

ANNOUNCEMENTS

The usual spring meeting of the Society at Washington, D. C., will be held Saturday, April 27, 1935, at 9:30 a. m. at the central office of the U. S. Weather Bureau. The meteorology section of the American Geophysical Union will meet Thursday, April 25, at 2:00 p. m. in the lecture room of the National Academy of Sciences Building, 2101 Constitution Ave., Washington.

The Los Angeles meeting, June 24-29, promises to be a large one. Dr. B. M. Varney and Mr. L. H. Daingerfield, Committee on Arrangements, report that the programs on special topics for three sessions are already arranged and that there will be at least two other sessions for miscellaneous papers. An excursion on Saturday to the San Dimas watershed project has been arranged also. The program will be published in the May Bulletin.

A Reading, Pa., branch of the

AIR MASS THUNDERSTORMS¹

By EDWARD MINSER

The effect of the cooling of non-saturated layers of air, through evaporation of rain falling through them is believed responsible for the down drafts and squall winds associated with thunderstorms.

A typical air mass storm occurring at Kansas City at noon, Aug. 27, 1934, was analyzed, the airplane soundings of Omaha and St. Louis being used to secure details of conditions aloft. In this case it was determined that evaporation of one-half gram of water per square centimeter of air column from the base of clouds (observed previous to storm at 4000 ft. by pilot) to the surface would cool this air 11 degrees C. As one cm. of rain fell during this storm, evaporation of the above quantity does not seem abnormal, the rela-

American Meteorological Society is announced by Mr. H. E. Hathaway, U. S. Weather Bureau. A meeting will be held in the offices of the Weather Bureau, at Reading, Friday, March 22, at 8 p.m. Four 15-minute illustrated talks are scheduled: J. Milo Webster, Astronomy is more than a hobby; Henry E Hathaway, Stories of the weather; Ellyn Winne, Let's soar; Karl Reber, Why not fly? There will be time for discussion. Members of the Society and others interested will be welcome.

Eclipse weather reports for February 3, 1935, have been received from 19 observers. If there are others who observed the temperature or other weather conditions during the eclipse but who refrained from submitting a report because the effect seemed negligible, they are urged to send what they got to Edward M. Brooks, Lowell House O21, Cambridge, Mass.

tive humidity at surface being 47%. The temperature previous to the storm was 30.5°C, falling to 18°C with the squall wind of 24 mps.

Utilizing the effects of evaporations, the super-adiabatic lapse rate associated with tornadoes can thus be easily accounted for, the only requirement being a stratum of non-saturated air at some level aloft through which heavy rain will fall. It is suggested that since tornadoes in the United States occur almost exclusively east of the Rocky Mountains, this stratum of relatively dry air is supplied by the tongues of Np air that frequently become a portion of warm sectors in cyclones developing in this area.—*Author's abstract.*

¹Presented at the Feb. 28, 1935, meeting of the Kansas City Seminar of the American Meteorological Society.