

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

File No. 922

June 12, 1952

0-2.13

MEMORANDUM

TO: 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. 28

INSTRUCTIONS

1. HYDROLOGIC BULLETIN FILE: (REFERENCE C.S.M. No. 27, Item 3)
The referenced item provides that all surplus Hydrologic Bulletins may be discarded after June 30, 1952. Before these surplus copies are discarded the following distribution should be made:

- (a) One copy of each issue, regular and supplemental for all districts except the LM-WG and the South-western to:

Department of Meteorology
University of Utah
Salt Lake City 1, Utah
Attention: Professor J. Vern Hales

- (b) Two copies of each supplement to the Central Office Library.
- (c) Up to six copies of each issue and each supplement to the National Weather Records Center at Asheville, accompanied by an inventory on Form 1078.

The National Weather Records Center now has one complete set for all districts.

Complete, or nearly complete, sets of Hydrologic Bulletins have been turned over to the following depository libraries:

1. North Atlantic District

Massachusetts Institute of Technology Library, Cambridge,
Massachusetts
Library of Congress, Washington, D. C.
College of the City of New York Library, New York, New York
New York Public Library, Astor Branch, New York, New York
Columbia University Library, New York, New York
Pennsylvania State Library, Harrisburg, Pennsylvania
Free Library of Philadelphia, Philadelphia, Pennsylvania
Virginia State Library, Richmond, Virginia

2. Southeastern District

University of Georgia Library, Athens, Georgia
 Library of Congress, Washington, D. C.
 University of Florida Library, Gainesville, Florida
 Chicago Public Library, Chicago, Illinois
 University of North Carolina Library, Chapel Hill,
 North Carolina
 Duke University Library, Durham, North Carolina

3. Ohio River District

Library of Congress, Washington, D. C.
 University of Kentucky Library, Lexington, Kentucky
 Massachusetts Institute of Technology Library, Cambridge,
 Massachusetts
 College of the City of New York Library, New York, New York
 New York Public Library, Astor Branch, New York, New York
 Columbia University Library, New York, New York
 Pennsylvania State Library, Harrisburg, Pennsylvania
 Free Library of Philadelphia, Department of Public Documents
 Philadelphia, Pennsylvania

4. Upper Mississippi River District

Massachusetts Institute of Technology, Cambridge,
 Massachusetts
 Library of Congress, Washington, D. C.
 University of Illinois Library, Urbana, Illinois
 Chicago Public Library, Chicago, Illinois
 Indiana University Library, Bloomington, Indiana
 Indiana State Library, Indianapolis, Indiana
 University of Minnesota Library, Minneapolis, Minnesota
 Milwaukee Public Library, Milwaukee, Wisconsin

5. Missouri River District

Massachusetts Institute of Technology, Cambridge,
 Massachusetts
 Library of Congress, Washington, D. C.
 University of Illinois Library, Urbana, Illinois
 Chicago Public Library, Chicago, Illinois
 Indiana University Library, Bloomington, Indiana
 Indiana State Library, Indianapolis, Indiana
 University of Minnesota Library, Minneapolis, Minnesota
 Milwaukee Public Library, Milwaukee, Wisconsin

6. Lower Mississippi - West Gulf District

University of Utah, Salt Lake City, Utah

7. Southwestern District

University of Arizona Library, Tucson, Arizona
 University of California Library, Berkeley, California
 Library of Congress, Washington, D. C.
 University of New Mexico Library, Albuquerque, New Mexico
 University of Nevada Library, Reno, Nevada
 University of Chicago Library, Chicago, Illinois
 University of Utah, Salt Lake City, Utah

9. North Pacific District

Library of Congress, Washington, D. C.
 Library Association of Portland, Portland, Oregon
 Oregon State Library, Salem, Oregon
 University of Washington Library, Seattle, Washington
 Washington State Library, Olympia, Washington
 State College of Washington Library, Pullman, Washington

10. South Pacific District

Library of Congress, Washington, D. C.
 University of California Library, Berkeley, California
 Los Angeles Public Library, Los Angeles, California
 San Francisco Public Library, San Francisco, California
 Stanford University Library, Stanford University, California
 University of California at Los Angeles Library, Los Angeles, California

Following is a list of supplemental hydrologic bulletins which have been issued. Any omissions or errors noted in this list should be reported to us.

