

- (b) The Logger's Hazard in its Relation to Fire Weather. C. S. Cowan, Dominion Forest Service, Vancouver, B. C. 15 Minutes.
- (c) The Fire Weather Warning Service in Oregon. Charles I. Dague, U. S. Weather Bureau, Portland, Oregon. 10 Minutes.
- (d) The Fire Weather Warning Service in Washington. George W. Alexander, U. S. Weather Bureau, Seattle, Washington. 10 Minutes.
- (e) Primary Factors Governing the Action of Forest Fires. W. B. Osborne, Jr., U. S. Forest Service, Portland, Oregon. 10 Minutes.
- (f) Applied Meteorology in Forest Fire Control and the Abatement of the Smoke Nuisance. George C. Joy, State Forestry Service, Olympia, Washington. 15 Minutes.

Saturday, June 20

Automobile excursion to the Wind River Experiment Station of the U. S. Forest Service.

## THE SPRING MEETING AT WASHINGTON

### General Statement

The sixteenth meeting of the Society was held at the Weather Bureau on the evening of May 1 and the morning and afternoon of May 2. The variety of subjects presented and the stimulating symposium on solar radiation and the weather made the meeting an extremely interesting one. The fact that there were more than enough papers for three sessions, only four months after a big meeting in the same city, is a pleasing indication of the activity in meteorological research. President Milham presided over the three sessions, which, except for brief announcements were wholly occupied with the presentation and discussion of papers.

### Minutes of the 21st Meeting of the Council

Seven members of the Council convened May 1, 1925, at the Weather Bureau, Washington: Brooks, Frankenfield, Gregg, Henry, Kimball, Marvin, and Milham. President Milham opened the meeting at 1.43 p. m., and the following business was transacted:

1. The minutes of the 20th meeting were read and approved.
2. The report of the committee on revising Article VII of the Constitution was accepted, and the proposed form of Article VII ordered placed before the Society for balloting at the next annual meeting. The Council expressed its willingness to have the President appoint a nominating committee of three councilors to report to the Council.
3. The report of the Meisinger Aerological Research Fund Committee was received and its recommendations adopted. [To be published later.]
4. For the June meeting of the Society at Portland, Oregon, Mr. E. L. Wells was appointed general secretary, and Mr. M. B. Summers, associate secretary to assist in reporting the meetings. It was agreed to leave the content and arrangement of the program to the discretion of the western officers. [See program so prepared pp. 85-86, above.]
5. The Secretary was instructed to reply to Dr. Douglass' query on the formation of a Pacific Division of the Society, that if he felt urged

to organize such a division, to formulate proposals and submit them to the Council.

6. The continued publication of summaries of meteorology and climatology in the BULLETIN was approved.

7. The continued provision of binders was approved.

The Council adjourned at 2.25 p. m.

CHARLES F. BROOKS, *Secretary*.

**Treasurer's Quarterly Report**

February 1 to April 30, 1925

*Receipts*

Dues . . . . .	\$240 00
Contributions in excess of dues . . . . .	101 80
BULLETIN—subscriptions, advertisements, binders and sale of extra copies . . . . .	118 50
Interest on investments and Savings Account . . . . .	11 60
Duplicate check to replace one returned unpaid . . . . .	12 00
Monthly Weather Review subscriptions . . . . .	7 50
Contributions to Meisinger Aerological Research Fund . . . . .	38 00
	\$529 40

*Disbursements*

Printing of BULLETIN, January, February and March issues . .	\$257 00
Mailing of BULLETIN, same issues . . . . .	35 53
Clerical assistance, Secretary . . . . .	131 50
Stationery, postage and miscellaneous expenses, Secretary and Treasurer . . . . .	11 30
Check returned unpaid . . . . .	12 00
Monthly Weather Review subscriptions . . . . .	7 50
Deposited in Savings Account to credit of Meisinger Aerological Research Fund . . . . .	38 00
	\$492 83

