

UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
Washington 25, D. C.

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MEMORANDUM

TO: State Climatologists, Section Centers, Hydroclimatic Inspectors, Field Aides, WRPCs, River District Offices, and Area Engineers. (With copies to Regional Offices for information.)

FROM: Climatological Services Division

SUBJECT: Climatological Service Memorandum No. 45

GENERAL

1. DISCONTINUANCE OF SECTION CENTERS: It is easy to do a job with unlimited resources, but it challenges the ingenuity to do it equally well, or better, with less. The reorganization of the climatological field service is designed to meet this challenge and, we believe, it will be better than the formerly planned consolidation of Section Centers.

Most of us dislike change. Usually it is outward circumstances that force change upon us. Often these circumstances cannot be argued with -- notably when they are represented by the firm figures of an appropriations act. If confronted with a reduced budget we are free to grumble, but it is better to face the facts. This is the situation we find ourselves in with regard to the climatic field service.

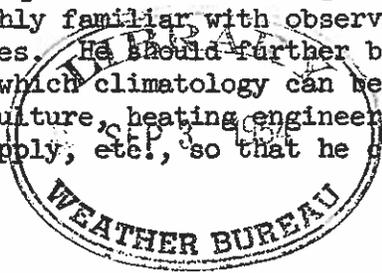
In view of the critical fiscal problems there has not been time for much consultation, nor is there much point in bewailing difficulties in advance of experience. Instead let's make the new system work. We are counting on your help to accomplish this.

Of course, we have plans for a better field service in climatology. We want to share the general outline of these plans with you. They are conceived to be consistent with present and anticipated budgetary realities.

Most important among the plans is a high caliber of professional competency. A cynical critic once defined a climatologist as a person who can add a column of figures and divide by thirty and as an afterthought he added "and then there are a few ex-forecasters who wanted to get out of shift work". We contend that a climatologist is a professional meteorologist who specializes in climatology. In addition to an adequate academic background in general meteorology he should be thoroughly familiar with observational techniques and statistical procedures. He should further be well acquainted with many special areas to which climatology can be applied as for example, problems in agriculture, heating engineering, air conditioning, architecture, water supply, etc., so that he can serve the general public intelligently.

Memo - (Climatological Service Memorandum No. 45)

Washington, D.C.



1. (Continued):

It is our intention to fill climatological jobs with persons who qualify by education and experience. In order to make it attractive for people to specialize in climatology there have to be career opportunities. We hope to be able to create these. We visualize that in the future the incipient climatologist, after finishing his formal training, will start as a field inspector so that he might become thoroughly familiar with the raw material of much of our climatological work, the station and substation observations. After that indoctrination, work as a state climatologist in one of the smaller states would get him acquainted with broad general service to the public. Further advancement to a bigger state or to one of the Weather Record Processing Centers is the next step. Especially competent, experienced and service minded climatological specialists would be selected to become area climatologists of which we hope to have four more or to fill the higher positions at the National Weather Records Center or in the Sections of the Climatological Division.

The real key man in all our plans is the State Climatologist. As soon as possible we hope to make these positions full-time jobs. We do not want the state climatologists to become bogged down with network administration, checking of forms, or similar sub-professional activities. We visualize the following as the most important duties of these positions.

1. Maintain adequate files of records for the state, and amplify such records as necessary for the purposes of state climatology.
2. Foster progress for publishing timely current reports of monthly and other climatological data, preferably along state lines.
3. In cooperation with the Area Climatologist and the Central Office suggest and assist with the development of new climatic studies, etc. applicable to the general economy of the state.
4. Establish and maintain contacts with State agencies interested in the development or application of climatic data and records.
5. Maintain approved program for issuance of weekly reports on weather and crop progress.
6. Seek to develop interest in and use of climatological and hydrologic information by State agencies and state-wide channels of information, especially those concerned with agriculture.
7. Seek ways to develop State cooperation for special climatological studies and publications to be produced cooperatively at State expense. These should be planned to conform to guide lines issued by the Central Office in order to obtain a reasonably comparable content and format for all states.
8. Cooperate with MIC's of other Weather Bureau Office, the area climatologist, the area hydrologic engineer and the Central Office, and give all possible assistance to make the climatological network and derived data of maximum use to all public interests within the state.

1. (Continued):

9. "Act as the personal representative of the Weather Bureau with the cooperative or automatic rain gage observers in the State including travel to substations when special problems or circumstances are evident or it is deemed by the State Climatologist and the Regional Director that visits by the State Climatologist will best foster high morale and satisfactory personal relationships within the network".

The precise formulation of these duties is still in the making.

We want to encourage climatological investigations which lead to general advancement of the science and better applications of the data. We are exploring the opportunities for advanced training in climatology and hope to get authority to send some people to school.

All of this will take time. We will spare no effort to get approval and funds for this work. In the meantime we will review all our procedures in order to assure that they are efficient and up-to-date. For a while Economy (with a big capital "E") will remain an important by-word while SERVICE (all capitalized) is our primary aim.

2. BULLETIN W SUPPLEMENT: Three sections of Bulletin W-Supplement, New York, North Carolina, and South Carolina, have now been printed.
3. DIVISION AND STATE NORMALS: It has been noted that not all sections have applied weighting factors to obtain the above data for the period prior to 1948 for publication in Climatological Data.

It is, therefore, requested that each Section Director inform the WRPC which years of Division and State Normal Data have been weighted in Table #1 so that they can be properly identified for publication.