LIST OF HYDROLOGIC SUPPLEMENTS

<u>Storm</u>	<u>Area</u>
Storm of July 25 - 27, 1940	Northeastern Iowa and adjacent areas
Storm of August 6 - 10, 1940	Louisiana and adjacent areas
Storm of August 10 - 19 and August 28 - 31, 1940	Georgia, North Carolina, South Carolina, and Virginia
Storm of August 11 - 20, 1940	Ohio River Basin
Storm of August 25 -31, 1940	Kentucky and Tennessee
Storm of September 3 - 4, 1940	Oklahoma and Kansas
Storm of November 21 - 27, 1940	Louisiana and Texas

Storm of December 1 - 16, 1940	Texas and Louisiana
Storm of April 13 - 20, 1941	Arkansas, Kansas, Missouri, and Oklahoma
Storm of May 20 - 28, 1941	Southeastern New Mexico
Storm of June 5 - 16, 1941	Illinois, Iowa, Kansas, Missouri, and Nebraska
Storm of August 28 - September 1, 1941	Minnesota, Wisconsin, and Upper Michigan
Storm of September 1 - 3, 1941	Kansas
Storm of September 20 - 24, 1941	Pecos River Basin
Storm of October 17 - 22, 1941	Northern Florida
Storm of October 19 - 22, 1941	Kansas
Storm of November 11 - 17, 1941	Oregon
Storm of January 22 - February 8, 1942	Northern California
Storm of April 14 - 18, 1942	Southeastern Florida Coast
Storm of May 16 - 23, 1942	New Jersey, New York, and Pennsylvania
Storm of June 14 - 18, 1942	Maine, New Hampshire, New York, and Vermont
Storm of June 24 - 26, 1942	Parts of Illinois, Iowa, Kansas, Missouri, and Nebraska
Storm of July 6 - 11, 1942	Kentucky
Storm of July 17 - 18, 1942	New York and Pennsylvania
Storm of August 21 - 22, 1942	Michigan
Storm of September 15 - 19, 1942	Portions of Wisconsin, Minnesota, and Michigan
Storms of October 11 - 18, 1942	Potomac River Basin
Storm of December 26 - 29, 1942	Alabama, Georgia, and Mississippi
Storm of January 19 - 24, 1943	Sacramento Basin and Los Angeles
Storm of March 10 - 22, 1943	Ohio River Basin

Storm of May 5 - 21, 1943 (three sections)	Ohio & Lower Mississippi River Basin and adjacent areas
Storm of June 7 - 14, 1944	Iowa, Kansas, Minnesota, Missouri, Nebraska, and South Dakota
Storm of June 17 - 19, 1946	Printed at C. O. for Fort Worth Hydrologic Unit

A few offices still need some copies of various issues to complete their files. Any office with a surplus copy of any issue listed below should send it (or them) to the proper office.

<u>District</u>	<u>Issue</u>	<u>Desired By</u>
Southeastern	Feb. and March 1940	WBO, Raleigh, North Carolina
Southeastern	Feb., March, July 1940 September 1943 March 1946	WBAS, Nashville, Tenn.
Ohio River	Sept., Oct., Nov., Dec. 1940 October 1941 June, July, Aug., Oct., and Dec. 1943 January, Sept., Oct., Nov., and Dec. 1944 April through Aug. 1945 May 1946	WBAS, Nashville, Tenn.
Missouri River	February 1940	WBAS, Cheyenne, Wyoming
LM-WG	January 1940 Through December 1941 July 1948 Jan. 1946 December 1940 May, Sept., Oct. 1941 April, May, June 1942 August 1945 Jan., Feb., Apr., May July, Aug., and Sept. 1946 April 1947 May 1948	Hydrometeorological Section of Hydrologic Services Div. WBAS, Nashville, Tenn. Cooperative Studies Section of Hydrologic Services Div.
North Pacific	June and Aug. 1940 Jan. to June, inc. 1943	WBAS, Cheyenne, Wyoming
South Pacific	Jan. through Nov. 1940 May 1940 Jan. through June 1942	WBO, Denver, Colorado

Jan. through Nov. 1940

Jan. and Feb. 1943

May, June, July 1943

Feb. 1944

June and Oct. 1945

Dec. 1946

Jan. and Feb. 1948 WBAS, Cheyenne, Wyoming

Jan., July, Aug.,

Sept., and Nov. 1940

Jan., May, July 1941 WBAS, Albuquerque, N. M.

2. PRECIPITATION RECORDS - FORMS 1006 AND 1009: A serious source of errors in published precipitation data has recently come to our attention. These particular errors occurred several years ago but only recently came to light in the course of a study of past storms. Passages from a letter written by the Section Director, Oklahoma City, on this subject are quoted below for your information. They point up the need for care on the part, not only of River District Offices, but also of Section Centers to insure that important precipitation reported in connection with the river or crop weather service is contained in the Forms 1006 or 1009:

"All but one of the discrepancies including the major error of omission of a 5-inch rain at Calvin were due to failure of observers to enter telephoned amounts on record forms, and hence the omission in the published data by the Processing Center.

