

U.S. Weather Bureau

Circular letters. 1951.

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

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National Oceanic and Atmospheric Administration Weather Bureau Circular Letters

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WEATHER BUREAU

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36-51	10/3/51	A-4	Types of Actions for Which Fan-fold SF-50 will be Discontinued	780 100
37-51	10/3/51	A-4.5	Inauguration of Training Course for Weather Briefers	131
38-51	10/30/51	AO-1	Joint Civil-Military Use of Airfields	041
39-51	11/19/51	A-3	Security Regulations	055
40-51	11/19/51	O-5.31	Use of Radar Weather Reports in Flight Assistance Service	610.3 652.1
41-51	11/30/51	A-4.2	Annual and Sick Leave Regulations	121 122
42-51	12/6/51	A-4	Effect of Section 1310 of the Supplemental Appropriation Act, 1952 (Whitten Amendment) on Promotion, Reduction in Force and Transfer Actions	113 115.1 115.4

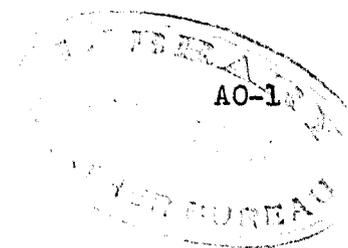


UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25

File: 053.2
054.2

January 2, 1951

CIRCULAR LETTER NO. 1-51 *cit*
(To All First-Order Stations)



Subject: Retention of Circular Letters

Since Circular Letter 26-50 was issued, a continuous review has been carried on to keep up-to-date a list of currently valid Circular Letters. Attached to this letter is the list of Circular Letters in effect on January 1, 1951. All Circular Letters not listed in the attachment to this letter have been superseded and are to be removed from files and destroyed. Unnumbered Circular Letters issued before 1940 no longer contain current instructions and may also be destroyed.

After screening Circular Letters and discarding obsolete ones, there remain slightly over 300 valid letters. Each of these contains some instruction or regulation which is important to station operation and should be understood by all personnel concerned. We suggest that insofar as time is available and where otherwise feasible, that employees be encouraged to acquaint themselves with the contents of valid Circular Letters. This is particularly true with respect to new employees in the Bureau.

The attached list is furnished in the same form as the numbered list of contents of Circular Letters now being furnished stations. It is designed so the list and all valid letters for the years 1940-44 inclusive may be bound in one volume; the list and valid letters for the years 1945-49 in a separate binding, and the same for 1950. All current letters can in this way be maintained in 3 volumes.

A new procedure is being used in an effort to make binding of mimeographed material easier. All Circular Letters, Multiple Address Letters and Memoranda are being punched at the Central Office before mailing using a standard punch to fit any regular 3-ring notebook binder. The outside two holes are spaced so that the material can be placed in an Accopress or similar binder at the end of each year. Stations are not required to place current letters in a 3-ring binder; any system which meets local needs is acceptable.

The alphabetical index to existing Circular Letters, issued in July 1950, is being revised to include all letters for the period 1940-50. Two copies will be mailed shortly to each first-order station.

F. W. Reichelderfer
Chief of Bureau

Attachment

Attachment to Circular Letter 1-51

UNITED STATES DEPARTMENT OF COMMERCE
 WEATHER BUREAU
 Washington 25, D. C.
 January 2, 1951

AO-1

Circular Letters for the years 1940-44
 in effect on January 1, 1951

Serial No.	Date of Issue	Issued by	Subject	File No.
11-40	7/17/40	SR&F-wi	Credit for Weather Forecasts & Data Published in Newspapers	
22-40	7/24/40	Opr.	Display of Weather Bureau Signs to Indicate Location of Offices	
68-40	11/22/40	C&OT-Sc	Adjustment of Station Pressure Data	
91-40	12/31/40	Opr.-McI	Card for Use in Advising Interested Parties of Pilot Balloon Observer's Whereabouts	
57-41	5/8/41	Opr-Wa	Employment of Day Labor	213
67-41	6/9/41	Opr-Ku	Certificates of Authority for Cooperative Observers	531.2
71-41	6/17/41	Chief-ms	Official Visits by Representatives of Government Departments & Bureaus	070.1 (030.6)
96-41	8/6/41	Adm-Er	Tentative Instructions for the Operation, Identification, etc., of Government Motor Vehicles	490
100-41	8/15/41	SR&F-Hew	Forecast Terminology	620.1
143-41	11/1/41	SpAsst-Ma	Plan of Regionalization for Weather Bureau Field Service	090
154-41	11/17/41	Accts-lmh	Remittances for Subscriptions to Weather Bureau Publications	700.07
9-42	1/20/42	Chief-Ka	Handling of Secret & Confidential Information	000 (080)
22-42	2/9/42	SR&F-Hew	Transmission of River Stages on Schedule "C" under the Heading of "CR" Reports	603.2

Serial No.	Date of Issue	Issued by	Subject	File No.
24-42	2/13/42	Accts-Ha	Preparation of Payrolls for Emergency Assistants & Substation Observers	202
24-43	3/3/43	SR&F-Ev	Preparation and Use of Washington Map Analysis and Supplementary Transmissions	600.00
25-43	3/18/43	Instr-WPL-Ma	Revised WB Forms 1144, 4065, 4065A, & 4065B	750
35-43	4/22/43	Adm-La	Use of Bulletin Boards by Employee Organizations	080
48-43	5/18/43	Pers-Gr	Effective Dates of Personnel Actions	100
83-43	8/25/43	SR&F-Ke	Approval Required for New Codes	610.3
107-43	11/16/43	SR&F-Ke	Forecast Terminology	620.1
113-43	11/26/43	Fisc-Lmd	Bills of the Western Union Telegraph Company	610 (200)
4-44	1/7/44	Adm-As	Conservation of Supplies & Equipment	400
39-44	5/8/44	SR&F-Wi	Description of cTK Air Mass Designator as Used by the Analysis Center	600.00
47-44	6/14/44	SR&F-Ev	Changes in Forecasts on Automatic Telephone	622.11
49-44	6/19/44	SR&F-Ke	County Responsibility for Distribution of Hurricane Advisories & Warnings	621.6
54-44	6/27/44	SR&F-Gr	Special Advices & Forecasts for Agriculture	622.1 (622.5)
55-44	6/29/44	SR&F-Gr	Mobile Emergency Unit (MOBEU)	090 (080) (140.2) (621) (621.5) (621.6)

Serial No.	Date of Issue	Issued by	Subject	File No.
60-44	7/28/44	SR&F-Gr	Weather Summaries on Schedule "C"	610
69-44	9/16/44	Adm-La	Return of Identification Badges, Credential Cards, etc. by Employees Separated from the Service	113 (160)
77-44	10/28/44	SR&F-Ke	Extra Telephone Facilities for Weather Emergencies	340.3
85-44	11/20/44	SR&F-Ke	Continuity in Weather Information Released to Press & Radio	621.5 (620.1)

Attachment to Circular Letter 1-51

UNITED STATES DEPARTMENT OF COMMERCE

WEATHER BUREAU

Washington 25, D. C.

