

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
WASHINGTON

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MEMO

(Climatological Services Memorandum No. 91)

WASHINGTON, D.C.
1-2-62

MEMORANDUM

TO : Area and State Climatologists, Field Aides (HC), Field Aides, WRPCs, River Forecast Centers, River District Offices, and Area Engineers (with copies to Regional Offices for information)

FROM : Director, Climatology

SUBJECT: Climatological Services Memorandum No. 91

1. AMS FOURTH CONFERENCE ON AGRICULTURAL METEOROLOGY: The American Meteorological Society's Fourth Conference on Agricultural Meteorology was held in St. Louis on November 27-28, 1961. The following remarks were written by the O/C members who attended the Conference.

W. C. Palmer. In spite of having been somewhat overshadowed by meeting jointly with the American Society of Agronomy, the Conference was a huge success. The feeling of being overshadowed stemmed from the large attendance by members of the Agronomy Society and the fact that as many as eight sessions were underway simultaneously. There must have been approximately 1,000 people in some of the joint sessions; obviously meteorologists were a little in the minority on those occasions.

The disadvantage of being "lost in the crowd" was more than offset by the opportunity for having many agricultural scientists in attendance at all the sessions on agricultural meteorology. Of course, it also gave the meteorologists a chance to hear some of the papers on soil and water management, crop production and the like and thereby learn more about agricultural problems.

One could not fail to be impressed by the increasing attention which is being given to the weather factor by those engaged in agronomic research and education. Numerous papers, such as those given by H. B. Schultz of the University of California and A. V. Havens of Rutgers, demonstrated the practicability of using a meteorological approach to certain aspects of agricultural problems.

There was much interest shown, both in some sessions and in the halls, for the agricultural weather service programs which the Weather Bureau is undertaking. It was really encouraging to note the broadened viewpoint of agricultural weather service which has developed in recent years. A survey taken a few years ago revealed that, with few exceptions, the leaders in the agricultural field regarded more accurate and longer range forecasts as the principal or only service which the Weather Bureau should and could provide to agriculture. At this meeting it was obvious that a more realistic understanding of the capabilities and limitations of meteorology now prevails. Climatology is being recognized as an asset in planning, specialized short range forecasts are

being used operationally, and people are now aware that worthwhile seasonal and annual forecasts are not available merely for the asking.

One of the speakers lamented the fact that numerous public statements by ill-informed people--as well as some statements by those who should know better--have misrepresented the capabilities and immediate expectancies of the science of meteorology. He made the point that some of the perfection in forecasting which the public is being led to expect "tomorrow" may be 100 years away. It was apparent that a few in his audience had been so impressed by optimistic public statements that they regarded the speaker as a pessimist rather than an informative spokesman.

It was encouraging to find that the Agricultural Extension Service in a few states has included agricultural meteorology as a part of their information job. They are trying to inform their people in this field. They are encouraging their agronomy specialists to prepare articles which relate their subject matter to available meteorological and climatological information. At least in Iowa, meteorology and climatology are being introduced into the 4-H Club program. These extension service people are helping to lay the groundwork for communication between the agriculturalists and the meteorologists. There is still a large communications problem, but the last few years have produced encouraging progress.

Interdisciplinary meetings such as this are very refreshing. They supply the meteorologists and climatologists with tangible evidence of the fruits of their struggles. After all, the science of meteorology is useful only when it helps to provide a basis for decision making. Whereas meetings devoted exclusively to meteorology are sometimes a little discouraging, joint meetings such as this are definitely encouraging in that they point out ways in which relatively simple applications of meteorological knowledge can be useful.

These impressions of the meeting are presented here with the hope that those who were unable to attend will grasp a little of the stimulation and encouragement which came to those who were fortunate enough to have been there. Dr. Shaw and the members of his committee deserve much credit for having arranged this excellent program.

