

UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON

November 7, 1956

IN REPLY, PLEASE ADDRESS  
CHIEF, U. S. WEATHER BUREAU  
WASHINGTON 25, D. C.  
AND REFER TO

MEMORANDUM

C-3.1

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

FROM: Office of Climatology

SUBJECT: Climatological Service Memorandum No. 56

GENERAL

1. EVAPORATION PROGRAM:

Recent developments in the evaporation program make it especially important that the instructions in Item 5, C. S. M. No. 35, be reviewed.

Forms 612-25 (1024) are no longer forwarded to the Central Office. Hydrologic Services Division is engaged in the preparation of maps for certain states or areas showing annual and seasonal evaporation from lakes and reservoirs, based on pan evaporation records. Eventually, they hope to complete this project for the whole country. In carrying out this project, the Division is dependent primarily on the published record and its file of station descriptions.

It is important, therefore, not only that the evaporation station exposure be maintained at prescribed standards, but also that a complete and up-to-date history and description (including photographs) be kept of each station. In order to accomplish this, it is urged that each substation inspector obtain a complete file of the latest station description, Form 531-6 (4029A) for each evaporation station in his area. This will enable him to keep the descriptions up-to-date as routine visits are made, or to prepare a form if none is available. The WRPCs and State Climatologists are asked to assist in the program and to make sure that the inspector has copies of the latest descriptions.

In many cases, the equipment is wholly or partially owned by a cooperator. Tact must therefore be used in suggesting changes in station exposure or layout if it deviates from the recommended standard. If there is any question, the matter should be presented to the WRPC, State Climatologist, Area Engineer, or other appropriate local Weather Bureau official.

The Area Engineer represents the Hydrologic Services Division in the evaporation program and matters pertaining to establishment, closing, or changes in location should be coordinated with him.

FILE: 522

MEMO

(Climatological Service Memorandum No. 56)

WASHINGTON, D. C.  
11-7-56

2. CLEARANCE OF MANUSCRIPTS FOR PUBLICATION, TALKS, AND BROADCASTS.

As the activities of the state climatologist increase, he will probably be called upon to present formal and informal talks to conferences, group meetings and scientific meetings. This item is just a reminder that Chapter III, D-4304 of the Weather Bureau manual describes the requirements for clearance. Especially noteworthy are the items D-4304 b, c, d, which specify clearance required when W. B. affiliation is indicated, presentation on official time, and travel at government expense respectively. It is recommended that all state and area climatologists review the referenced chapter of the manual.

3. SUBSTATION HISTORIES. It has come to our attention that several important stations with long periods of record have been omitted from published substation histories presumably because the Section Center did not have historical information on some closed stations. We would like for each climatologist to note any omission that comes to his attention for his state and to furnish to this office any supporting information available.

4. FEDERAL FLOOD INSURANCE ACT OF 1956 - PUBLIC LAW 1016 - 84TH CONGRESS - CHAPTER 1025 - 3.3732. The main purpose of this act is to authorize the establishment of a program of Federal insurance and reinsurance against the risks of loss resulting from flood as hereinafter defined and to require a study and report on insurance and reinsurance against still other natural disaster perils to the extent that such insurance or reinsurance is not available on reasonable terms and conditions from other public or private sources.

Of particular interest to most of us is the definition of the term "Flood" as used in this Act, to wit: "Flood" includes any flood, tidal wave, wave wash, or other abnormally high tidal water, deluge, or the water component of any hurricane or other severe storm, surface landslide due to excess moisture, and shall have such other meaning as may be prescribed by regulation of the Administrator. (By Administrator is meant the Housing and Home Finance Administrator.)

5. FILE OF UNUSUAL OR OUTSTANDING WEATHER EVENTS. State Climatologists who have not done so are encouraged to establish, as time permits, a file (card or otherwise) of unusual and outstanding weather occurrences in the state. Items recorded may vary from state to state and could well include such events as severe storms, dust storms, heat and cold waves, tornadoes etc.. Such a file should be of assistance in furnishing information on these happenings.

6. NATIONAL INVENTORY OF SOIL AND WATER CONSERVATION NEEDS. The Northwestern Area Climatologist has furnished us the definition of capability groupings used by SCS experts in preparing Soil Association maps. The breakdown into land capability units is the important classification for present land use and for recommended trends or proposed changes in future crop and pasture acreages. The definition follows:

"Soil Survey Interpretations: Capability Groupings. A. A. Klingebiel, USDA, Soil Conservation Service. (From Agronomy Abstracts 1956 Annual

Meetings.. page 47).

"The capability classification is one of several different kinds of interpretive soil groupings that are made for agricultural purposes. The capability groups provide information at three different levels of generalization, namely: class, subclass, and unit.

"In the early stages of conservation planning, it is important to know the location, amount, and general suitability of the soil for various uses. Soil maps interpreted into the 8 capability classes provide this general information. These classes indicate that the alternative uses of the land become less and the risks progressively greater from Class I to Class VIII land.

"In addition to the information provided at the class level, the capability subclass denotes the major kind of conservation problems. Four kinds of hazards are recognized at the subclass level: (1) erosion and runoff, (2) wetness and drainage, (3) rootzone and tillage limitations, and (4) climatic limitations.

"Within the capability classification the capability unit provides the most specific and detailed information for application to specific fields. It is a reliable guide to use in planning a conservation program on a farm or ranch for long time sustained production. A capability unit is a grouping of soils that are nearly alike in potentials for plant growth and responses to management."