January 2, 1951

AO-1

Circular Letters for the years 1945-49
in effect on January 1, 1951

Serial No.	Date of Issue	Issued by	Subject	File No.
26-45	3/26/45	SR&F-Jm	Amendments to "Preparation of Weather Maps"	730.4
36-45	4/24/45	Pers-fo	Salaries and Leave for Employees on Extended Detail	202 (130)
45-45	5/10/45	AsstCh Adm-Hi	Regional Authority to issue Letters of Authority for employment of emergency assistance	103
66-45	8/13/45	AdmM&A. Wa	Quarters Information Regarding Expenditures for Janitor Service, Utility Services, Care of Grounds, Alterations, etc.	350.1 (360)
81-45	10/22/45	A-Ch.Adm.	Station Records	080
90-45	12/4/45	Pers-Ma	Administrative work week for official hours of duty	102.4
21-46	3/27/46	AsstChf Adm-McC	Discontinuance of WB Forms. 2022 & 2023, Reports on Employment of Emergency Assistance	103. (750)
31-46	4/25/46	AsstChf AdmMcC	Salary Increases for Superior Accomplishments	120.1 (202)
33-46	5/3/46	Accts-lms	Federal Employees Pay Act of 1945	202 (102.4) (080.04)
36-46	5/13/46	Pers-Ma	Citizenship	100
38-46	5/14/46	SR&F-Ko	Forwarding Copies of Daily Weather Bulletins to Central Office	730.5
39-46	5/14/46	Pers-CO	Duty Status - New Employees	102.4 (202)

Serial No.	Date of Issue	Issued by	Subject	File No.
45-46	5/23/46	Instr-E1	Entry of Ceilometer Data on Weather Bureau Forms 1144 & 4065	750 (451.2)
70-46	8/21/46	Chf-Wd	Interdepartmental Policy on Publication of Weather Forecasts	620.1 (622.1) (622.2) (621.5)
73-46	9/18/46	SR&F-Ev	Broadcast of Local Terminal Forecasts over CAA Range Stations	622.5 (620.11)
79-46	10/14/46	WFO-McC	Forms & Publications Requisition	750 (400.2)
80-46	10/14/46	Adm-We	Regulations governing Weather Bureau employees appearing as witnesses in court	803.3
95-46	11/22/46	Asst Chf Adm-He	Use of Automotive Equipment	080.1 (480)
100-46	12/9/46	SR&F-Hew	Furnishing Copies of Manuscript Maps to Other Agencies	730.4
102-46	12/16/46	SR&F-Hew	Coding and Transmission of Delayed Data Obtained During Radiosonde Ascents	610 (601.4) (610.3)
5-47	1/22/47	Chf-Ta	Alleged Interference in the Reporting of Weather for Aircraft Clearances	603.51
15-47	3/11/47-	SR&F-Fe	Specialized Forecasts and Advices for Agriculture	620.43
18-47	3/18/47	Pers-Fo	Interview of Applicants for Appointment	110
19-47	3/19/47	SR&F-Be	Reply to Inquiries Regarding Air Carrier Operations	620.11 603.51 070.2
23-47	3/24/47	Pers-Fo	Reduction-in-Force Procedures	100
24-47	3/28/47	SR&F-Be	Release to Press or Radio of Forecast Information Extending beyond the Official Forecast Period	620.1 620.7 622.5

Serial No.	Date of Issue	Issued by	Subject	File No.
25-47	4/8/47	MPO-lmb	Regulations governing Weather Bureau employees appearing as witnesses in court	903.3
28-47	4/24/47	Pers-Fo	Personnel History Change and Annual Personnel Experience Record Sheets	150 750
35-47	5/12/47	MPO-lmb	Registration of Field Personnel Visiting the Central Office	030.6
37-47	5/15/47	Pers-Fo	Legislation	060
40-47	5/23/47	Syn-HI	Use of Abbreviation "DLAD" for filing delayed weather reports	610.1
46-47	6/9/47	Instr-Br	Raob, Rason and Ceilometer Programs	080 451.1 451.2 031.1 601.4
48-47	6/12/47	SR&F-Hew	County Responsibility for Distribution of Hurricane Advisories and Warnings	621.6
50-47	6/18/47	SR&F-Be	Singing Weatherman Radio Commercials	622.5
51-47	6/23/47	Pers-H:zft	Job Assignments for P-1 Employees	080 140
53-47	6/25/47	SR&F-Be	Trip Forecasts	620.11
55-47	7/7/47	SSS-in	Artificial Inducement of Precipitation	045
65-47	8/4/47	SR&F-cjc	Code for Transmission of Microseismic Data	040 610.3 621.6
70-47	8/18/47	Pers-Fo	Appointment of sub-professionals directly to stations in Alaska	110 080.1
75-47	8/26/47	Chf'sOff	Artificial Inducement of Precipitation	045
81-47	9/11/47	SR&F-Hu	Refile of PBA Messages Via Western Union	610

Serial No.	Date of Issue	Issued by	Subject	File No.
85-47	9/23/47	SR&F-cjc	Transmission of "Downtown Data" by Portland, Maine	601 610 730.5
86-47	9/29/47	Pers-co	Employee Suggestion Program	100 030.7
87-47	10/1/47	Pers-Fo	Civil Service Regulations Effective August 30, 1947 in connection with Promotion and Reassignment Requirements	120.1 102.2
90-47	10/16/47	Pers-Fo	Completion of Civil Service Commission's Standard Form 57, Application for Federal Employment, for Examination for Probational Appointment	101 110
91-47	10/16/47	Pers-Fo	Restoration or Reemployment after Military Service	130.4 110.3
101-47	11/13/47	Pers:Tr-Lo	An opportunity to Receive Credit for the Equivalence of College Education	031.2 151
107-47	11/28/47	Pers-fo	Leave Without Pay to Attend School	130.3
109-47	12/4/47	SR&F-Ko	Priorities Accorded Government Telegraph Communications	610
113-47	12/9/47	SR&F-Ch	Singing Weather Forecast Radio Commercials	622.5
114-47	12/15/47	Pers-ng	Loyalty Investigation Forms for New Appointees after September 30, 1947	100
120-47	12/17/47	Pers:Tr-Lo	Broadcast Training	622.5 031.1
124-47	12/29/47	SR&F-Ch	Direct Radio Broadcasts	622.5
3-48	1/13/48	MPO/GDM	Fees for Services Furnished the Public	700.7 410.4 903.1
6-48	1/26/48	SR&F-Hew	Distribution of Weather Information by Radio	622.5