4. PUBLICATION IN CLIMATOLOGICAL DATA OF DIVISION AND STATE AVERAGE AND DEPARTURES: The following letter was received from a State Climatologists office: "Recently, while studying Table 2 data for May, preparatory to writing the monthly summary, we were struck by the misleading figure for the departure from normal temperature in the northern division of Idaho. Only seven of the stations in that division had average temperatures below normal (none more than  $-1.7^{\circ}$ ), yet the division average was  $0.4^{\circ}$  below the 56-year mean. The average of departures at 26 individual stations is  $0.5^{\circ}$  above normal. The long-period mean or normal for the division resulted, of course, from a summarization of monthly averages based on reports from a constantly changing network of stations.

"This one example just brings to mind the complicating factors involved in the problem and seems to indicate that a division or state average is of limited value. Because an areal temperature average may be based on a preponderance of stations at low elevations, or high elevations, or at high or low latitudes, the relative accuracy of the average can vary greatly from month to month and year to year. What can be said against the areal average for temperature, especially in regions of varied topography, can be said, perhaps more strongly, against areal precipitation averages.

4. (Continued):

"We would prefer to see division and state averages omitted from the published data. Departures from normal for individual stations, we believe, adequately tell the story. When plotted on a map these departures produce fairly well defined patterns which have far more meaning than an areal average. For precipitation, the data should be in terms of percent of normal.

"Perhaps the omission of division and state averages from published data is not practical (at least until normals can be established for all substations), but one finds it difficult to prepare a summary in which he might, in all truth, say, 'the average temperatures in the northern division were mostly above normal', while the table carries a negative departure for the division".

We are considering the omission of division and state averages and departures, but before we take this step we would like to find out if there is any necessity for continuing these values. If possible we would like to have a list of actual users of this type of data, and also your opinion as to what the results would be of the omission of these values.

5. EARLIER TRANSMITTAL OF WEEKLY CROP MESSAGE: In order to advance the publication time of the Weekly Weather and Crop Bulletin, National Summary by 24 hours you have had the instructions in Circular Letter 21-54, dated July 19, 1954, and it is now desirable (effective on receipt of this CSM) to advance the filing time of the Weekly Weather and Crop Summary messages transmitted to Washington (Ref. Par. C-0636, Chapter 6, Volume III Weather Bureau Manual) to noon, local time, of Monday of each week. Messages will be filed to arrive promptly at the Central Office. The transmittal by Western Union day message instead of by night letter is therefore indicated in some cases. We will also examine the time required for delivery of messages through P.B.S. channels and if and when such action is indicated you may be asked to transmit by Western Union.

In those States where we have cooperation with the State Statistician the message filed as early as possible. We do not, however, wish you at this time to contact the State Statistician in this regard. Before this is done we would like to know the last day of the week for which his schedule contains crop information and what hour you receive his summary. After review of this information from all concerned we will advise you further in this regard.

6. SUBSTATION NAMES: (The following instruction has been sent to the WRPC's). In recent years the CAA has offered considerable opposition to its taking non-aviation observations at many of its CAA stations. This culminated in Multiple Address Letter No. 93-52 which requested the removal of certain precipitation gages from CAA observership. In some cases the gages were not moved physically, but an observer was appointed not in connection with the CAA.

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6. (Continued):

Because of the strong stand the CAA has taken in many instances, and the confusion that is likely to arise by continuing to list the CAA as observer after severing connections with the gage, it is our opinion that the term CAA should not appear in the station or observer name. The gage must continue to be treated, however, as part of the same station for record purposes.

Therefore, in all such cases, the practice outlined below should be followed:

- A. Drop "CAA" from the station name in all substation records and and publications.
- B. Do not change the CD number assigned; on SSA listing and Station History Listing, indicate no break in record by coding 3 in "record ends" data.
- C. In the MCD index give credit to CAA for only that part of the observations it takes; give credit to the cooperative observer for his portion of the program.

Example:

<u>Station</u>	<u>Index No.</u>	<u>Observer</u>	<u>Refer to Tables</u>
Belgrade AP	0622	C.A.A. John Doe	2357 C

- 7. TEXT REVISION FOR "CLIMATE OF THE STATES": (Ref. CSM 44, Item 2). Several text revisions have been received to date. The South Carolina revision listed a number of references (such as state publications) that were used in developing the revised text. We like this idea and suggest that all revisions should carry a short bibliography of this type at the end. Offices that have already sent in text revisions are asked to forward such a bibliography.

FOR WRPC's

- 8. AMENDMENT TO PROCEDURES: (Par. 1009.652. When reference notes are next retyped separate the 7th note into two notes by making a separate entry of the sentence beginning with "Evaporation is measured etc."
- 9. PUBLICATION OF LCD - SUPPLEMENT FOR STATIONS WHERE HOURS OF OPERATION HAVE BEEN REDUCED (RE: CSM 36 - Item 9): The last sentence of the reference item should be changed to: "The Superintendent of Documents should be advised of the discontinuance of the Supplement and should be furnished a list of subscribers who should receive refunds along with information as to the period of unexpired subscription".

This change is necessary since the Supplement now carries a subscription price.

*H. E. Landsberg*  
H. E. Landsberg, Chief  
Climatological Services Division

GUIDE TO CLIMATOLOGICAL SERVICE MEMORANDUM NO. 45.

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