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WEATHER OF NORTH AMERICA AND ADJACENT OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

The following table shows the average sea-level pressure for the month at a number of land stations on the coast and islands of the North Atlantic. The readings are for 8 a. m., 75th meridian time, and the departures are only approximate, as the normals were taken from the Pilot Chart and are based on Greenwich mean noon observations, which correspond to those taken at 7 a. m., 75th meridian time.

Station	Average pressure	Departure
	Inches	*Inches*
St. Johns, Newfoundland	30.03	+0.03
Nantucket	30.11	+0.07
Hatteras	30.04	+0.01
Key West	29.92	−0.04
New Orleans	29.97	−0.01
Swan Island	29.79	−0.09
Turks Island	29.96	−0.01
Bermuda	30.11	+0.05
Horta, Azores	30.20	+0.03
Lerwick, Shetland Islands	29.64	−0.18
Valencia, Ireland	29.79	−0.20
London	29.86	−0.14

It will be noticed that the average pressure did not differ materially from the normal at the majority of the stations in the above list, although in northern Europe and in the western part of the Caribbean Sea, fairly large negative departures were the rule. At Horta the barometric readings ranged from 29.94 inches on the 2d and 7th to 30.44 inches on the 15th and 30th.

Taking the ocean as a whole, the number of days on which winds of gale force were reported was in excess of the normal as shown on the Pilot Chart. The waters west of the Bermudas were invaded by a succession of tropical disturbances, while gales of extra-tropical origin were unusually frequent over the middle and eastern sections of the steamer lanes.

Fog was not quite as prevalent over the Grand Banks as in August, although the number of days on which it was observed in that region was somewhat above the normal for the current month. Fog was reported on 8 days in the 5-degree square between the 40th and 45th parallels, and the 65th and 70th meridians; it was comparatively rare over the middle and eastern sections of the steamer lanes, and also off the American coast, south of the 40th parallel.

From the 1st to the 4th a tropical disturbance, first reported in August, passed northward over the Bermudas; this is described elsewhere in the REVIEW, but the following storm logs from vessels that were involved may prove of interest:

Spanish S. S. *Sac. 2*, Teneriffe to Tampa:

Gale began on the 2d, wind SE., 8. Lowest barometer 29.04 inches at noon on the 2d, wind SSE., 9, in 26° 39′ N., 66° 13′ W. End on the 2d, wind SW. Highest force of wind 9, SSE.; shifts SSE–SE.

American S. S. *West Camak*, Plymouth to Houston:

Gale began on the 2d, wind SSE. Lowest barometer 29.51 inches at 8 a. m. on the 3d, wind SSW., 11, in 30° 40′ N., 67° 21′ W. End on the 3d, wind WSW. Highest force of wind, 11; shifts SSE–SSW.

French S. S. *Rochambeau*, Havre to New York:

Gale began on the 4th, wind E., 7. Lowest barometer 28.94 inches at 10 a. m. on the 4th, wind NE., 9, in 41° 10′ N., 65° 05′ W. End on the 4th. Highest force of wind 10; shifts E–NE.

On the 1st there was also a LOW in mid-ocean and at the time of observation northerly gales prevailed in the vicinity of 45° N., 40° W., while later in the day southerly winds of gale force were reported from the region between the 55th and 60th parallels and the 20th and 30th meridians. This disturbance moved rapidly northeastward and on the 2d the center was in the vicinity of 57° N., 35° W., with northerly and southerly gales in the western and eastern quadrants, respectively.

A depression first reported on the 4th near 55° N., 35° W., moved slowly eastward and on the 7th was central near 50° N., 20° W.; it reached its greatest intensity on the 5th and strong northerly to northwesterly gales were encountered in the region between the 45th and 50th parallels and the 25th and 40th meridians. Storm log:

Belgian S. S. *Carlier*, Antwerp to New York:

Gale began on the 4th, wind S. 6. Lowest barometer 29.54 inches at 8 a. m. on the 5th, wind NW., 10, in 50° 10′ N., 30° W. End on the 5th, wind NNW., 7. Highest force of wind 10, NNW.; shifts S–SSW–W–NW.

From the 10th until the 24th the waters off the coast of northern Europe were in an almost constant state of turmoil, due to the presence of one cyclonic disturbance after another. On the 10th southwesterly gales were reported from the vicinity of the Scandinavian Peninsula.