Balance in bank, April 30, 1925 . . . . . \$1,097 92

**Papers and Discussions**

As most of the papers presented at the meeting will be published in the *Monthly Weather Review*, attention here will be confined mostly to those not to appear there. Mr. V. E. Jakl's paper, "A review of the Meisinger free balloon flights," was an excerpt from his full report to appear in the *Mo. Weather Rev.* Mr. Jakl showed that the course of Meisinger's balloon on some long flights was very closely in conformity with the isobars computed for the heights at which the balloon was maintained. On the long flight to South Carolina, through a marked high pressure area a considerable rise in temperature was noted due evidently to adiabatic heating as the air descended in the high. Lieut. F. W. Reichelderfer's paper, "The present meteorological needs of aeronautics," will probably appear soon in the *Mo. Weather Rev.* The speaker indicated clearly the need for great localization and amplification of weather forecasts for the best interests of aviation.

Dr. W. J. Humphreys' paper, "Isothermal surfaces in the ocean," will appear in the *Mo. Weather Rev.* The tendency for surface waters to flow away from the equatorial regions and to pile up in horse latitudes was clearly explained as the result of both the lower density of the less

saline waters near the equator and the dynamic action of the wind. Mr. J. B. Kincer's "Protecting orchards from frost," will be presented at some length in a later issue of the BULLETIN. Mr. E. W. Woolard's discussion, "On the mean variability in random series," was an original and interesting demonstration of how to get some idea of the degree of connection from value to value in a consecutive series of meteorological data. The accuracy of Mr. Woolard's formula was demonstrated by the results of drawing 2000 numbered beans from a bowl. This paper will appear in the *Mo. Weather Rev.* Mr. E. B. Calvert's paper on "Weather forecasting as an aid in preventing and controlling forest fires," is also to appear in the *Review*. The development of this valuable service not only in the West, where it was inaugurated a few years ago, but now also in parts of the East, especially New England, was commended in the discussion following the paper. The Bureau has the active co-operation of lumbering companies and the state and national forest officials. The need for such work was clearly demonstrated in early April this year in the northeastern States, before arrangements had been perfected in this region. An abstract of Mr. J. H. Armington's paper, "What is Smog, and what meteorological conditions favor its development," will be published in the BULLETIN later.

The abstracts and a summary of the discussion of the papers in the symposium on "Solar radiation and the weather" will be published in the next BULLETIN. The papers are appearing in full in publications of the Smithsonian Institution, (Abbot and Clayton) or the *Monthly Weather Review*. (Marvin, Kimball, and Clough).

Dr. C. C. Clark's paper on "The use of motion pictures in illustrating meteorological problems" will be published in the next BULLETIN. Mr. R. H. Weightman's paper, "Some remarks concerning the occurrence of precipitation in connection with the disturbance of February 22-23, 1925," will appear in the *Mo. Weather Rev.* In this paper, precipitation processes were first enumerated, then the three types of precipitation, warm and cold front rains and instability showers were shown and related to the low centers for every four hours during the period under consideration. The weather maps at four-hour intervals showed, as 12-hour maps could not, the successive formation of several secondaries, each ultimately replacing the earlier dominant low. Two inter-related papers followed: "Meteorological and other observations during the total solar eclipse of January 24, 1925, at Middletown, Conn.," by Prof. W. I. Milham, and "Meteorology of the solar eclipse of January 24, 1925," by Mr. S. P. Fergusson. Abstracts of these papers together with other eclipse observations will probably be published in a later BULLETIN.

In "Meteorology and superpower in the Ohio Valley," by Mr. W. C. Devereaux, superpower was defined as the great power supplied to Man by Nature through the agencies of natural gas, water, and coal. The development of all three in the Ohio Valley was discussed with especial reference to waterpower and to the necessity for accurate forecasts of rainfall and runoff in its development.

"The influence of land and water temperatures on the prevailing southeasterly wind of Texas," by Mr. I. R. Tannehill is to be published in the

*Mo. Weather Rev.* In this interesting discussion the speaker pointed out that these winds are not monsoonal, but are a part of the general circulation, at times accelerated, at times retarded by local conditions. The distribution of temperature as regards land and water differs from day to night and from season to season and directly affects the velocity of these winds.

