NOTES AND REVIEWS

"Radiosonde" an Officially-Adopted Weather Bureau Term. By L. T. SAMUELS. The term "radiometeorograph" has been used quite generally in this country for designating the instrument which is attached to sounding balloons for transmitting by radio to a ground station the upper-air pressures, temperatures, and humidities during the balloon's flight.

Since the suffix of the above term implies a recording instrument, objection to its use has been made. The substitute term "radiotelemeter" then came into use but objections to this term are likewise valid in that no indication is given as to what is measured, namely, meteorological elements. Therefore, in view of these circumstances and the wide international use of radiometeorograph observations, the Weather Bureau has decided to adopt the term "radiosonde" to designate the instrument which is attached to the sounding balloon in these observations. This term is now similarly used in both French and German literature. Additional terms logically follow: "radiosonde station," "radiosonde observation," "radiosonde record," "radiosonde recorder," etc.

However, since the Federal Communications Commission requirements are that the point from which the radio signals are transmitted must be designated as the station, the term "radio aerological sounding station," instead of "radiosonde," will be used to designate the radiosonde in connection with frequency allocations utilized in this work. In accordance therewith, a "radio aerological sounding station" is defined as a "special radio transmitting station sent aloft for the purpose of obtaining information regarding atmospheric conditions."

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By AMY P. LESHER

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SOLOR OBSERVATIONS

[Meteorological Research Division, EDGAR W. WOOLARD in charge]

SOLAR RADIATION OBSERVATIONS, OCTOBER 1938

BY IRVING F. HAND

Measurements of solar radiant energy received at the surface of the earth are made at eight stations maintained by the Weather Bureau, and at nine cooperating stations maintained by other institutions. The intensity of the total radiation from sun and sky on a horizontal surface is continuously recorded (from sunrise to sunset) at all these stations by self-registering instruments; pyrheliometric measurements of the intensity of direct solar radiation at normal incidence are made at frequent intervals on clear days at three Weather Bureau stations (Washington, D. C., Madison, Wis., Lincoln, Nebr.) and at the Blue Hill Observatory of Harvard University. Occasional observations of sky polarization are taken at the Weather Bureau stations at Washington and Madison.

The geographic coordinates of the stations, and descriptions of the instrumental equipment, station exposures, and methods of observation, together with summaries of the data, obtained up to the end of 1936, will be found in the MONTHLY WEATHER REVIEW, December 1937, pp. 415 to 441; further descriptions of instruments and methods are given in Weather Bureau Circular Q.

Table 1 contains the measurements of the intensity of direct solar radiation at normal incidence, with means and their departures from normal (means based on less than 3 values are in parenthesis). At Madison and Lincoln the observations are made with the Marvin pyrheliometer; at Washington and Blue Hill they are obtained with a recording thermopile, checked by observations with a Marvin pyrheliometer at Washington and with a Smithsonian silver disk pyrheliometer at Blue Hill. The table also gives vapor pressures at 8 a. m. (75th meridian time) and at noon (local mean solar time).

Table 2 contains the average amounts of radiation received daily on a horizontal surface from both sun and sky during each week, their departures from normal, and the accumulated departures since the beginning of the year. The values at most of the stations are obtained from the records of the Eppley pyrheliometer recording on either a microammeter or a potentiometer.

Direct radiation intensities averaged below normal for October at Washington and Madison; above normal at Lincoln. The Blue Hill data for October will be included in the November REVIEW.

Total solar and sky radiation was above normal at all stations for which normals have been completed with the exception of Fresno, Twin Falls, Miami, Riverside, and Friday Harbor.

Polarization measurements made on 7 days at Madison give a mean of 53 percent with a maximum of 64 percent on the 10th. Both of these values are below the corresponding normals for the month.