radio. The location of the field itself is determined by the radio-beacon located at one corner of it."—*C. F. Talman,* in Why the Weather. (Science Service).

That ground fogs are of little consequence except for landing and taking off is evident from the fact that Hawks made his transcontinental flight readily, while planes at various ports along his route were land bound by bad weather.

Discussions: Mr. Jakl asked whether some heavy thunderstorms were not too bad to fly through. Mr. Smith replied that they were, although in most cases an aviator did not stop for a thunderstorm. Dr. Humphreys indicated that contact with a severe hail storm could not be other than disastrous for an airplane. In the Annapolis storm of 1915, hail the size of baseballs demolished heavy glass skylights of the Naval Academy. An upward air current of 150 miles per hour would have been necessary to support solid ice spheres of this size. Only one in 200 lightning flashes strike the ground, but all go through the air at cloud level, hence one is more likely to be struck in the air than on the ground, said Dr. Humphreys.

FOG AND LOW CLOUDS AS RELATED TO AVIATION

By V. E. JAKL, Major Airport Control Station, U. S. Weather Bureau, Fort Crook, Nebraska

This paper supplemented Mr. Smith's in designating conditions west of Chicago, while Mr. Smith had been concerned with the meteorology of air travel east of Chicago. Its chief examples were the conditions during the long period of cloudy weather in mid-December in the Missouri and Upper Mississippi Valleys and lake region.

FOG IN THE OHIO VALLEY

By W. C. DEVEREAUX, U. S. Weather Bureau, Cincinnati, Ohio

This paper will be published in the *Monthly Weather Review,* Mar. 1930. One of the speaker's most interesting points was that air transport companies should arrange schedules to fit the weather, and thereby save much waiting for fog to evaporate, or many detours to avoid thunderstorms. In the Ohio Valley fogginess is very frequent from shortly after midnight to just after dawn. Aviators, who according to their schedule, usually arrive shortly after sunrise must often fly about for an hour or two or return to their starting point owing to this fog. Thunderstorms are seldom experienced in the daytime morning hours, but increase in number during the afternoon, reaching a relatively high maximum in the late afternoon and early evening. The best flying hours in this region, therefore, are in the late morning when thunder showers rarely occur, or in the early afternoon when fogs are seldom observed. Though the Weather Bureau can forecast fogs and thunderstorms with considerable accuracy, these forecasts cannot assist aviators greatly so long as they are on schedules not adapted to the usual hours of these phenomena.

A BUSY DAY AT THE CHICAGO AIRPORT

By F. H. WECK, Weather Bureau Office, Chicago, Illinois

Mr. Weck showed in detail the large amount of weather work neces-