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8-48	2/10/48	SR&F-Hew	Specialized Forecasts for Agriculture	620.43
13-48	2/19/48	SR&F-Hew	Television	622.5
18-48	2/27/48	SR&F-Mu	Communications Expenditures Chargeable to Allotment 6182309	615 610 210.2
21-48	3/8/48	Mat-Re	Use of WB Form 1429 (Revised), Requisition for Telephone, TWX, and Private Line Service	750
22-48	3/9/48	Chf'sOff- Oo	Policy With Respect to Private Practice of Meteorology and instructions Regarding Cooperation with Private Meteorologists	070.2 in- 420.3 620.8 622.1
25-48	3/15/48	Mat-Dye	Federal Supply Schedule Index	400
28-48	3/19/48	SR&F-Al	2-Hour Terminal Forecast Program	620.11
30-48	3/30/48	Pers:Tr- Lo	Evaluation of Scores in Graduate Record Examination for Equivalence of College Education	031.2 151
32-48	4/8/48	Chf'sOff- Oo	Preparation of Weather Information for Radio Broadcast	622.5
34-48	4/9/48	SR&F/C&HS We	Special Warning Service to American Red Cross Area Headquarters Offices	621.1 621.5
36-48	4/30/48	Asst ChO: Ko	Telephone Facilities at Weather Bureau Stations	340.3 622.1 622.11
40-48	5/12/48	SR&F-Al	Responsibility for Trip Forecasts	620.11
41-48	5/18/48	Instr-R/S	Use of Neoprene Pilot Balloons	451.6

Serial No.	Date of Issue	Issued by	Subject	File No.
47-48	6/4/48	Libr/RCA	Foreign exchange of station Publications	700.6 070.2
48-48	6/4/48	MatDYE Fo.	Specifications on Continuing service (drayage)	260.2 240
50-48	6/9/48	AsstChO: Fl	Supervision of Supplementary Aeronautical Weather Reporting Stations (Cooperative)	535.1
51-48	6/11/48	Opr:We	Control Tower Visibility Program	601.2 603.51
54-48	6/22/48	Pers:Tr- Lo	Examinations Administered by Field Aides	151
56-48	6/28/48	Accts-Noh	Preparation & submission of vouchers covering communication services	200.4 615
58-48	6/30/48	Chf'sOf- Wd	Cooperation with Amateur Weathermen of America	070.2
59-48	6/30/48	Adm-Vo	Accident Reporting & the Processing of Claims under the Federal Tort Claims Act	480 155
65-48	8/3/48	Anl-mlh	Changes in analysis transmissions on Service C	610 600.00
66-48	8/4/48	SR&F-Hu	Emergency Responsibilities of Weather Bureau Offices	102.4 080
72-48	8/6/48	SR&F-Hew	Warning Service to American Red Cross	621.1 621.5
76-48	8/30/48	C&HS-Inf Wy	Releasing Weather Information Associated with Aircraft Accidents	600.23
77-48	8/31/48	P&PMO	Subscription Lists for Climatological Data.	700.7 723.3
78-48	9/10/48	C&HS-FS Mo	Earthquake Reports, WB Form 5000	047 750
83-48	9/27/48	SF&MO:A	Differing weather observations	601.2 600.22

Serial No.	Date of Issue	Issued by	Subject	File No.
85-48	10/1/48	O-5.21	Furnishing Copies of Manuscript Maps to Other Agencies	730.4 700.6
88-48	10/6/48	O-5.32	Local Public Service Weather Teletype Circuits	622.1 420.3
92-48	10/20/48	O-3.4	Use of Natural Latex Pilot Balloons	451.6
100-48	11/18/48	O-5.23	Teletype identifications for locations in Mexico	610.4
101-48	11/30/48	O-4.3	Dew point conversion scales, WB Forms 1187A and 1187B	750 601
102-48	11/30/48	R-3	Clearance of text for publication, talks or for local radio broadcasts	030.6 700.1
104-48	12/6/48	A-4	Reemployment Rights of Employees Following Military Service Under the Selective Service Act of 1948	130.4 153.2 160
106-48	12/6/48	O-5.31	Changes in Codes and Procedures, January 1, 1949	740.1 610.3 601
112-48	12/21/48	O-4.2	Transmission of Code Group $8N_s CH_s h_s$ from designated stations	610 610.3 740.1
114-48	12/23/48	O-2.24	Amendments to River Data Code 1944	603.21 610.3
115-48	12/27/48	O-2.13	Conversion of Dewpoint and Relative Humidity Records to an "Over Water" Basis for Comparative Data	601 903
117-48	12/29/48	O-5.21	Mexican Synoptic Code; 1949 Edition	740.1 610.3 601
118-48	12/31/48	A-4.31	Leave Without Pay	130.5
1-49	1/5/49	O-5.21	Digest of Pan American Airways Synoptic & Aero Code Forms, 1949 Edition	610.3
3-49	1/10/49	O-5.31	Map Improvement Program	730.4

Serial No.	Date of Issue	Issued by	Subject	File No.
4/49	1/11/49	A-3.5	Greater Utilization of Bureau of Federal Supply Stores Facilities & Stabilization of Stores Prices	400
6-49	1/12/49	R-3	Preparation of Form for Individual Listing of Scientific Papers	750 700.1 150.9
7-49	1/17/49	O-2.13	On-Station Card Punching for Northern Hemisphere Historical Map Project	903.41 730.4
8-49	1/17/49	O-5.32	Identification of Local Forecasts	620.2
9-49	1/17/49	O-4.2	Transmission of Code Group 8N Ch h by additional stations s s s	610 610.3 740.1
10-49	1/25/49	O-5.32	Television	622.5
11-49	1/25/49	O-2.13	Changes in Climatological Summaries resulting from Use of WB Forms 1001B & 1001C, and WB Forms 1130A and B for Permanent Local Record	903.1 750 723.3
12-49	1/25/49	O-5.21	Instructions for Coding Additive Data Groups to Hourly Observations on Service "A"	740.1 601 610.3
14-49	2/7/49	O-4.2	Certification of Observers	152 601 601.2 603.51
16-49	2/8/49	A-4.3	Revision of Multiple Address Letter dated 1/5/48, & Amendment dated 4/20/48 Delegation of Authority to approve Personnel Actions involving Adjustments for Differentials, Deductions for Quarters, Fuel and Light & Deductions for Quarters & Subsistence	202.11 202.12
17-49	2/9/49	O-5.1	Three-Hourly Analyses	600.00