L. A. Joos. Mr. Palmer has made an excellent summary of impressions with which I heartily concur. Weather Bureau climatologists have been loyal supporters of these AMS conferences as shown by their attendance at the earlier meetings in Madison, Wisconsin (spring 1957), New Haven, Connecticut (fall 1958), and Kansas City, Missouri (spring 1960). This time the O/C group totalled eleven people of whom four were on the program. However, the Climatology delegation at this meeting was exceeded in size by the group representing the Public and Agricultural Forecasts Section under the leadership of Mr. L. L. Means. We take this to be a happy omen and welcome the agricultural research forecasters to share the interests and opportunities of a field in which Weather Bureau climatologists have been active for generations. Besides sharing a technical program both informative and stimulating, the O/C people and the agricultural forecasters achieved much direct liaison which will pay off in greater understanding and more useful cooperation during the months to come.

2. THERMOMETER TESTS: Final arrangements have been completed for a new series of tests involving the Palmer dial thermometer, a new Weston dial thermometer, a fibre-glass tubular thermometer shield, and a tubular shield made of procelain-covered steel. Comparisons will be between various combinations and separately with glass maximum and minimum thermometers in a cotton region shelter and with an aspirated thermohm. The site of the experiment is the WB Observational Test and Development Center which was formerly at Silver Hill, Maryland, but was moved to Sterling, Virginia, about a year ago.

The basic tests are planned to begin in December and to run through August 1962. The goal is to evaluate a dial thermometer and a light-weight shield for possible use by cooperative observers.

3. STATE CLIMATOLOGIST MEETING: State Climatologists from the Southeast Area met at Chattanooga, Tennessee, on October 25-27, 1961. The meeting was under the direction of Area Climatologist C. K. Vestal. L. A. Joos was the Central Office representative. Full-time or acting State Climatologists in attendance were O. K. Anderson, Ky.; M. H. Bailey, Tenn.; K. D. Butson, Fla.; A. B. Long, Ala.; H. S. Carter, Ga.; A. V. Hardy, N. C.; Nathan Kronberg, S. C.; J. T. Harden, Va.; and Ralph Sanders, La.-Miss. S. G. Holbrook was able to attend the meeting en route to his new assignment as State Climatologist for Oklahoma. J. A. Riley, Jr. and J. W. Measells of F&SR's Agricultural Weather Service attended a portion of the meeting.

The WRPC staff under the leadership of V. D. Steves did an excellent job as host and also contributed substantially to the program discussions. The attendance and interest shown by W. L. Thompson, Fort Worth Regional Administrative Officer were greatly appreciated by all.

The meeting agenda covered both routine and non-routine activities of State Climatologists with special emphasis on development and research activities. Meetings were held in the Central and Northwest Areas during April 1961 while those for the Southwest and Northeast Areas are planned in 1962.

4. EDUCATIONAL PROFILE, CLIMATOLOGISTS: The average number of semester hours credit in meteorology, in math and in physics for State and Area Climatologists is given below:

	State Climatologists GS-11	State Climatologists GS-12	Area Climatologists
Meteorology	18	33	42
Math	18	23	27
Physics	12	17	16

The average length of Weather Bureau service for all State Climatologists is 22 years; for all Area Climatologists 17 years; average age of State Climatologists is 48; of Area Climatologists 41.

5. CHANGES IN STATE CLIMATOLOGISTS: Mr. David Smedley has moved from the Territorial Climatologist job in San Juan to head the Foreign Area Section in the O/C; Mr. Howard Engelbrecht has gone from State Climatologist for Maryland-Delaware to an assignment in the General Circulation Research Laboratory at Suitland, Maryland; and Mr. Stanley Holbrook has left the NWRC to become Oklahoma State Climatologist.

Dr. A. Boyd Pack, State Climatologist for South Dakota, has been selected as New York State Climatologist; A. Delbert Peterson, Principal Assistant at Yakima, as Maryland-Delaware State Climatologist; and V. J. Creasi, of the O/C, as Territorial Climatologist for Puerto Rico and the Virgin Islands.