7. REQUEST FOR SPECIAL DATA TABULATIONS. A mid-west almanac author has written a number of state climatologists asking for special tabulations of data, and stating that the regular reports are nearly three months behind time. We think the following reply from the Illinois State Climatologist, Mr. L. A. Joos, is particularly good:

"This is in reply to your air mail request of September 19 which was received today. The precipitation and temperature data for Illinois for 1956 is available in the publication CLIMATOLOGICAL DATA for ILLINOIS. I presume this publication is available in your library since you quote from it in your almanac. You will note that monthly state averages of temperature and precipitation are no longer being computed or published since such statistics for a state the size of Illinois are often of questionable value and may be subject to misinterpretation. However the monthly values for northern, central, and southern districts are available.

"Your statement that "the regular reports" are "nearly three months behind time" does not check with the facts. The Illinois summary for July reached subscribers less than six weeks after the close of the month. Summaries for first order Weather Bureau stations reached subscribers about 10 days after the close of the month. Preliminary values for weekly periods are available in WEEKLY WEATHER & CROP BULLETIN only 4 or 5 days after the close of each period. It hardly seems reasonable to characterize such service as "too slow".

"I will send you the August values of temperature and precipitation for each of the three Illinois districts as soon as they are available in this office which will be within a very few days. The only data for September that we have available is contained in ILLINOIS WEEKLY WEATHER & CROP BULLETIN, copies of which are enclosed. The next two issues of that publication covering the remainder of September will also be sent to you."

8. WIDER DISSEMINATION OF CROP-WEATHER INFORMATION. The Missouri State Climatologist sends by mail a copy of his Monday crop telegrams to WBO, St. Louis and WBAS, Kansas City, so that they can release the crop weather stories on their city-wide teletype network at 11 AM CST on Tuesday.

Similar arrangements may be practicable at the other state climatologist's offices.

9. STATUS OF BULLETIN W SUPPLEMENT (1931-1952). Printing and distribution of the Bulletin W Supplement has been accomplished for the following states:

Arizona	Michigan	North Carolina	South Dakota
Colorado	Minnesota	North Dakota	Virginia
Florida	Montana	Nebraska	Washington
Kansas	New Jersey	Oklahoma	Wisconsin
Kentucky	New Mexico	Oregon	Wyoming
Maryland-Delaware	New York	South Carolina	

The supplements for Alabama, Georgia, Iowa, Louisiana, and Ohio are in the process of printing. The percentage of work done on the preparation of other state's supplements as of October 1, 1956 are: Arkansas 90%, California 10%, Idaho 45%, Illinois 95%, Indiana 0%, Mississippi 14%, Missouri 2%, Nevada 78%, New England 55%, Pennsylvania 0%, Tennessee 98%, Texas 0%, Utah 78%, West Virginia 19%. Alaska is 45% completed.

10. ROUTING OF FORM 612-13 (FORMERLY 1006). (Reference Item 13, CSM #54) The numerous replies received from the State Climatologists, the WRPCs, and River District Offices regarding the proposal by the State Climatologist of California that the routing of Forms 612-13 be modified as outlined in CSM 54, Item 13 have been reviewed. Although a number of offices favored the change, there was not sufficient justification to warrant a change at this time.

11. COST OF PUNCHING BACKLOG 1009 RECORDS. Although the cost of punching backlog substation records depends on the amount of work involved in editing the forms required, we have found that \$7.00 per station year is an average figure that can be used in preparing estimates.

12. HYDROLOGIC BULLETINS. Any issues of Hydrologic Bulletins that are surplus should be sent to the NWRC.

13. CLIMATOLOGICAL PRACTICES, WMO. A copy of Chapter 8 "Climatological Practices" of Volume I of WMO Technical Regulations has been sent to each State and Area Climatologist's office.

14. CLIMATOLOGICAL DATA, NATIONAL SUMMARY. There are available a few bound copies of Climatological Data, National Summary for 1953 and 1954. Any Area or State Climatologist who does not have these volumes should advise us.

15. ACTIVITIES OF STATE CLIMATOLOGISTS. The following items were taken from a recent activity report of the Wisconsin State Climatologist:

"Clyde Bay, University of Wisconsin, is planning to refine soil moisture measurements this winter to meet our reporting criteria. Evaporation and soil moisture data under controlled conditions are now being collected at Hancock Agricultural Experiment Station.

"During the summer cooperation, has continued with Dr. Seymour Crepea on the Allergy study. Dr. William Stone, University of Wisconsin, investigated weather through the cooperation of this office in connection with the seasonal variation of gamma globulin in the blood stream.

"Dr. Ionel Rapaport, University of Wisconsin, continuing his study of mongolism and cataracts, is finding a high correlation to years with hot summers. We are investigating this aspect further as he now plans to proceed with a laboratory controlled experiment with malformation of rats and temperatures (climate).

"Professor Suomi (University of Wisconsin) and Peter Kuhn (United States Weather Bureau) have developed an economical net radiometer that will be discussed at Asheville, North Carolina American Meteorological Society meeting.

"Jen Yu Wang and R. A. Bryson published a Study of Phytometeorological Effects on the Growth and Development of Peas this summer."

16. INFLUENCE OF WIND ON PRECIPITATION MEASUREMENTS AT HIGH ALTITUDES. The above pamphlet, by C. C. Warnick, describes studies made in Idaho during the period 1948 to 1955. It is issued by the University of Idaho, Moscow, Idaho as Bulletin No. 10, April, 1956.

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for H. E. Landsberg  
Director, Office of Climatology

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