

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

January 6, 1955

0-2.13

MEMORANDUM

TO: Area and State Climatologists, Section Centers, Hydro-climatic 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. 46

GENERAL

1. NORMALS (REFERENCE: CSM No. 33, Item 7, and No. 34, Item No. 8): The referenced CSM items are hereby superseded. This item defines various terms to be used in connection with normals:

NORMAL: A Mean based on the 30-year period, 1921-1950, if necessary adjusted to the most recent location, and revised every decade by dropping the first 10 years of data, and using instead the 10 most recent years (according to WMO regulations).

TEMPORARY NORMAL: A Mean obtained from a period of record less than 30 years, but not less than 10 years, and adjusted to provide a statistically satisfactory estimate of the normal.

MEAN: Mean for any specified period of record, other than normal or record mean.

RECORD MEAN: Mean for the entire period of record without adjustments.

Where necessary, these definitions should be stated in summaries and publications. Instructions for the preparation of substation normals will be issued soon.

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2. MAINTENANCE OF QUALITY OF RECORDS AND EARLY AVAILABILITY OF DATA: We consider the above two items to be of paramount importance in our reorganized climatological program, and we wish to emphasize their significance to all concerned. We need to improve the quality of substation records by improved instrumentation and exposures, but we do not want to lose ground in the over all checking of these records nor in the speed in making the data available for publication and distribution.

In either case it is important to all concerned to have the benefit of the judgment and experience of the State Climatologist. It will be proper for the State Climatologist to ask the assistance of the MICs of other first-order stations in the state in filling out Form 614-4 for storms which occur close to those cities. Even in those cases we are interested in the State Climatologist's evaluation of the information submitted. It was never intended that Form 614-4 be sent to persons outside the Weather Bureau except in rare instances where the person concerned was a meteorologist.

In view of the experience gained with this form the past year Form 614-4 is being revised with the above objectives. Detailed instructions for use of the revised form will be given as soon as the form is ready for issue.

9. IDENTIFICATION OF ROOF EXPOSURES IN CLIMATOLOGICAL DATA INDEX: Effective with Climatological Data for April 1955 we would like to have an indication carried in the Station Index (monthly and annual) showing which stations have a roof exposure of thermometer shelters. State Climatologists are asked to advise the WRPCs of all substations in the state with roof exposures of the thermometers. Where the WRPC is not sure about first-order or other stations the information regarding roof or ground should be obtained by the WRPC from any existing source including request to the station. Existing procedures should be amended as follows:
 - Pars. 1009.638 and 1009.826: Carry the reference symbol # just before the name of all stations where the thermometers are exposed on the roof of a building.
 - Par. 1009.652 and Par. 1009.83 add the following: #Thermometers are exposed on the roof.
10. EARLIER CLOSE-OUT DATE FOR SUBSTATION REPORTING FORMS: We note, from a recent report from one WRPC, that the close-out date was moved up from as late as the 21st to the 15th of the month. This was possible because of direct mailing of forms from the observer to the WRPC and because late forms from distant states were requested by air mail.
11. RETENTION OF ORIGINAL CLIMATOLOGICAL RECORD: The continued increase in cost of government space for files has resulted in directive to all agencies to review their requirements and eliminate all unnecessary files (Federal Records Act of 1950). Also the critical space problems at many of our field stations have made it necessary to remove many of the records previously stored at our climatological centers and make use of the consolidated storage facilities at NWRC Asheville, N. C. instead. It was for this reason that instructions were issued to forward all substation records for the period prior to 1951 to the NWRC upon reorganization of the field climatological services.

In those localities where there are special requirements, for substation records for the earlier years, e.g. special investigations, cooperative climatological punch card programs or other pressing demands for field files and where storage space is available at no additional cost, the Central Office will authorize retention of the field files.

2. (Table 5108A). Revise the 407 wiring diagram for par.1130.632 group wind speed (knots) for the equivalent MPH groupings, as follows:

- (a) 0-5 knots = 0-4 MPH
- (b) 5-12 knots = 5-14 MPH
- (c) 13-21 knots = 15-24 MPH
- (d) 22 knots and over = 25 MPH and over

3. (Table 5108B). Revise the 407 (or 416) wiring diagram to group wind speed (knots) for the equivalent MPH grouping, as follows:

0-3	knots	=	0-3 MPH
4-6	"	=	4-7 MPH
7-10	"	=	8-12 MPH
11-16	"	=	13-18 MPH
17-21	"	=	19-24 MPH
22-27	"	=	25-31 MPH
28-33	"	=	32-38 MPH
34-40	"	=	39-46 MPH
41 knots and over = 47 MPH and over.			

Cut Total Speed in knots into cols. 62-66 of summary card IBM772504.

Par. 1130.643 should be revised to read as follows: "Calculate Total MPH and Average Speed in MPH on the summary cards: Col. 62-66 x 1.15 = Total MPH. Total MPH + Col. 49-51 = Average Speed.

Punch Total MPH in Cols. 53-57; Average Speed in Cols. 58-60. Recalculate for check."

4. (Table 5108E). Revise the 407 (or 416) wiring diagram for par. 1130.662 to group wind speed (knots) for the equivalent MPH groupings, as follows:

0 knots	=	0 MPH
1-3 knots	=	1-3 MPH
4-6 knots	=	4-7 MPH
7-10 knots	=	8-12 MPH
11-16 knots	=	13-18 MPH
17-21 knots	=	19-24 MPH
22-33 knots	=	25-38 MPH
34 knots and over	=	Over 38 MPH

15. TIME HEADING ON LCD-SUPPLEMENT: The time notation, such as "Eastern Standard Time" should be carried in the heading of the LCD-Supplement just below the title.

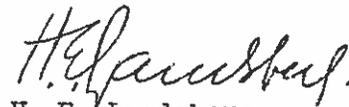
AMENDMENT TO PROCEDURES (Continued)

Paragraph 1010.038 - The note about mean values at the end of the Average Temperature and Total Precipitation tables should be changed to:

Record mean values at the end of the Average Temperature and Total Precipitation tables are long-term means based on the period of record beginning in _____. Values have not been corrected for changes in instrument location listed in the Station Location Table.

Change the reference note about sky cover etc. to the following:

Sky cover is expressed in a range of 0 for no clouds or obstructions to 10 for complete sky cover. The number of clear days is based on average cloudiness 0-3 tenths; partly cloudy days on 4-7 tenths and cloudy days on 8-10 tenths. Degree days are based on a daily average of 65°F. Sleet and hail were included in snowfall totals, beginning with July 1948.



H. E. Landsberg
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Services Division