Serial No.	Date of Issue	Issued by	Subject	File No.
18-49	2/14/49	O-3	Quarterly Comparative Barometer Readings	450.7 750
20-49	2/21/49	O-5.32	Radiosonde Code - 1949 Edition Amendments	601.4
23-49	3/4/49	O-5.32	Agricultural Forecast Services	620.43
24-49	3/7/49	O-5.32	Broadcast of Weather Information Transcribed by Telephone	622.5 622.1
27-49	3/11/49	O-5.21	Coding Present Weather (W)	610.3
30-49	3/22/49	O-5.21	Conversion of 3 & 6 hourly Synoptic Reports to the Airway Hourly Report Form for Transmission on Service "A"	610
31-49	3/24/49	A-4.3	Amendment to Circular Letter No. 16-49 dated 2/8/49, File A-4.3, to complete instructions regarding inclusion of Territorial Cost of Living Allowance, Territorial Post Differential & Foreign Post Differential in lump sum payments for annual leave upon separation	202.11 x202.12
32-49	3/29/49	O-5.22	Reporting Wind & Weather Data from Substations on the Great Lakes	610.3 x610
34-49	3/30/49	O-4.2	Visibility Observations	601.2
37-49	4/11/49	O-4.2	Policy-Development of General Public Service wherever Practicable in Lieu of Replies to Individual Inquiries	622.1 620.8
38-49	4/13/49	O-5.23	Instructions for Using the PBA Return Refile Communications System	610
39-49	4/18/49	O-4.2	Wyesight Requirements	100 x601
41-49	4/18/49	O-2.13	Subscription Prices for Weather Bureau Publications	700.7
43-49	4/18/49	O-3.4	Recovered Radiosondes	451.1

Serial No.	Date of Issue	Issued By	Subject	File No.
45-49	4/27/49	A-1	Regional Reorganization	090
46-49	4/27/49	O-5.31	Minimum Ceiling & Visibility Requirements for VFR Flight & use of the Term VFR in Pilot Briefing	600.21 x601.2
47-49	4/28/49	O-4.1	Local distribution of airway weather information by weather Telautograph circuit	420.3
48-49	4/29/49	A-4.3	Differential & Allowance; Effective Date of Beginning & Ending	202.11 x202.12
54-49	5/25/49	O-5.31	Responsibility in Giving out Forecasts & in Pilot Briefing	600.21
55-49	5/26/49	O-2.13	Substitution of Printed Form 1001C for Form 1030	750
56-49	6/1/49	A-3.53	Property Regulations	401
57-49	6/13/49	A-3	Security protection for classified Information	000
59-49	6/14/49	O-5.21	Furnishing Copies of Manuscript Maps to Other Agencies	730.4 700.6
60-49	6/15/49 Revised 9/9/49	A-3	Dangers Attending Burned Out Fluorescent Tubes	410.1 x080 x155
61-49	6/17/49	O-5.32	Establishment of an Independent Forecast Office at New York City	620.03 620.1 620.2 622.1
63-49	6/20/49	O-5.2	Local Public Service Weather Teletype Circuits	420.3 622.1
65-49	6/20/49	O-5.32	County Responsibility for Distribution of Hurricane Advisories & Warnings	621.6
66-49	6/20/49	O-5.32	Local Severe Storm Warnings	621.5
67-49	6/20/49	O-5.21	Terminal Forecast Group being used by U.S.A.F., Air Weather Service Stations, Correction to	610 610.3 620.11

Serial No.	Date of Issue	Issued by	Subject	File No.
69-49	6/30/49	0-2.13	Custody of Weather Records & Rendition of Specialized Service	903.1 000
70-49	6/30/49	A-3	Accountability & Disposition of Government Property	401 400
71-49	6/30/49	O-5	Terminal Forecasting Reference Manual	620.11
72-49	7/1/49	A0-1	Measurement of Precipitation for Rain Insurance	153.1 130.1 603.22
73-49	7/7/49	O-5.4	Weather Reports from Foreign Countries	601.2 600.0 070.2
74-49	7/11/49	A-3.5	Purchase of Blind-made Products	400 400.2
78-49	7/27/49	A-3.53	Transfer of Property	750 400.3
80-49	8/1/49	CWB	Reports of Inadequacies in Airways Weather Service	600.21 070.2
81-49	8/2/49	O-5.21	Reports from U. S. Coast Guard Lightships; Coding & Transmission thereof	604 610
83-49	8/12/49	A0-1	Regional Reorganization	090
84-49	8/12/49	O-4.1	Policy concerning the establishment of cooperative climatological substations at Radio Stations Newspapers, & Public Agencies	531.2
86-49	8/12/49	O-2.13	Subscription Prices for Weather Bureau Publications	700.7
87-49	8/15/49	O-5.31	Weather Bureau Liaison with State Aviation Officials	070.2 080 600.21
88-49	8/15/49	O-5.21	Synoptic Code, 1949 Edition; Amendment No. 1 thereto	610.3
89-49	8/22/49	O-5.31	Collection & Utilization of Pilot Weather Reports	600.22

Serial No.	Date of Issue	Issued by	Subject	File No.
91-49	8/24/49	A-4.2	Honor Awards	030.7 150.3
92-49	8/24/49	A-3.32	Preparation of vouchers of the Western Union Telegraph Co.	200.4 750
93-49	9/2/49	OWB	Aviation Meteorological Services "XREP" Project (Experimental Auxiliary Aeronautical Weather Reporting Project)	535.1 600.21
99-49	9/9/49	O-5.31	Responsibility for Storm Warnings to Aviation Interests	621.5
100-49	9/9/49	O-2.13	Eligibility of Airlines to Receive Station Summaries Without Cost	700.7 700.6
102-49	9/13/49	O-4.2	Observational Program at City Offices Having Adjacent Airport Observing Stations	601 601.2
103-49	9/13/49	O-5.1	Transmission of Canadian Analysis on Service C	610 600.00
104-49	9/22/49	A-4.2	Reporting Injuries - Employees Compensation Act	154
106-49	9/27/49	A-3.5	Property Regulations	400 400.3 400.4
108-49	10/3/49	A-3	Fire Prevention	340.2
109-49	10-4-49	O-5.21	Synoptic Code, 1949 Edition; Amendment No. 2 thereto	610.3
110-49	10/5/49	A-3.3	Vouchers covering telephone, radio, and cable toll charges	200.4
112-49	10/7/49	A-3.5	Aerological supplies	451 400.2
113-49	10/7/49	O-2.13	Free Receipt of Weather Bureau Publications by Russell C. Jones	700.6
115-49	10/13/49	O-4.1	Local Distribution of Airway Weather Information by Weather TelAutograph Circuit	420.3
118-49	10/24/49	O-5	New boundaries of 5-day forecast districts	620.03 620.7

