI SYSTEM</b>					
<i>Ohio Basin</i>					
Allegheny:					
Lock No. 8, near Mosgrove, Pa.	24	18	19	26.2	18
Lock No. 5, Schenley, Pa.	24	18	19	29.7	18
Lock No. 4, Natrona, Pa.	24	18	19	27.4	18
Lock No. 3, Acmetonia, Pa.	25	18	19	28.0	18, 19
Walhonding: Walhonding, Ohio	8	18	18	8.0	18
Muskingum: Lock No. 1, Marietta, Ohio (lower gage)	35	20	20	35.1	20
Scioto: La Rue, Ohio	11	18	18	12.8	18
West Fork of White:					
Anderson, Ind.	8	Nov. 29	1	8.3	Nov. 30
Noblesville, Ind.	14	18	19	13.3	18
Elliston, Ind.	18	18	25	14.1	18, 19
Edwardport, Ind.	12	18	27	25.0	21, 22
East Fork of White: Seymour, Ind.	14	18	21	18.7	23, 24
Whita:					
Petersburg, Ind.	16	20	28	16.1	19, 20
Hazlet, Ind.	16	20	29	20.9	26
Wabash:					
Lafayette, Ind.	11	18	20	21.0	27
Covington, Ind.	16	20	21	12.5	19
Ohio:					
Pittsburgh, Pa.	25	18	19	18.7	20
Dam No. 7, Midland, Pa.	30	18	20	27.5	19
Dam No. 12, near Wheeling, W. Va.	36	19	20	36.0	19
				37.4	19
<i>Arkansas Basin</i>					
Petit Jean: Danville, Ark.	20	18	20	21.1	19

1 Continued at end of month.

Table of flood stages during December, 1937—Continued

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
<b>MISSISSIPPI SYSTEM</b>					
<i>Red Basin</i>					
Ouachita: Camden, Ark.	Feet 26	28	Jan. 5	Feet 30.1	Jan. 1
Sulphur:					
Ringo Crossing, Tex.	20	17	20	24.4	18
Naples, Tex.	22	22	(1)	27.7	31
Cypress: Jefferson, Tex.	18	30	(1)	23.3	31
<i>Lower Mississippi Basin</i>					
Big Lake Outlet: Manila, Ark.	10	30	(1)	10.3	31
St. Francis: Fisk, Mo.	20	19	21	22.1	20
<b>WEST GULF OF MEXICO DRAINAGE</b>					
Trinity: Trinidad, Tex.	28	29	(1)	29.7	30
<b>PACIFIC SLOPE DRAINAGE</b>					
<i>Sacramento Basin</i>					
Stony Creek: St. John, Calif.	12	11	12	12.0	11, 12
North Fork of Yuba: Colgate, Calif.	14	10	11	22.0	10
Feather: Oroville, Calif.	25	11	11	26.3	11
Sacramento:					
Kennett, Calif.	25	11	11	29.0	11
Red Bluff, Calif.	23	11	12	32.0	11
Hamilton City, Calif.	22	11	12	22.8	11
Knights Landing, Calif.	30	12	17	32.6	14
<i>Columbia Basin</i>					
Santiam: Jefferson, Oreg.	10	29	31	13.5	30
South Yamhill: Willamina, Oreg.	8	27	30	14.0	27
Willamette:					
Harrisburg, Oreg.	10	12	13	11.4	12
Salem, Oreg.	20	30	31	21.5	31
Oregon City, Oreg.	12	29	(1)	16.3	31
Portland, Oreg.	18	30	31	19.0	30
Columbia: Vancouver, Wash.	15	30	31	15.8	31

1 Continued at end of month.

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

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

NORTH ATLANTIC OCEAN, DECEMBER 1937

By H. C. HUNTER

Atmospheric pressure.—The pressure situation during December was mainly like that of November, the northern region having decidedly high pressure compared with normal, while pressure below normal was the rule in the Bermuda-West Indies region. The notable change was in the southeastern areas, where slightly above normal December pressure succeeded the considerably below normal November pressure. At Horta the November average, a quarter inch under normal, gave way to a December average 0.04 inch above normal; the mean of the latter month (30.18 inches) being the highest among those shown in table 1.

