

WEATHER OF THE MONTH.

WEATHER OF NORTH AMERICA AND ADJACENT OCEANS.

GENERAL CONDITIONS.

By A. J. HENRY, Meteorologist.

In the Northern Hemisphere the greatest mean pressure for July is observed in the vicinity of the Azores and pressure is least in the Arctic regions and from India westward to the Persian Gulf.

The Azores HIGH in connection with the low pressure in the Arctic, exerts a powerful influence on wind and weather over a great portion of the Northern Hemisphere. Southwest winds prevail from the Rocky Mountains to western Europe and midsummer weather is best exemplified in this month.

NORTH PACIFIC OCEAN.

The oceanic high appeared to be farther north than usual at this season and in consequence there was less cloudiness and fog in the coast sections than is usual in July and foggy nights and mornings seldom occurred in the coast valleys. This feature was very detrimental to the growing bean crop, which is dependent upon the fogs for the necessary moisture to mature the crop.—*G. H. Willson.*

Pressure at Midway Island was continuously above normal after the first few days of the month, in contrast to the low pressure which prevailed there in June. At Dutch Harbor the month opened with pressure above normal. This continued until the 8th when a well-defined low-pressure area developed, lasting until the 12th. Thereafter conditions were about normal until the 27th when low pressure set in which continued to the end of the month. At Honolulu pressure was about normal, moderate fluctuations taking place at different times during the month.

An unusual amount of fog was encountered during the month by vessels using the northern route. Mr. Harold Ford, second officer on the British S. S. *Empress of Japan*, gives the following account of the experience of that vessel:

You will observe that we encountered a very big fog bank through which we steamed four days at 15 knots, from longitude 158° east to longitude 168° west, between the parallels of 43° 34' and 50° 22' north, thence drizzling rain and light haze all the time, with low barometer throughout and low visibility, unpleasant, gloomy weather. Altogether very poor weather for the time of the year. You will notice quite a depression about 160° west, with a continuance of southwest winds and cloudy weather to arrival on coast.

It was remarkable how clean cut was the eastern edge of the great fog bank in longitude 168° west. After passing through this longitude we had perfectly clear weather.

The *Empress of Japan* was in the fog belt from July 7 to 10. During this period, as already stated, pressure was below normal at Dutch Harbor.

Press reports indicate that a typhoon was developing in the Far East at the close of the month.—*F. G. Tingley.*

NORTH AMERICA.

By A. J. HENRY.

The current month: So far as available reports indicate, the outstanding features of the weather were the very irregular distribution of precipitation, the absence of decided warm spells, tropical cyclones, and severe local wind storms.

The drought of the previous months in northwestern United States has continued; on the southern boundary of the drought area, however, copious rains have fallen. The heavy precipitation in the Appalachians and over the lowlands to the eastward appears to have been due to a more or less local pressure distribution which caused a steady drift of southerly winds over the Carolinas and Georgia. The occurrence of such pressure distribution is seemingly fortuitous; in this case the winds were mostly from the ocean and heavy and continuous precipitation resulted. In the Plateau region and the far Northwest the pressure distribution was also at times for southerly winds, but these being from a warm, dry, continental interior, there was no precipitation to speak of.

NORTH ATLANTIC OCEAN.

By F. A. YOUNG.

The weather over the North Atlantic during July, 1919, was remarkable for the comparative lack of heavy winds, as all the marine reports received by the latter part of August fail to show any cyclonic disturbances covering extensive areas.

The mean pressure for the month was slightly lower than usual off the coast of Newfoundland, while it was practically normal on the coast of Nova Scotia and in the Gulf of Mexico. Slight positive departures were the rule along the American coast, while in the Bermudas and Azores the mean monthly pressure was about 0.1 inch above the normal, and on the coasts of Scotland and Ireland it was a little higher.