Storm log:

American S. S. *Ophis*, Malmo, Sweden, to Charleston:

Gale began on the 10th, wind WNW. Lowest barometer 28.84 inches at 6 a. m. on the 10th, wind SW., in 57° 40′ N., 10° 35′ E. End on the 11th, wind SW. Highest force of wind 10, NW.; shifts WNW–W–NW.

On the 12th westerly gales of hurricane force prevailed over the region between the 25th meridian and the coast of Ireland, as shown by the following storm log.

Norwegian S. S. *Modig*, Androssan, Scotland, to Portland, Me.:

Gale began on the 11th, wind WNW. Lowest barometer 28.98 inches at 4 p. m. on the 12th, wind SW., 11, in 55° 08′ N., 15° 35′ W. End on the 13th, wind WNW. Highest force of wind 12; steady SW.

The daily weather map for September 14 shows a tropical disturbance, described elsewhere in the REVIEW, that moved eastward across Florida and thence northeastward along the American coast. The following storm logs give an idea of its intensity after reaching northern waters.

American S. S. *Steadfast*, Galveston to Liverpool:

Gale began on the 17th, wind S. Lowest barometer 29.74 inches at 4 p. m. on the 17th, wind S., 8, in 37° 49′ N., 66° 32′ W. End on the 18th, wind W. Highest force of wind 8, S.; shifts S–SSW.

British S. S. *Aquitania*, New York to Southampton:

Gale began on the 17th, wind NE. Lowest barometer 29.49 inches at 4 a. m. on the 18th, wind SSW., in 40° 34′ N., 66° 03′ W. End on the 19th, wind W. Highest force of wind 9, SW.; shifts NE–ESE–SSW–SW.

Charts VIII to XIII cover the period from the 16th to 21st, inclusive. In northern waters on the 15th there were two poorly defined depressions; the first central near 50° N., 40° W., and the second in the vicinity of 58° N., 20° W. By the 16th these two areas had apparently joined forces, with the center near 55° N., 20° W., the storm area extending as far west as the 45th meridian. On the 18th this disturbance was off the south coast of Scotland, and had decreased somewhat in extent and intensity.

Storm logs:

Norwegian S. S. *Modig*, Androssan, Scotland, to Portland, Me.:

Gale began on the 15th, wind W. Lowest barometer 29.19 inches at 3 p. m. on the 16th, wind WSW., 11, in 53° 27′ N., 25° 56′ W. End on the 17th, wind WNW. Highest force of wind 12; shifts 8 points.

Danish S. S. *United States*, New York to Kristianssand:

Gale began on the 15th, wind S. Lowest barometer 28.89 inches at 4 a. m. on the 16th, wind WSW., in 56° 14′ N., 24° 15′ W. End on the 19th, wind W. Highest force of wind 10; shifts S. to WSW.

American S. S. *Wildwood*, Aberdeen to Pensacola:

Gale began on the 16th, wind W. Lowest barometer 28.70 inches at 4 p. m. on the 17th, wind W., 9, in 60° N., 9° 30′ W. End on the 18th, wind W. Highest force of wind 9, W.; shifts SSW.–W.–NNW.

Off the south coast of Ireland on the 20th there was a LOW of limited extent, with northwesterly gales in the western quadrants, and southerly in the eastern, as shown by Chart XII.

Storm log:

Dutch S. S. *Veendam*, Rotterdam to New York:

Gale began on the 20th, wind SW. Lowest barometer 29.00 inches at 8 a. m. on the 20th, wind NW., 9, in 49° 50′ N., 17° 44′ W. End on the 20th, wind WNW. Highest force of wind 9, NW.; shifts SW.–NW.

This disturbance moved but little during the next four days, and was intermittent in character, as the force of the wind had decreased by the 21st, only to increase again on the 22d; westerly and northwesterly gales continued until the 24th over the region between the 25th meridian and European coast.

Storm logs:

British S. S. *Masconomo*, Norfolk to Hamburg:

Gale began on the 22d, wind WSW. Lowest barometer 29.71 inches at 7 a. m. on the 22d, wind WSW., in 48° 33′ N., 20° 40′ W. End on the 23d, wind N. Highest force of wind 11, WSW; shifts WSW.–NNW.–NW.