Over the southern region and the waters adjacent to northwestern Europe pressure was almost everywhere higher during the second half of the month than during the first half. A different situation is noted for the Labrador-eastern Canada section, where the first 12 days had mainly high pressure and the period from 13th to 23d, low pressure.

The extremes of pressure in the vessel reports at hand are 30.67 and 28.69 inches. The higher mark was noted on the American steamship *Scanstates*, at noon of the 28th, near 58° N., 12° W. A slightly higher reading was made next day at the island station of Lerwick, as shown in table 1. The lower mark was recorded on the American steamship *Scampenn*, early on the 21st, near 53° N., 37½° W.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, December 1937

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
Julianehaab, Greenland	Inches 29.73	Inch +0.25	Inches 30.56	7	Inches 29.02	22
Reykjavik, Iceland	29.70	+ .23	30.39	23	28.85	22
Lerwick, Shetland Islands	29.90	+ .18	30.71	29	29.26	5, 14
Valencia, Ireland	29.90	- .04	30.62	27	29.09	13
Lisbon, Portugal	30.13	+ .02	30.45	26	29.68	8
Madeira	30.10	+ .01	30.33	5	29.74	8
Horta, Azores	30.18	+ .04	30.60	12	29.80	18
Belle Isle, Newfoundland	29.95	+ .21	30.52	3	29.28	22
Halifax, Nova Scotia	30.01	+ .06	30.58	28	29.56	14
Nantucket	30.06	+ .01	30.58	27	29.14	7
Hatteras	30.15	+ .02	30.52	27	29.50	6
Bermuda	30.06	- .06	30.36	28	29.42	4
Turks Island	30.00	- .03	30.12	27	29.86	9
Key West	30.08	0.00	30.22	27	29.77	6
New Orleans	30.17	+ .04	30.45	2	29.71	17

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.—A considerable number of gales occurred, but reports available show none of forces 11 or 12. The absence of gales of these intensities is unusual in December. Several whole gales (force 10) were recorded, and it is noteworthy that more than two-thirds of these were met during the final 10 days of the month. Storm activity was at a minimum from the 7th to 12th.

A notable low of early December was centered the forenoon of the 2d about midway between Bermuda and

the northern Bahamas, with little strength; it moved thence to the northeastward, gaining in force, and on the 4th was central north of Bermuda, as chart IX shows. Thence it moved on to near Nova Scotia on the 5th, and then northwestward to unite with a cyclone advancing from the west; thereafter this center remained over the land and became less energetic.

About this time prevailing pressure was quite high over the South Atlantic, Gulf, and Plains States, and north winds were frequently encountered by vessels traversing the eastern Gulf of Mexico or the western Caribbean Sea.

On the 23d and 24th a vigorous storm from the interior of Canada developed still greater strength to the eastward of Newfoundland and caused strong to whole gales near mid-ocean along the steamship lanes to northwestern Europe. By the 26th, however, this low had turned northward to unite with another affecting the Iceland-Greenland area, as appears on chart X. This chart shows another important low central a short distance to southeastward of Newfoundland; it had resulted from the uniting near Cape Cod of two storms not especially strong, one coming from the South Atlantic States and the other from the Lake Region. From the vicinity of Newfoundland the center traveled north-northeastward to a position slightly to eastward of Cape Farewell, and the low as a

whole became much elongated along a north-south line, so that important gales were met near mid-ocean about the 28-29th.

On the last 3 days of the month still another low-pressure system caused gales of considerable strength to southwestward, southward, and eastward of Newfoundland.

*Fog.*—As usually happens during December, fog was of infrequent occurrence for the most part. The northwestern Gulf of Mexico was an exception, for the 5°-square, 25° to 30° N., 90° to 95° W., furnished reports of 7 days with fog, all of them later than the 23d. This exceeds the total for any other portion of the North Atlantic. A little fog was noted over the waters adjacent to Florida and the Carolinas and near Chesapeake Bay.

From the vicinity of New York to the fifty-fifth meridian fog was almost entirely absent to the northward of the fortieth parallel of latitude; and there was scarcely any between the eastern part of the Grand Banks section and the western coast of Europe, except in the square 45° to 50° N., 10° to 15° W., where occurrence on 3 days was indicated. Apart from the Gulf of Mexico the most frequent occurrence was in two adjacent squares of the southwestern Grand Banks, namely, 40° to 45° N., 45° to 55° W., where 5 days of foginess, all before the 10th, have been reported.