6. WEATHERWISE: Last year 4,036 subscriptions to Weatherwise were purchased, primarily for distribution to cooperative observers. This year we plan to buy the same number although the price has gone up from \$2.10 to \$2.20 per subscription.

It will be helpful to us in evaluating the usefulness of this magazine to cooperative observers to have Field Aides (HC), WRPC and other supervisory offices comment on the reaction of the recipients and the apparent value of the magazine to the cooperators.

WRPCs are asked to collect such comments and forward them to us.

7. COOLING DEGREE DAY SYSTEM: The search for a cooling-degree day system has been resumed in the O/C. In this connection, data on power consumption by air conditioning installations in various sections of the country are needed. Any State Climatologist having or knowing of such data is requested to send a description of them to the Office of Climatology, Attn: C-4.4. We are especially interested in knowing the number of seasons of data available and the unit of time of meter readings or other basis for power consumption (daily, weekly, monthly). No data should be forwarded at this time.

8. STATE CLIMATOLOGIST PROJECTS: At the recent Chattanooga State Climatologist meeting the suggestion was made that State Climatologists include in their non-periodic activity reports an item similar to an abstract of any investigative projects which are under way or contemplated. These abstracts would briefly state the problem, the information available and the plan of attack. Such abstracts could then be printed in CSM with a minimum of editing. Exchange of information at an early stage would avoid duplication and permit the pooling of ideas when these would be of greatest benefit.

We favor this approach and encourage State Climatologists to include such information in their activity reports.

9. CSM INDEX: An index, covering CSM 81 through 90, has been issued to all regular recipients of Climatological Services Memorandums.

10. NUMBER OF STATIONS PUBLISHED IN CD: The following numbers of stations were published in CDs for June 1961:

Temperature table	5568
Hourly Precipitation stations (Noted in Station Index but not published in CD)	3014
Evaporation table	330
Supplemental Data table	319
Soil Temperature table	61

The total pages required for the month's CDs was 992 and the average lag in printing (excluding Alaska, Hawaii and the Pacific) was 33 days.

11. CLIMATOLOGICAL INFORMATION FOR HEALTH RESORTS: There is increasing interest in providing climatological information regarding health resorts and recreation areas for use by the medical profession and others. The possibility of preparing more such material, possibly in the form of an atlas of Medico-Climatology, was discussed at a recent meeting at the Department of Commerce with officials of the Department of Health, Education and Welfare. There will be further exploration of the atlas idea. In the meantime, we are exploring means for giving more emphasis to such locations in the issuance of a special series similar to the substation summaries, and by including appropriate data in the National Atlas Charts. Suggestions will be welcomed.

12. BINDING OF CLIMATOLOGICAL DATA BY STATES: We have reconsidered the matter of the file of CDs for each SC's home state. We feel that cloth-bound volumes will better safeguard the file copies, present a more attractive appearance and be easier to use. Our information is that all State Climatologists have bound CDs for their own states through 1951. We have initiated action to have the NWRC assemble sets of CD and we will have one volume bound for each State Climatologist for his state(s) covering the period 1952-1956.

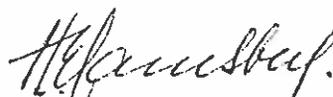
If any State Climatologist does not have bound volumes of CD for his own state through 1951 this office should be advised.

13. PUBLICATIONS FURNISHED STATE AND AREA CLIMATOLOGISTS SINCE CSM 90.

"Frequency Distributions of Monthly Average Temperature in South Carolina" by Kronberg, Purvis and Jones.

"The Climate of the Northeast - Spring and Fall Low-Temperature Probabilities" - Havens and McGuire.

"The Evapotranspiration Problem" by van der Bijl, Kansas State University, Manhattan, Kansas.


H. D. Landsberg

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