As shown in Chart X for July 3, the American steamship *Creole*, while in the Gulf of Mexico near latitude 27° 10' N. and longitude 86° 36' W. ran into a severe northwesterly gale. The observer reported as follows: "July 2 midnight, fresh northeast gale with violent rain squall and rough sea; July 3, 6 a. m., wind hauling around to northwest; moderating and clear sky by 10 a. m." The storm area was evidently of very limited extent, as a number of vessels not over 100 to 200 miles away from the *Creole*, experienced light to moderate winds, although heavy swells were reported at a considerable distance from the storm center.

On July 4 (Chart XI) the center of this storm was evidently near Pensacola, Fla., where a northerly gale of about 50 miles an hour prevailed, accompanied by rain, the barometer reading 29.50 inches. The storm area apparently did not extend into the Gulf, as vessels a comparatively short distance south of Pensacola reported light to moderate winds.

On the morning of the 14th (see Chart XVIII) the British steamship *War Bracken* encountered a strong northeasterly gale off the coast of Portugal and in the storm log the observer states: "Gale began on the 13th. Lowest barometer 30.15 inches; at 4 p. m. on the 13th at latitude 39° 44' N., longitude 12° 20' W. End of gale on the 15th, highest force of wind 55 miles an hour; no shifts of wind." While no reports were received from the immediate vicinity of the *War Bracken*, two vessels located between Madeira and Lisbon experienced moderate northerly and northeasterly winds with com-

paratively high barometric readings, while in the region to the northward winds of even less force prevailed.

The British dirigible *R-34*¹ left Scotland for America in the early morning of July 2, arriving at Mineola, N. Y., on the afternoon of the 6th. The return voyage was begun on the morning of the 10th, Norfolk, England, being reached on the morning of the 13th.

Charts IX to XIII show the atmospheric conditions over the ocean at Greenwich mean noon for each day

during the air ship's westward journey, and Charts XIV to XVIII give the same information for the return voyage.

In the two 5° squares that include Halifax, Nova Scotia, and St. Johns, Newfoundland, fog was observed on 9 and 11 days, respectively, which is slightly below the normal for both localities. Fog was reported on from 1 to 2 days along the northern steamer lanes, and on 5 days off the north coast of Scotland.

NOTES ON WEATHER IN OTHER PARTS OF THE WORLD.

British Isles.—The greater part of July there was a constant proclivity for an extension northward of the anticyclonic system which is centered, in an ordinary July, over the Azores region. As a result the prevailing winds in this country were not merely of oceanic origin, but came from high latitudes, more often than not from the northward or northwestward, and in some few instances from the northeastward. The mean temperature of the month was consequently below the average, and especially so over eastern and central England * * *. In London (Camden Square) the mean temperature, 59.3° (F.), was 4.2° below the average and the lowest for July in the 62 years' record excepting 1879 (59.1°) and 1888 (58.9°). * * *

The general rainfall for England and Wales was 74 per cent of the average, for Scotland 36 per cent, and for Ireland 45 per cent of the average.—*Symons's Meteorological Mag., Aug., 1919, p. 81.*

France.—"Paris, August 17.—The thermometer has been hovering between 85° and 95° for the last week. A newspaper prints photographs showing various traffic centers of the city deserted at 2 p. m. Friday [the 15th].

"Reports from the Provinces say that the extremely warm weather is injuring the harvests. At Lyon the thermometer reached 120°.[?]"—*N. Y. Times, Aug. 18, 1919.*

Argentina.—Floods following a month of the heaviest rainfall ever recorded caused the loss of 1,100,000 cattle in the southern part of the Buenos Aires Province. In the northwest heavy snows are reported; in some places, it is stated, snow has reached a depth of 25 feet. Communication by railroad or telegraph is impossible in many sections.¹

Chile.—Over 80 persons were killed and some 14 vessels of various sizes in the harbor were sunk during a terrific storm which swept over Valparaiso July 12 and 13. Property worth about \$70,000,000 was destroyed.¹

¹ See also p. 505 of this number of the REVIEW.

¹ The Pathfinder, Washington, D. C., Aug. 9, 1919.