

Hurricane warnings were distributed at 9:25 a. m. on the morning of the 22d, as follows:

WASHINGTON, D. C., June 22, 1921.

Hoist hurricane warning 9:30 a. m., Texas coast, Matagorda Bay to Port Arthur, Tex. Tropical storm central off Texas coast east of Corpus Christi apparently moving northward increasing in intensity; it will cause dangerous shifting gales to-day along the Texas coast between Corpus Christi and Port Arthur.

MITCHELL.

Northeast storm warnings were issued for the southwestern portion of Louisiana and the following wind forecast was sent to all stations on the Louisiana coast: "Increasing easterly winds Wednesday afternoon and night; dangerous tides on the coast"; signed, "Cline."

The following wind forecast was telegraphed with the forecast to all authorized points in southeastern Texas:

Strong northeast winds and gales in southeastern portion of Texas this afternoon and to-night, becoming northerly and westerly Thursday and subsiding. High tides on the east coast.

CLINE.

No storms occurred without warning.—*I. M. Cline.*

DENVER FORECAST DISTRICT.

The outstanding feature of the weather for June was an area of high pressure which appeared over Alberta on the 1st and which had covered the northeastern Rocky Mountain slope by the morning of the 2d. This HIGH, in conjunction with a LOW that developed about the same time over the Rocky Mountain Plateau, was the cause of showers long the eastern slope from the night of the 1st-2d to the night of the 5th-6th, during which time some of the heaviest rains of record fell on the eastern slope of the Continental Divide in Colorado and in northern and eastern New Mexico. Especially heavy local downpours occurred over the Arkansas drainage basin above Pueblo during the afternoon and evening of the 3d and were followed by the disastrous flood at that city, although the rainfall was everywhere sufficient to raise the smaller streams of the eastern slope to the flood stage.

Twenty-four hour amounts of precipitation of more than 2 inches were common from Boulder County southward to Pueblo and the eastern portion of Fremont Counties on the 3d and 4th. It appears that the heaviest rains occurred from Penrose to Pueblo, including the drainage areas of Pecks, Rock and Boggs Creeks, and probably from Fountain to Pueblo. Although there are few reliable data for this region, the fact that the total rainfall exceeded 10 inches at a few places during the period from the 3d to the 7th seems to have been fairly well established.

The HIGH already referred to was followed on the 6th by another and more moderate area of high pressure on the eastern slope and in the upper Missouri Valley, the showers continuing in the same territory through the 7th, although the rainfall was much lighter.

An area of low pressure developed on the Rocky Mountain Plateau on the 10th and was attended by high temperatures until the 14th, causing a rapid melting of the more than usual amount of snow which remained at the higher elevations and producing exceptionally

high stages in the streams of western Colorado, northwestern New Mexico and eastern Utah.

The usual summer distribution of air pressure prevailed during the latter half of the month. High temperatures in most of the Denver district from the 27th to the 30th resulted from extensive lows which covered about all of the Rocky Mountain region and western Canada.

Freezing temperature was forecast for extreme southwestern Colorado, extreme northwestern New Mexico, north central and extreme northeastern Arizona, and the higher elevations of extreme southeastern Utah on the morning of the 1st. Minimum temperatures of 30° and 36° were recorded at Flagstaff and Durango, respectively, on the following morning. Freezing temperature was also forecast on the morning of the 18th for the higher elevations of northern Arizona. The reading of the minimum thermometer at Flagstaff on the morning of the 19th was 30°. A temperature of 30° occurred at Flagstaff on the morning of the 18th for which no prediction was issued.—*J. M. Sherier.*

SAN FRANCISCO FORECAST DISTRICT.

The month was marked by a large number of rainy days in western Washington, but in other portions of the district neither the amounts of rainfall nor the number of rainy days were more than usual. Storms from the North Pacific passed inland at a high latitude and their influence was confined to the extreme northwest portion of the district.

Three well-defined depressions formed over the interior of California and the southern plateau: The first in the early part of the second decade, the second in the first part of the third decade, and the third near the close of the month. The first gave showers over a large portion of the district; the second caused many thunderstorms in the mountain sections but little or no rain fell at the regular stations; and the third gave rain in the North Pacific States extending south along the coast to Point Reyes. A secondary depression from a storm over the Northern Plains States developed over the southern plateau on the 15th, and moved rapidly southeast followed by an area of high pressure from the northwest. This movement caused a sharp fall in temperature in Nevada on the 16th, with heavy to killing frosts on the mornings of the 16th and 17th.

Fire-weather warnings were issued in northern California on the 9th and 21st. The first read, "Very warm weather with moderate hot drying northerly winds for the next two or three days." The second, "Thunderstorms this afternoon and to-night in the mountains with cooler weather." Both of these warnings were timely and fully verified.

The following commendation was received from the Signal Corps meteorologist, at March Field (near Riverside, Calif.):

The forecasts are appreciated at this field and they have come to prepare for things according to what the forecast is, and it is always correct.

No storm warnings were ordered during the month.—*G. H. Willson.*