"It is believed that a number of discrepancies of this character may have occurred between 1947 and 1950, and until the present form of 1006 and instructions for entry of special reports were put into use. The discrepancies, as a rule, are not between the original record forms and the published data, and for that reason preference to the original records will not disclose the discrepancies.

"Forms 1006 now in use provide space for entry of "Special observations", and observers are carefully instructed to make such entries whenever a report is telephoned. Still observers fail on occasions or regularly to do so. Circular Letter 8-50 places the responsibility on the River District Center for checking the completeness of the data entered on the form against wired or mailed reports and such practice normally now should prevent discrepancies of the type common to your discovery. This form of checking has been conducted by the Oklahoma City River District Center since Circular Letter No. 8-50, and we hope has eliminated such errors."

3. USE OF W.B. FORM 4031, SPECIAL STORM AND FLOOD REPORT BY AMERICAN RED CROSS: REFERENCE C.S.M. NO. 25, ITEM 5.
Please advise us the extent that Form 4031 is being used by the Red Cross.
4. CIRCULAR B, INSTRUCTIONS FOR COOPERATIVE OBSERVERS: "Instructions for Cooperative Observers," Circulars B and C, combined, and "Instructions for Installation and Operation of Class "A" Evaporation Stations," Circular L, have been revised and combined for issue as "Instructions for Climatological Observers" Circular B, 10th edition. Instructions for operating the weighing type precipitation gage have been included. A copy of Circular B is now at GPO for printing. We expect to have the circular available for distribution in August.

Shipments of Circular B to accomplish the initial distribution of the manual will be made direct to the Section Centers. Subsequent stock requirements of Section Centers will be obtained through the Regional Office. To assist us with these shipments, each Section Director should report to the Central Office, Attention 0-4.2, by July 10, 1952: (1) the number of copies required to furnish one circular to each substation within his section; (2) an estimate of the number of copies required for new observers and other purposes through June 30, 1953; and, (3) an estimate of copies required July 1, 1953 through June 30, 1954. Each Regional Office should also forward an estimate of the number of copies needed to supply one to each first order station (other than Section Centers), and each field aide, and to fill other requests through June 30, 1953. Estimates submitted by Section Directors for item (3) above will be used in stocking regional supply depots to fill requests of Section Centers for fiscal year 1954.

Distribution of Circular B to substations under the direct supervision of River District Offices, or other offices, will be coordinated by the Section Center with the distributing office concerned.

GENERAL

5. LETTER TO A COOPERATIVE OBSERVER: The following letter was sent to a cooperative observer over fifty years ago, on April 5, 1902.

Dear Sir:

Your report of the weather for March shows that you have neglected to measure the rainfall during the month. An entry like that in the summary to the effect that the rainfall was less than one inch is entirely useless, indicating that you simply

guessed at it. We know from surrounding stations that the rainfall at _____ must have been between half an inch and an inch. Please inform me if there is anything the matter with your raingage or any other reason why you should not have reported the amount of rainfall in inches and tenths, in accordance with instructions. If your raingage or measuring stick is not in good condition, it should be reported immediately and never send in a report which shows on the face of it you have neglected the work.

Very respectfully.

Section Director

Is there anything wrong with this letter? (Improved versions will be welcome, especially if submitted with consent to circulate in future C.S.M.)

6. LOAN OF CARBON COPIES OF FORMS 1009: One Section Center reports that the carbon copy of Form 1009 (held at the Center during the period between forwarding the original to the WRPC and its return to the Section Center) is often loaned to inquirers desiring data prior to receipt of the printed Climatological Data. This use of the form is said to save labor and to make an excellent impression on the recipient. If this plan is adopted at other Centers, proper stress should be placed on the need for early return of the carbon copy to the station file. (This is not to be taken as relaxing the prohibition against loan of original copies of meteorological records.)
7. RETURN OF CARDBOARD PROTECTING SHEETS USED BY WRPCs IN SHIPPING CLIMATOLOGICAL DATA: All offices receiving Climatological Data from the WRPCs protected by cardboard sheets are asked to return the cardboard protectors at intervals to the WRPCs for further use. Return by mail in packages not exceeding four pounds in weight.
8. CHANGES IN FLOOD STAGES: The Hydrologic Services Division reports the following changes in flood stages, effective May 1, 1952:

