

METEOROLOGY

1954 Weather Reviewed

Heat and drought marked last year's weather, which, as a whole, was similar to 1953. First half of year saw monthly seesaw of mild and cold weather.

► THE WEATHER during 1954 in the United States was marked by heat and drought, some areas in the southern half of the country being seared for the third or fourth straight year.

As a whole, weather for the year was somewhat similar to 1953, the U. S. Weather Bureau told SCIENCE SERVICE.

After a monthly seesaw of mild and cold weather from January through May, hot dry weather set in over the same regions that have been suffering drought conditions for the past three or four years.

During February and March, parts of Colorado, Oklahoma, Kansas and Texas suffered the most severe duststorms since the 1930's. Soil erosion was an ever-present menace in the old Dustbowl area.

Intense heat for long periods during the summer and fall in central and southeastern portions of the country aggravated the conditions caused by lack of rainfall.

At the end of August, Little Rock, Ark., had recorded 43 days with temperatures of 100 degrees Fahrenheit or over, and only 23% of normal rainfall.

On the other hand, on Jan. 20, the low temperature record for the United States was broken when Rogers Pass, Mont., recorded 69 degrees below zero Fahrenheit. The previous record, 66 degrees below zero, was set on Feb. 9, 1933, at Riverdale Ranger Station in Yellowstone National Park.

Tornadoes struck again in March of last year at Columbus and Macon, Ga. Eight persons were killed, 95 injured and \$14,000,000 in property damage was suffered in this area, much of it at Fort Benning.

In all, losses from spring storms amounted to nearly 100 dead, 600 injured and a loss of \$50,000,000 in property and crop damage.

Four hurricanes hit the U. S. during 1954. Hurricane "Alice" produced the greatest flood on the Rio Grande and Pecos River in written history.

Near the end of the summer, two hurricanes in 11 days swept across New England. Hurricane "Carol" on Aug. 30-31 was the more destructive, leaving 68 dead and over \$450,000,000 in damage, mostly in Rhode Island and Massachusetts.

On Sept. 10-11, hurricane "Edna" followed almost the same path, although this time Maine was hardest hit. At least 12 deaths were attributed to the tropical storm.

On Oct. 15, hurricane "Hazel" cut a path of destruction from the South Carolina coast to Ontario. Damage from wind, rain and resulting floods exceeded \$500,000,000. Nearly 200 persons were killed by the storm. The storm had previously roared across Haiti, taking a heavy death toll there.

Other highlights from the Weather Bureau's summary of 1954 weather month-by-month:

January—Temperatures for the country as a whole averaged about normal, but from the 14th to the 27th, northern areas had unusually cold weather.

February—An unusually mild February brought an extremely early ice break-up in northern rivers and lakes, and vegetation began to show signs of spring. Subnormal rainfall and warm temperatures, combined with strong winds, rapidly dried out fields and pastures, resulting in many severe duststorms.

March—Precipitation was below average again in an unusually cold March. Strong winds eroded the soil, reducing visibility to one-sixteenth of a mile at times in the lower Great Plains area. Brown snow, colored by the dust of the Plains, fell in Michigan. A snowstorm left the heaviest snowfall in the area of Liberty, Miss., since 1895.

April—The weather turned warm over most of the country early in April, after a brief cold spell during which below zero temperatures were recorded in the North. Tornadoes and windstorms were responsible for over \$2,000,000 loss in property and crop damage.

May—Cold weather ushered in by storms at the end of April hung on during most of May east of the Continental Divide. Snowfall was widespread in northern sections and freezing extended into the South, average temperatures there being the lowest since 1917. Storms left 47 dead, 164 injured and damage of \$12,000,000, more than half caused by hail and tornadoes. There were 102 tornadoes in various parts of the country.

June—In addition to drought and flood damage, June storms were responsible for 52 deaths, 187 injuries and \$30,000,000 in property and crop losses.

July—The heat which began in early June persisted over most of the nation east of the Continental Divide through all of July. Temperatures of 100 degrees Fahrenheit and higher occurred day after day in the central interior of the country.

August—A short break in the heat wave was followed by a quick return to hot weather in the South and Southeast, making the summer one of the hottest and driest on record from Kansas, Oklahoma and Texas eastward to the coast. Hurricane "Carol" tore into New England along much the same path as the hurricane of September, 1938.

September—Ten days after hurricane "Carol," Edna appeared on the scene and

again New England was subjected to devastating winds and rain. The rest of the country remained dry and hot. At the end of September, rainfall for the year to date was far behind normal in a large area.

October—Moderate to heavy rains fell at the beginning of October from the upper Mississippi Valley eastward, doing much to relieve surface features of the drought. Hurricane "Hazel" hit the East Coast and Canada. Chicago and its immediate vicinity was deluged with up to 11 inches of rain in 48 hours on Oct. 9-11.

November—Temperatures were considerably below normal in the eastern half of the country at the beginning of the month, but gradually warmed up until, during the third week of November, the entire country except central California reported above normal averages.

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GLACIOLOGY

Western Glaciers Found Growing, Not Receding

► GLACIERS IN the western part of the United States are growing, not receding, Dr. A. E. Harrison of the University of Washington reported to the American Association for the Advancement of Science meeting in Berkeley, Calif.

Photogrammetry, a precise form of three-dimensional photography applied to surveying, was used to make the measurements showing glacier growth, Dr. Harrison said. Conventional surveying methods, he pointed out, are "too laborious and do not provide sufficient information" for solving the problems involved in glacier behavior.

Interest in measuring glaciers in the western states has been intense since the discovery ten years ago that some of these large ice bodies were reversing the expected trend of shrinkage and recession.

The "most spectacular growth," Dr. Harrison said, has occurred in the Cascade Range of Washington, particularly on the volcanic peaks. The new trend is evident throughout the western states.

Science News Letter, January 1, 1955

GENERAL SCIENCE

Lifetime Grants Seen Threat to Research

► "LIFETIME GRANTS" to scientists starting their research careers may destroy the freedom of research scientists desire and may create a scientific manpower shortage in the future.

These possibilities are pointed out by John M. Russell, executive director and vice president of the Markle Fund, in the fund's annual report.

Recipients of the lifetime grants may lead such an "ivory tower" existence that they are unavailable for teaching and stimulating young people who might become the scientists of the future, Mr. Russell points out.

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