British S. S. *Minnetonka*, Cherbourg to New York:

Gale began on the 22d, wind SSW. Lowest barometer 29.23 inches at 3:50 p. m. on the 22d, wind SW., in 49° 49′ N., 12° W. End on the 24th, wind NW. Highest force of wind 10; shifts SSW.–SW.

From the 24th to the 27th there was an area of low pressure over the region between Newfoundland and the 40th meridian, where a few vessels reported winds of moderate gale force.

From the 28th to 30th the last tropical disturbance of the month, as described elsewhere, moved from the south coast of Cuba on the former date to the vicinity of Hatteras on the latter.

On the 29th northerly winds, force 7, were reported from vessels in the western part of the Gulf of Mexico, and southerly winds, force 8, from off the coast near Nantucket on the 30th.

On the 26th there was a LOW central about 10 degrees east of St. Johns, Newfoundland, that moved slowly northeastward, and on the 27th was near 52° N., 40° W.

Storm log:

Swedish S. S. *Stockholm*, New York to Gothenburg:

Gale began on the 26th, wind NW. Lowest barometer 29.97 inches at noon on the 26th, wind NW., 8, in 48° 04′ N., 50° 32′ W. End on the 27th, wind N. Highest force of wind 8; shifts NW.–NNW.

From the 28th until the 30th there was another disturbance over the region between the 30th meridian and European coast that reached its greatest intensity on the 29th.

Storm log:

British S. S. *Verbania*, New York to London:

Gale began on the 29th, wind W. Lowest barometer 29.66 inches at 6 a. m. on the 29th, wind W., 8, in 48° 55′ N., 25° 20′ W. End on the 29th. Highest force of wind 8, NW.; shifts W.–NW.

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NORTH PACIFIC OCEAN

By WILLIS EDWIN HURD

The change from summer to early autumn conditions, although gradual, was none the less decided. Depressions of the temperate regions appeared over somewhat lower latitudes than in August, and the Aleutian cyclone became restored to its place over the northern sailing routes. As a consequence, although the weather continued generally fine, gales in middle and higher latitude became more frequent and cloudiness and rains were common over the northern reaches of the North Pacific. Fog, however, became less prevalent. It was observed on several days both east and west of the 180th meridian, but only along the American coast between the 30th and 50th parallels did it approximate the frequency of its occurrence in August. Between San Francisco and San Diego fog was reported by steamships on 16 days of the month.

The general pressure distribution over the ocean for September showed the great anticyclone of middle latitudes, central near 35° N., 145° W., continuing as a stable condition, but becoming somewhat more disturbed by cyclonic movements with the advance of the season. In the neighborhood of Midway Island two cyclones, one on the 12th and 13th, the other on the 19th and 20th, cut into the high-pressure area from the west. On the north the Aleutian LOW, encroaching southward, distorted the HIGH on several occasions. On the east, while no depression came in from the Hawaiian region, yet low pressure spread westward from the United States on the 11th and 12th and in conjunction with the Gulf of Alaska LOW, covered the whole ocean east of 140° west longitude. Anticyclones entered the United States from the oceanic HIGH on the 1st, 3d, 8th, 16th, 20th, and 25th.

The average pressure at Dutch Harbor, based on p. m. observations, was 29.71, or 0.04 inch below normal. The highest reading, 30.54, was recorded on the 19th and 20th; the lowest, 28.96, on the 25th. At Midway Island pressure was slightly above normal, the average being 30.03 inches, as compared with a normal of 30.01. The highest reading, 30.14, was recorded on the 27th; the lowest, 29.78, on the 18th and 19th. At Honolulu also pressure was above normal, the departure there being relatively greater than at either of the other island stations, +0.05 inch. The average of the p. m. observations was 30.03 inches. September was the second month in succession when pressure at Honolulu did not on any day register below normal at the time of the p. m. observation. The highest pressure, 30.14, occurred on the 5th; the lowest, 29.92, on the 17th.

Frequent rains fell over the northern part of the ocean and along the California-Panama route. In the latter region there seems to have been an unusual amount of precipitation. But at Honolulu the month is mentioned as the third driest September on record, with a total of only 0.34 inch of rain.

At Honolulu, quoting from the observer, "the most important feature of the month was the very small change in average temperature from day to day. The daily change for September averaged only 0.5°, which