Serial No.	Date of Issue	Issued by	Subject	File No.
119-49	10/24/49	O-4.2	Wind directions in terms of the magnetic compass	601 610
122-49	10/25/49	O-2.13	Instructions for Computing, Coding, & Transmitting of Weekly & Monthly Means Data	602 610
125-49	11/7/49	O-2.13	Binders for Permanent File of Forms 1130A,B,D, & 1001 B & C	410.2
126-49	11/8/49	O-5.4	Responsibility for Trip Forecasts for Flights into Canada	620.11
128-49	11/14/49	O-5.1	Changes in W'BAN Analysis Center Transmissions	610 600.00
129-49	11/16/49	A0-1	Regional Reorganization	090
135-49	11/23/49	O-2.13	Preparation & Routing of WB Forms 4035 & WB Forms 4035A (Severe Storm Reports)	607 750
136-49	11/23/49	O-5.4	Weather Bureau Service for "Stunt" Flights	620.11 600.21
137-49	11/28/49	O-3	Instrumental Equipment	450 401.5
138-49	11/28/49	O-2.13	Eligibility of Various Organizations to Receive Weather Bureau Publications without Cost	700.7 700.6
142-49	12/7/49	O-5.31	Distribution of Pilot Weather Reports	600.22
143-49	12/8/49	O-5.21	Radiosonde & Rawinsonde Code, 1949 Edition; Amendment 2	610.3
144-49	12/13/49	O-5.21	Aircraft Weather Reporting Code (CAW-C)	610.3
145-49	12/16/49	O-5.31	Revised Pilot Weather Reporting Program	600.22
146-49	12/21-49	O-5.21	Reporting Height of 700mb Surface; Leadville, Colorado	610
148-49	12/22/49	O-4.2	On-Station Maintenance Program	450 350.1 750

Serial No.	Date of Issue	Issued by	Subject	File No.
151-49	12/23/49	A-3.5	Loan or Exchange of Helium Cylinders	451.7
153-49	12/30/49	AO-1	Regional Consolidation	090

Attachment to Circular Letter 1-51

UNITED STATES DEPARTMENT OF COMMERCE
 WEATHER BUREAU
 Washington 25, D. C.
 January 2, 1951

AO-1

Circular Letters for the year 1950
 in effect on January 1, 1951

Serial No.	Date of Issue	Issued by	Subject	File No.
1-50	1/3/50	O-2.13	Bulk Printing of Climatological Summaries	700.4 723.3
3-50	1/4/50	O-4.2	Revised "Tables of Proportional Parts for Reduction of Pressure to Sea Level	740 450.7
4-50	1/10/50	O-5.21	Weather Analysis Symbols	730.4
5-50	1/13/50	A-3.5	Excess Property	401.4 750
6-50	1/16/50	A-3.3	Vouchers covering toll charges for communication services	200.4
7-50	1/18/50	O-5.32	Weather Forecasts in Newspaper Adds.	622.2
8-50	1/18/50	O-4.1	Administration of the Hydroclimatic Network	532.21 080
9-50	1/20/50	O-2.13	Discontinuance of Use of Dividing Tables (W.B.No. 655)	750 740
10-50	1/25/50	O-4.3	Geostrophic Wind Scales Designed to Give Wind Velocities in Knots	410.2
11-50	2/1/50	O-3.4	Pilot and Ceiling Balloons for the 1950 Fiscal Year	451.6
12-50	2/2/50	A-4	Efficiency Ratings for the Rating Period Ending March 31, 1950	150.5
13-50	2/2/50	O-2.2	Adjustment of Field Program for Hydrologic Services	080 090
14-50	2/2/50	O-5.31	Aviation Weather Services, Lapse Rate Briefing	600.21

Serial No.	Date of Issue	Issued by	Subject	File No.
15-50	2/8/50	O-5.21	Forms of Synoptic Messages; Pacific Ocean Area	610.3 604
17-50	2/17/50	A-3.5	Sale of Surplus Property	401.5
18-50	2/17/50	O-5.32	Radio Broadcast Preparation Check List	622.5
20-50	2/24/50	A-3.5	Open Market Purchases not exceeding \$500.	400
21-50	2/27/50	O-2.13	Subscription Notice on Weather Bureau Publications	700.7
22-50	3/3/50	O-5.31	Posting of NOTAM Code	600.21
23-50	3/6/50	A-4	Completion of Personnel History Sheet Form 6005 (Supersedes Circular Letter No. 47-46)	100 750
24-50	3/17/50	O-5.22	Reporting of ICE Information by First Order and Substations along the Great Lakes	610.3 603.24 610
27-50	3/22/50	A-3.5	Reports on Procurement	400
28-50	3/28/50	O-5.21	Radiosonde and Rawinsonde Code, 1949 Edition; Amendment No. 3, thereto	610.3
29-50	3/29/50	O-5.32	Teletype Distribution of Experimental Thirty-Day Outlook	622.1 723.6 620.7
32-50	4/3/50	O-2.13	Conversion of Relative Humidity Data in Station Climatological Record and for Publication in Local Climatological Summaries	601 903 723.2
33-50	4/6/50	A-3.5	Unserviceable and Obsolete Instrumental Equipment	401
34-50	4/6/50	O-2.13	Disposition of Supplementary Forms WBAN 10A containing PIREPS	903.4