<u>Station</u>	<u>River</u>	<u>Flood Stage Changed From</u>	<u>Flood Stage Changed to</u>
Pattonsburg, Mo.	Grand	20 feet	25 feet
Gallatin, Mo.	Grand	20 feet	24 feet
Chillicothe, Mo.	Grand	18 feet	24 feet
Sumner, Mo.	Grand	25 feet	26 feet
Nebraska City, Nebr.	Missouri	15 feet	18 feet
Lewistown, Pa.	Juniata	27 feet	23 feet

9. REQUESTS FOR WEEKLY PRECIPITATION REPORTS BY PRIVATE CONCERN: Many cooperative observers have received requests from rainmaking organizations for special mail reports of rainfall. The following letter, outlining Weather Bureau policy on this matter, is suggested for use where indicated.

Dear Cooperative Observer:

You may be asked to furnish special mail reports of rainfall measured at your station, for use in the study or control of rainmaking activities.

This is to advise you that the Weather Bureau favors all reasonable cooperation in rainmaking experiments. You may therefore feel free to render special reports that may be requested, provided such an undertaking appeals to you and its acceptance will not diminish your satisfaction with our work as presently agreed upon.

You should feel free to disregard the request if it adds significantly to your load of weather work, but equally free to accept the task if you so desire, under the condition that acceptance does not change your hour or method of observing for our records.

10. CONSOLIDATION OF CLIMATOLOGICAL SERVICE MEMORANDUM AND CLIMATOLOGICAL OPERATIONS MEMORANDUM: Since 1947 Climatological Operations Memorandums have been issued. first as Status Reports and later COMs, to keep WRPCs informed of the progress of the mechanization program and to carry instructions to the WRPCs regarding the processing and handling of weather records.

Since the program is now stabilized the need for the C.O.M. has diminished to the point where it could be discontinued. The final issue, C.O.M. No. 49, was dated April 21, 1952.

A section in C.S.M. headed "Items of interest to WRPCs" will carry the type of material formerly issued in C.O.M.s.

OF INTEREST TO WRPCs

11. AMENDMENT TO INSTRUCTIONS: Paragraph 1009.6419. Delete "Awy-airway" from the list of abbreviations given. Second-order stations on the Climatological Data maps should be designated in the same manner as cooperative substations.

Paragraph 1009.685 should be changed to:

Paragraph 1009.685 - Table 3 should be prepared in groups of five stations. A period (.) should be wired in on the 407 control panel for WB Form 5103R, printed

two type wheels to the right of the 31st day.
Grouping of stations on other tables is optional
with WRPCs.

12. FORWARDING CLIMATOLOGICAL DATA AND LOCAL CLIMATOLOGICAL DATA TO CENTRAL OFFICE AND TO NWRC (REFERENCES (1) COM No. 35, Item 3; (2) COM No. 38, Item 1; (3) COM No. 46, Item 1; (4) COM No. 48, Item 1: The reference instructions regarding forwarding of publications are superseded, and the following instructions will apply:

Monthly and Annual Climatological Data

(a) Five copies, stapled and trimmed, marked for Climatic Information Section of the Climatological Services Division, should be mailed as early as possible.

(b) Thirty copies of each monthly issue and 130 copies of each annual issue, stapled and trimmed, should be shipped to the National Weather Records Center, Arcade Building, Asheville, North Carolina, with the following exceptions:

- (1) 40 copies of the monthly issues and 140 copies of the annual issue should be sent to NWRC for:

Alabama	Louisiana
California	Ohio
Georgia	South Carolina
Illinois	Texas
Indiana	Virginia
Iowa	Washington

- (2) 50 copies monthly and 140 copies of the annual issue should be sent to NWRC for:

Florida
Maryland - Delaware
North Carolina

- (3) 60 copies monthly and 160 of the annual issue should be sent to NWRC for:

New England
New Jersey
New York
Pennsylvania

Sixty copies, trimmed but unstapled should go to National Weather Records Center, Asheville for each section except Alaska, Hawaii, and the West Indies.

Local Climatological Data, Monthly
and Supplements

- (c) Five copies of each monthly and each supplement, mailed to Climatic Information Section of Climatological Services Division.
- (d) Twenty copies of each monthly and each supplement sent to the National Weather Records Center at Asheville.

Local Climatological Data, Annual

- (a) Six copies to Climatic Information Section of Climatological Services Division, mailed as early as possible.
- (b) Forty copies sent to the National Weather Records Center at Asheville.



W. F. McDonald
Chief, Climatological
Services Division

GUIDE TO CLIMATOLOGICAL SERVICE MEMORANDUM NO. 28

ITEM NO.

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