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

August 3, 1953  
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. 37.

INSTRUCTIONS

1. **Clarification of Substation Responsibility in Connection with Handling of WB Forms 612-13 Submitted by Stations Recording Temperature and/or Precipitation Only** (CSM No. 36, Item 1 should be revised by substituting "River District Office" for "supervising station").

   **River District Office's Responsibility**

   A. Checking of data on forms:

      1. River District Office checks completeness of headings to the extent that the forms are properly identified - if the forms were not prenumbered then the state and station name must appear in the heading. (NOTE: In all future shipments, blank forms should be prenumbered by the Section Center.)

      2. River District Office is to make sure (as in the past) that all special and regular observations reported by card, telephone, or wire, are entered on the form, and that the regular and special observations are in agreement.

   B. River District Office will ascertain that all WB Forms 612-13 are received prior to the established deadline and whenever necessary mail a reminder (WB 5070) to the observer, sending a copy to the Section Center.

   C. River District Office will make certain that the Section Center is informed concerning any substation's need for supplies, when appropriate. This is frequently automatic because the observer usually writes his requirements on the copies of WB Form 612-13, however, if this information (for any reason) fails to show on the carbon going to the Section Center, that office must be informed directly of the station's needs.
Section Center's Responsibilities

Section Centers will be responsible for all administrative actions except for sending out the WB Forms 5070 and those administrative actions relating strictly to the river reporting services.

(NOTE: We are not certain whether it is necessary for the corrected original WB Form 612-13 to be routed through the River District Offices when WRPC sends them to the Section Centers for permanent file. We will therefore welcome comments on this point and instructions in H-06 will be written accordingly.)

2. FURNISHING DATA FROM WRPC: This is a matter on which a simple rule can be stated, this rule to be applied with minor exceptions governed by good common sense. The rule is: "The WRPC is not basically, nor must it be permitted to become, a recognized regular source of direct public service in climatological records." In serving this rule, decision should lean to shifting requests to the proper service source, - Section Center, NWRC, or Central Office, - even at risk of some delay to the applicant. Only by this method can applicants be prevented from forming the habit of relying on WRPC as a "service" center.

Correspondence on cases handled at WRPC should be filed with the appropriate regular source of information, and a simple reminder to the applicant should ride with any material furnished directly by WRPC, somewhat as follows: "In order not to inconvenience you by delay we are supplying information requested by you under date of _______. However, the proper regular source for the information is ____________________ ."

3. INTERPOLATED MONTHLY PRECIPITATION TOTALS FOR RECORDER STATIONS: The National Weather Records Center would like to receive from Section Centers, within 30 days after receipt of the December 1952 Hourly Precipitation Data bulletin for the section, interpolated values for the 1952 missing monthly precipitation amounts.

It appears that all December 1952 issues will be published by October 1, 1953.

The cooperation of all Section Centers is requested.

4. PREPARATION OF WB FORM 531-1: It is requested that in preparing Form WB 531-1 if a weighing-type rain gage is installed, enter the words "without shield" or "with shield" in the space for instrumental equipment.

It is suggested that Section Directors review the latest issues of the Hourly Precipitation Data bulletins for their state to verify the accuracy of the stations listed with wind shield
5. REQUESTS FOR PRINTING ADDITIONAL COPIES OF CLIMATOLOGICAL DATA: Section Directors are reminded to ask the WPC to print an increased number of copies of individual issues of Climatological Data whenever unusual weather conditions lead them to believe that the demand for that issue will be heavier than usual. Such requests need not be cleared through the Central Office.

6. SHIPPING BULLETIN W SEPARATES TO THE NWRC (REFERENCE: CSM NO. 35, ITEM 10): All Section Centers that have not already done so are asked to

   (a) send surplus Bulletin W Separates to the NWRC
       as outlined in the referenced CSM item, or

   (b) if there are no copies to send, so advise the NWRC.

GENERAL

7. PREPARATION OF WEATHER STORY IN WEEKLY WEATHER AND CROP BULLETIN: We should like to emphasize that whenever weather conditions such as severe drought, abnormally hot, wet, or cold periods have occurred and are continuing, the cumulative effect (as well as the effect of the past week's weather) should be stressed in the Crop Bulletin.

8. CLIMATOLOGICAL CONTINUITY OF SUBSTATIONS (REFERENCE: PAR. C-0415 OF VOLUME III OF THE WEATHER BUREAU MANUAL): The 5 mile distance or 100 ft. elevation criteria for critical limits in substation moves were never intended as hard and fast, inflexible limits, but were set up tentatively as approximate upper limits for determining significant breaks in record continuity when stations are moved; it was also intended that the Section Center apply discretion in the use of these criteria as lower limits for locating breaks in continuity. The Section Center should in every case consider local topographic effects, as for example, when a move from the windward to the leeward side of a hill may have a large effect on the record.

   It could be argued that every change in exposure or location results in record discontinuity; we could not afford, as a practical matter, to treat all substation moves as breaks in record for climatological purposes. We do attempt, however, to reflect as breaks in the record all moves which seriously affect the climatological statistics; it is better to have a few more breaks than necessary in the records of our substation networks, than run the risk of jumbling together fragments of incompatible record. For this reason, we are not in favor of any gross relaxation of the tentative criteria as upper limits.
In any case, the responsibility for determining whether or not a station relocation breaks the record continuity and requires a new number, rests with the Section Center. Form 531-1 should include a statement in each case as to whether the record of the new location is compatible with the former location.

9. **SUBSTATION REPORTS:** The following letter was received from the Kansas Section Center:

"When the April 1953 substation forms were received it was noted that a great number of the observers failed to indicate the amounts of snow that had fallen, although a good many of them did mention snow. It was suspected that there may have been measurable amounts in some areas although it was recognized that it would have melted fast. In an attempt to obtain a complete snowfall record, cards such as the enclosed were mailed to 109 observers. Seventy-one replied with enough information so that the snow record for the month and, in a good many cases, for the season could be completed.

"Following receipt of the arrays from WRPC, letters were addressed to 36 observers requesting further information on certain items that appeared questionable or were omitted. Replies from which the facts could be ascertained were received from 29.

"The postcard survey and the letters removed 100 possible sources of error or uncertainty from the published record and we hope furnished a certain amount of training and guidance to the observers."

We wish to encourage other Section Centers to take similar action when appropriate.

**TO WRPC'S**

10. **AMENDMENTS TO INSTRUCTIONS:** Add to Par. 1009.652 the following note:

"Water equivalent samples are necessarily taken from different points for successive observations; consequently occasional drifting and other causes of local variability in the snowpack result in apparent inconsistencies in the record."

Paragraph 1010.032 - A blank space should separate the first and second half years in each of these two tables.
11. **PREPARATION OF FORM 531-1:** Whenever Forms 1006 or 1009 are received at the WRPC for a station for which Form 531-1 is not at hand, the Section Center should be promptly notified.

[Signature]

W. F. McDonald,
Chief, Climatological Services Division
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