Serial No.	Date of Issue	Issued by	Subject	File No.
35-50	4/12/50	A-3.33	Preparation of Time and Attendance Reports (Standard Forms 1130) during periods of "Daylight Saving Time"	102.4 750
38-50	4/18/50	O-3	Instrument Clocks and Gears	410.1
40-50	5/11/50	O-4.1	First Amendment to Circular Letter No. 8-50	532.21 080
41-50	5/23/50	O-2.13	Formats for Preparation of Type-written Form 100 C for Photo-Offset Printing	723.2 750
43-50	6/16/50	A-3	Reporting Occurrence of Fires	340.2
45-50	6/16/50	O-5.31	Forecast Service for Private Pilots' "Mass Flights"	600.21 620.11
46-50	6/16/50	O-5.31	Improvement of Pilot Briefing Services	600.21
48-50	6/21/50	A-3.34	Identification of Travelers	080.1 750 260.5
49-50	6/21/50	O-2.13	Climatological Record, Period 1951-1970	740 903.1
50-50	7/3/50	O-5.21	Synoptic Code, 1949 Edition; Amendment No. 3, thereto	610.3
52-50	7/12/50	O-5.33	Statements Concerning Tornado Forecasting	621.5
53-50	7/12/50	A-4.4	Completion of Personnel History Sheet - Form 6005	100 750
54-50	7/27/50	O-2.13	Furnishing of Weather Data Obtained from Official Thermometers and Rain Gages to Private Individuals or Agencies	531.2 603.12 903.1 070.2
55-50	8/11/50	CWB	Release of Weather Bureau Reserve Personnel to the Military Service	153.2

Serial No.	Date of Issue	Issued by	Subject	File No.
56-50	8/21/50	0-2.13	Local Climatological Summaries	721 723.2
57-50	8/21/50	0-5.31	Test Program of Terminal Forecast Groups	620.11
58-50	8/22/50	0-4.1	Secretarial Appointments of Part-time Employees	110 530
61-50	8/29/50	A-3	New Weather Bureau Form - Receipts for Cash Received	750
63-50	9/7/50	0-2.13	Mailing Form 1001C Forms to the Weather Records Processing Centers	723.2 901
64-50	9/7/50	0-2.13	Publication of Excessive Precipitation	721.1 603.21
65-50	9/8/50	AO-1	Material contained in Circular Letters, Multiple Address Letters and Memoranda	010.3 080
66-50	9/8/50	0-2.13	On-Station Card Punching for Northern Hemisphere Historical Map Project	903.41 730.4
67-50	9/20/50	AO-1	Rendition of WB Form 4008, Station Service Sample	750
68-50	9/22/50	0-5.33	Alert for Winter Weather Service	621.3 622.1
69-50	9/28/50	0-2.13	Metal-hinged Endlock Binders for Binding Forms 1130A, B, D, and 1001B, C, at Field Stations	410.2
70-50	10/5/50	A-4	Annual Leave	130.1
71-50	10/5/50	0-5.32	Revised Service "C" Distribution Patterns	610
72-50	10/9/50	0-5.31	Notation of Aircraft Type on AIREPS of Turbulence and Icing	600.22

Serial No.	Date of Issue	Issued by	Subject	File No.
73-50	10/11/50	A-4	Policy and Procedures in Requesting Delay in Call to Active Duty of Members of Reserve Components of the Armed Forces and Interim Policy Governing Requests for Deferment Under the Selective Service Act of 1948	130.4
74-50	10/12/50	A-4	Annual Leave	130.1
75-50	10/16/50	A-4.4	Administering Oaths in Connection with Federal Employment	111
76-50	10/26/50	A-4	Designation of Beneficiary - Civil Service Retirement Act	102.3 160.5
77-50	10/26/50	O-5.23	Supplementary Weather Reports	610
78-50	11/2/50	O-2.13	Adjustment of Monthly Average Station Pressure Data	601 903
79-50	11/2/50	A-3.34	Revision of Standardized Government Travel Regulations	080.1
80-50	11/6/50	A-4	Effect of Section 1302 of the Supplemental Appropriation Act of 1951 on Personnel Actions	110 120.1
81-50	11/6/50	O-5.2	Economy in Use of Toll Communications	615
82-50	11/8/50	CWB	Radio Weather Broadcasts	622.5
83-50	11/14/50	A-4.3	Acquisition of Competitive Status under Executive Order 10157, dated August 28, 1950	110.3 010.8
84-50	11/17/50	O-5.32	Newspaper Clippings and Data in Local Press	030
85-50	11/20/50	AO-1	Scheduling	080 102.4
86-50	11/20/50	A-3.33	Designation of Beneficiary for the Unpaid Compensation of Deceased Civilian Employees	202 160.5
87-50	11/22/50	O-2.13	Revision of Normals of Precipitation, Temperature, and Degree Days	903
88-50	11/28/50	O-2.13	Local Climatological Summaries	721 723.2

Serial No.	Date of Issue	Issued by	Subject	File No.
89-50	12-6-50	O-2.13	Disposition of Met. Records from SAWRS	903.4 535.1
90-50	12-6-50	O-5.31	Familiarization Flights for WB Pers. Engaged in Flight Briefing Duties	080.1
91-50	12-11-50	O-5.1	Changes in WBAN Analysis Center Transmission	600.00
92-50	12-12-50	O-5.31	Display of Manus. Surface Weather Maps	730;4
93-50	12-15-50	O-5.21	Manuscript Map Supply	730.4 610.4
94-50	12-15-50	A-3.5	Mandatory Use of Supply Contract Standard Forms	250 750
95-50	12-22-50	O-4.2	Artificial Rain Making	045
96-50	12-26-50	O-5.32	Service A Transmission of Aviation Weather Reports	610
97-50	12-26-50	A-4.3	Acquisition of Competitive Status Under Executive Order 10157, dated 8/28/50	110.3 010.8
98-50	12-26-50	O-5.21	Reporting of 700 mb and Freezing Level Data	610.3 601.2

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
January 5, 1951

File: 630

O-5.23

CIRCULAR LETTER 2-51
(To All First-Order Stations)

Subject: Preparation of Book, Serial and CND Messages for
Western Union

Effective upon receipt of this letter the following procedures will apply to the preparation of telegrams to be sent by Western Union:

1. Book Messages

Addresses shall be triple-spaced and only one address shall be on a line.

2. Serial Messages

Serial messages must carry a single address and never be booked, either with other serials or with other classes of traffic.

3. CND Messages

- (a) Messages covering CND traffic will not be included with other classes of messages.
- (b) If addresses are put on CND messages by a Weather Bureau office they may be booked provided no other class of traffic is included.

Close adherence to the above procedures is necessary to enable the Western Union Telegraph Company to handle Weather Bureau traffic more expeditiously and to simplify the preparation and audit of bills covering the charges. The cooperation of all Weather bureau personnel preparing telegrams will be appreciated.



