

Released on receipt
but intended for use
October 2, 1929.

A Science Service Feature

? WHY THE WEATHER ? Mailed September 25, 1929.

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U.S. WEATHER BUREAU STATIONS

Watching the weather of the United States is a task that requires the maintenance under government direction of a vast system of observation stations. There are, first of all, 205 so-called "regular" or first-order stations manned by full-time employees. Five of these, known as "aerological" stations, devote their entire energies to upper-air observations and investigations. Of the other first-order stations 28 are located at airports and, in addition to the ordinary duties of a weather station, serve the special needs of aviators.

Next in importance come about 1,930 subordinate stations having part-time paid employees, and maintained in connection with the general or special forecast work of the Bureau. These are variously classified in accordance with their duties. Thus there are more than 500 stations furnishing reports used solely in connection with the prediction of river stages. More than 140 airway weather stations have been established along commercial airways to make and report observations when needed in connection with flying, and the number of stations of this character will probably be much greater in the near future. Some of these stations make hourly reports. More than 100 stations are maintained in the western mountains for the purpose of measuring snowfall as a means of securing estimates of water supply. Then there are stations that make reports for the benefit of various important rural industries, such as cattle raising and the cultivation of cotton, sugar, rice, wheat and corn. There are also more than 200 vessel weather stations, which report their observations by radio when the ships are navigating within certain prescribed areas of the ocean.

Lastly, the Bureau enjoys the cooperation of a good-sized army of public-spirited observers who receive no pay for their services. There are upwards of 4,500 of these "cooperative" observers scattered over the United States, and about 1,400 marine observers, of many nationalities, who make regular observations at sea and send in their reports at the end of each voyage.

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21st and B Sts.
Washington, D.C.