"Tornadoes in Alabama," by Mr. W. R. Stevens will probably appear in the *Mo. Weather Rev.* In the period 1794-1925 more than 283 tornadoes have occurred in Alabama. The average yearly frequency 1882-86 was 1.6, from 1871-1924, 4.5. This increase is probably due to the increased number of observers and increased facilities for reporting them.

An abstract of the paper "Long-period recording instruments," by Mr. S. P. Fergusson will appear in a later BULLETIN.

In his paper "Destructive windstorms in Indiana, 1896-1925," Mr. J. H. Armington divided such storms into two classes, tornadoes, and straight line blows, and pointed out that, in the period under consideration, 27 such storms, of which 23 were tornadoes, each causing damage of \$50,000 or more, occurred.

At the close of the program of papers the following resolutions were read by Mr. Devereaux for the Committee on Resolutions and were unanimously carried:

(1) WHEREAS, the Meeting of the American Meteorological Society has been shown every courtesy and rendered every assistance in the way of accommodations in instrumental apparatus by the Weather Bureau.

RESOLVED, that the Society expresses its most sincere appreciation of the arrangements and the cordial welcome extended to it by the Chief of the Bureau.

(2) WHEREAS, the symposium on Solar Radiation and Weather at this meeting was one of the most interesting and instructive features on the program.

RESOLVED, that the Society is interested in holding a similar symposium at future meetings on the major subjects of interest to meteorologists.

(3) WHEREAS, the Society has had the pleasure of observing for the first time two very interesting and valuable films on atmosphere.

RESOLVED, that the Society extend an expression of thanks to Mr. Fred W. Perkins, in charge of the film exhibit of the Department of Agriculture, and resolved further, that the Secretary of this Society transmit copies of these resolutions to Mr. Perkins through the Hon. Secretary of Agriculture.

(4) RESOLVED, that this Society reaffirms the resolutions adopted at a previous meeting which reads as follows: "the Society is interested in the adaptation of the weather forecasts to the needs of specific industries, such as sugar growing, citrus raising, harvesting crops and protection of crops by spraying . . . and would encourage the extension of this class of forecasts to all industries and activities which are depend-

ent on weather changes." This meeting wishes to add to the above specified industries the extensions needed to serve aviation better, the fire weather forecasts and weather service for the development and utilization of the superpower electrical developments.

*Committee on Resolutions,*

W. C. DEVEREAUX,

I. R. TANNEHILL.

As there was no further business the meeting was then adjourned.

---

### THE USE OF MOTION PICTURES IN ILLUSTRATING METEOROLOGICAL PROBLEMS

By C. C. CLARK,

Asst. Chief Weather Bureau

"Diffusing useful information," which may be said to include the information which the Weather Bureau prepares and distributes, is the great object of the Department of Agriculture and the Weather Bureau. In fact, that is what the Department of Agriculture was organized for in 1889, when its organic act was established, providing that "There shall be at the seat of Government a Department of Agriculture, the general design and duties of which shall be to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture, in the most general and comprehensive sense of that word."

Similarly, this is one of the main purposes of the Weather Bureau, which was attached to the Department of Agriculture, we all know, in 1891, by an Act which particularly charged this Bureau with "charge of the forecasting of weather, the issue of storm warnings, the display of weather and flood signals for the benefit of agriculture, commerce, and navigation, etc."

The Department of Agriculture, with full realization of the changes taking place in the progress and evolution of our Government and civilization, appreciated some ten years ago that a recent and most effective method of transmitting information was through the agency of motion pictures, and so they organized in our Department an Office of Motion Pictures, under the Extension Service, and have prepared and put out to the general public over 200 films explaining, describing and carrying the problems of all the bureaus of this great Department to the public.

The Department of Agriculture makes three general types of films, the first type and probably the simplest, is the "Straight Educational Film," in which facts are recited in as interesting a manner as possible, but without any attempt to give a human interest story. The second type is the "Slender Story Type," in which facts are linked together by a story of someone's experiences. The third is the "Dramatic or Heavier Story Type." The films of the Weather Bureau now completed are of the "Straight Educational Film" type, but other films are in prospect which will be of the "Slender Story Type," showing general methods of work of the Weather Bureau. Among these future films will be some entitled, "Back of the Weather Forecast," "Clouds," "Fruit-