F. W. Reichelderfer
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
January 5, 1951

File: k46
253

A-4.2

CIRCULAR LETTER NO. 3-51
(To all First-Order Stations)

Subject: Superior Accomplishment Salary Step Increases

- I. General--Additional step increases as rewards for superior accomplishment may be granted, within the limits of available appropriations, to those employees who distinguish themselves by performing their duties in an exceptionally efficient or outstanding manner. All employees, regardless of their grade, position, or level of responsibility, may be considered for such increases. It is the policy of the Bureau to encourage such advancements since they not only offer a reward for distinguished service but are an effective means of maintaining and stimulating employee morale.
- II. Eligibility--Additional step increases as rewards for superior accomplishment may be granted to employees of the Bureau selected as described in Paragraph V below, who:
 - 1 Have permanent or indefinite appointments in positions subject to the Classification Act or to which the provisions of the Act have been administratively extended by the Department;
 - 2 Are compensated on a per annum basis;
 - 3 Have not reached the maximum rate of compensation for the grade of their positions;
 - 4 Have not already received an additional step increase as a reward for superior accomplishment during the current waiting period specified for periodic step increase (52 calendar weeks in CPC schedules or GS-10 and below; 78 calendar weeks in GS-11 and above; and
 - 5 Have not received a cash award or efficiency award based on the same accomplishment.
- III. Standards--An additional step increase for superior accomplishment is considered to be one of the highest monetary awards for outstanding service which can be made by the Department. It is the Department's practice to recognize three general types of superior accomplishment for this purpose, as follows:
 - 1 Sustained work performance of a very high degree of efficiency for a period of at least three months immediately

preceding recommendation, supported by clear evidence of specific objective results;

- 2 Initiation and development of a very beneficial idea, method, or device which increases the efficiency or effectiveness of the public service, for which a cash award is deemed inadequate by the Employee Awards Board of the Department; or
- 3 A special act or service in the public interest of an unusual or distinctive character, related to official employment and over and above normal position requirements.

IV. Organization

A. Department of Commerce--The Employee Awards Board of the Department will be responsible for approving all additional step increases for superior accomplishment.

B. Weather Bureau

- 1 Secretary, Employee Awards Program--The Secretary, Employee Awards Program, for the Weather Bureau will receive recommendations from operating officials for additional step increases for superior accomplishment or may himself make such recommendations, and submit them to the Weather Bureau Employee Awards Committee. The Secretary also is responsible for arranging appropriate ceremonies and publicity for awards.
- 2 Employee Awards Committee--This Committee will examine the recommendations for additional step increases for superior accomplishment and, if it determines that the standards have been met, will approve and forward them with such comments as may be deemed appropriate, through the Chief of Bureau to the Director, Employee Awards Program, for review and action by the Department of Commerce Employee Awards Board.

V. Procedure

A. Initiation--There shall be a continuous systematic review of the work performance and accomplishment of employees by supervisors and the Employee Awards Committee to determine the eligibility and initiate appropriate action for granting additional step increases for superior accomplishment, not only for sustained work performance of an outstanding nature, but also in conjunction with the employee suggestion program. Some recommendations for additional step increases for superior accomplishment will be initiated by the Secretary of the Bureau's Employee Awards Program as a consequence of his consideration of proposed medal awards or employee suggestion payments. Any supervisor also may initiate such a recommendation, specifying his reasons in detail, and

forward it through official channels to the Secretary of the Employee Awards Program. The recommendation should include the following information:

- 1 Name of recommended employee, position title, grade and present salary,
 - 2 Last equivalent increase or last step increase for superior accomplishment (if any), amount and date,
 - 3 A statement recommending an additional step increase as a reward for superior accomplishment,
 - 4 A detailed factual account of the extent to which performance of duties has been better than the performance of other outstanding employees, or a detailed description of the special act or accomplishment on which the recommendation is based, and
 - 5 A statement of time or money saved, service improvements, or other objective results which have accrued from the employee's superior performance;
- B. Processing--In cases approved by the Employee Awards Board, The Board will prepare the statement required by Civil Service Commission Departmental Circular No. 540. The original of this statement will be transmitted to the Weather Bureau as its authority to grant the increase, and two copies also will be sent to the Civil Service Commission. The Central Office Personnel Division will officially effect the increase by preparing the action on SF-50 and will prepare an appropriate letter of commendation to the employee concerned. The effective date of the increase will be the first day of the next pay period following the date of the Board's approval. Recommendations disapproved by the Board will be returned through channels to the initiating office with a statement of the reasons for disapproval.



F. W. Reichelderfer
Chief of Bureau

Library

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
January 8, 1951

File : 146

A-4.2

CIRCULAR LETTER NO. 4-51
(To all First-Order Stations)

Subject: Efficiency Award Program

I. Purpose:

The purpose of this order is to establish policies and procedures concerning administration of the efficiency awards program established by the provisions of Title X of Public Law 429 (81st Congress).

II. General Provisions:

- A. Title X of Public Law 429, 81st Congress (the Classification Act of 1949) directs each department to make systematic reviews of its activities on a continuing basis. One of the purposes of these reviews is to identify units that are outstanding in efficiency and economy of operations, and supervisors and employees whose personal efforts have caused their units to be so outstanding they can be granted an efficiency award. This type of award will generally be made for group recognition, including supervisors, but may also be utilized to recognize individual accomplishments in appropriate instances.
- B. The efficiency awards authorized by Title X are closely related to the existing incentive programs providing awards for employee suggestions, described in Circular Letter 86-47, salary step increases for superior accomplishment, described in Circular Letter No. 3-51, and honor awards, described in Circular Letter No. 91-49. The efficiency awards program described in this order supplements these earlier incentive programs. Co-ordination between this new program and earlier award activities will be achieved by administering the new program through the Department's established award organization and the Bureau's Employee Awards Committee in the manner described in subsequent paragraphs of this Circular Letter.

III. Administration:

- A. General--The organization established to administer the Department's Honor Award Program, the Employee Suggestion Program, and proposals for superior accomplishment salary step increases, will be utilized to administer the new program of Efficiency Awards. The Plans and Program Management Office in the Bureau and the Office of Budget and Management at the Department level will be responsible for the analysis of recommendations for efficiency awards. The established employes

awards organization will evaluate the recommendations in accordance with pertinent standards and will determine the distribution and amounts to be paid for approved awards.

- B. Secretary, Employee Awards Program--The Secretary, Employee Awards Program for the Weather Bureau will receive recommendations from operating officials or others for efficiency awards as described herein. He immediately will refer each recommendation to the Chief of the Bureau's Plans and Program Management Office for careful analysis. When the case is returned, the Secretary will bring the recommendation to the attention of the Bureau's Employee Awards Committee.

- C. Employee Awards Committee--This Committee will review the proposal, including the views and recommendations of the Plans and Program Management Office. After reviewing the case, the Committee will make a determination as to whether the proposal meets the pertinent standards and the general criteria outlined in Paragraph IV and therefore merits consideration at the Department level. If so, the Committee will forward the entire case, through the Chief of Bureau to the Director, Employee Awards Program, for review and action by the Department's Employee Awards Board. If the Plans and Program Management Office's recommendation is adverse and the Committee is satisfied that the case has received adequate consideration, it shall be returned by the Committee to the originating official with an explanation of the reason for disapproval.

- D. Employee Awards Board--All recommendations for efficiency awards received by the Board from primary unit Employee Awards Committees shall be referred to the Department Budget Officer who shall have each recommendation carefully analyzed. If the Budget Officer's analysis is favorable, and the Board agrees that the proposal meets the standards and the general criteria outlined in Paragraph IV, the Board shall determine the distribution and amount of award. If an adverse recommendation is made by the Budget Officer, and the Board is satisfied that the case has received adequate consideration and does not meet the standards and criteria, the recommendation shall be returned disapproved, with an appropriate explanation to the Weather Bureau Employee Awards Committee.

- E. Payment of Awards--Primary units will be authorized to make efficiency awards by memorandum from the Employee Awards Board. Where a cash efficiency award is authorized, this memorandum will be used by the payroll office as authority for payment of the award in lieu of SF-50. Where salary step increases are authorized by the Board, SF-50 will be prepared. The type of action will be specified on SF-50 as "Efficiency Award Increase," and "Section 1002, PL 429--81st Cong." will be inserted in the Civil Service Authority block.

IV. Criteria for Efficiency Awards:

A. Origin of recommendations for awards--Recommendations for efficiency awards may originate:

- 1 As a result of the reviews and appraisals conducted by the Plans and Program Management Office. Whenever these reviews identify organizational units or employees whose superior accomplishments have contributed to outstanding efficiency and economy in administration, recommendations for awards will be made; or
- 2 On recommendations of supervisors whenever performance warranting such awards comes to their attention.

B. Criteria for recommending awards--Under the provisions of Title X, awards may be made to supervisors and employees within the Department whose superior accomplishments have contributed to outstanding efficiency and economy in administration, with the stipulation that the total amount of any such award may not exceed 25 per centum of the estimated savings to the Government due to such superior accomplishments. Supplement 1 to Bureau of the Budget Circular A-8 further limits efficiency awards to supervisors and employees for superior accomplishments in connection with their own work. Thus there are three criteria which must be met before an award may be made:

- 1 The superior accomplishments must have contributed to outstanding efficiency and economy;
- 2 There must be actual money savings before the award may be paid; and
- 3 The superior accomplishments must have been in connection with the employee's or supervisor's own work.

C. Preparation and submission of recommendations--Recommendations should be prepared in memorandum form and submitted in four copies, which will permit the Bureau Employee Awards Committee to retain one copy and forward three copies to the Employee Awards Board on all cases recommended for awards. Each such memorandum of recommendation must set forth the reasons why the accomplishments are believed to have contributed to outstanding efficiency and economy (with a full explanation of the circumstances which led to the activity, function, or organization unit being in such condition as to require the actions on which the recommendations are based), firm estimates of the dollar savings based on Paragraph V-C of this order, and a certification that the accomplishments were in connection with the employee's or supervisor's own work.

V. Authorized Awards:

- A. Efficiency Awards--Efficiency awards may be cash awards or increases in rates of basic compensation, which in the judgment of the Employee Awards Board are commensurate with the demonstrated superior accomplishments, except that the total amount of such awards or increases to any group of supervisors and employees may not exceed 25 per centum of the estimated savings to the Government, and except that no such cash award or increase in rate of basic compensation of any supervisor or employee may exceed an amount equal to three times the step increase of the applicable grade. Any such increase in basic compensation shall be at one, two, or three times the step increase of the applicable grade and shall be in lieu of any additional compensation as a reward for superior accomplishment under Title VII of the Classification Act of 1941.
- B. Shared or group awards--One of the intents of the efficiency awards program is to encourage group effort in securing increased efficiency and economy in Government. Where contribution to the improvement has been made by more than one employee or by a group of employees, all employees contributing, including supervisors, may share efficiency awards. Such grants may be in equal shares or to each employee in proportion to his contribution measured in terms of production records or such other criteria as apply. Shared or group awards for efficiency may consist either of cash awards of varying amounts or salary increases of one, two, or three steps for each employee in proportion to his contribution to the group achievement, subject to the limitations or amounts specified in Paragraph V-A above.
- C. Determination of amount of award--Awards normally will be in cash. Salary increases will be authorized by the Employee Awards Board only when savings are so great that limitation on the amount of cash awards would result in inadequate reward to employees. Estimated savings ordinarily should be evaluated in terms of demonstrable net dollar savings in the first full year of operation. When substantial nonrecurring cost is involved in the installation of an improvement which will be useful for a number of years, and therefore award on the basis of net first year savings would result in inadequate reward, the award may be based on estimated average annual savings over a period of years. Dollar savings may be demonstrated in terms of (a) lower unit cost on the same or smaller measurable production, i.e., lower operating cost, or (b) lower unit cost on increased volume of production, i.e., handling increased measurable volume for the same operating cost. However, such reductions in unit cost are not savings if they are the result of outside factors such as less complex work items being received, or are the result of or result in less effective operations or poorer quality production or service. In the case of lower unit cost or increased

volume of production, the amount of decrease in unit cost must be greater than that which could be normally expected as a result of the increased volume. No two employees may be given cash or salary increase awards for the same improvement except in a shared or group award; nor may any employee be given two awards for the same suggestion or achievement, except that whenever the actual first year savings are sufficiently greater than the estimate of savings on which the original award was based, supplementary awards of the same type may be made, subject to the limitations mentioned heretofore.

A handwritten signature in cursive script, reading "F. W. Reichelderfer". The signature is written in dark ink and is positioned to the right of the typed text.

F. W. Reichelderfer
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
January 25, 1951

File No. 055
700

A-3

CIRCULAR LETTER NO. 5-51
(To All First-order Stations)

Subject: Publication of statistical information affecting national security.

The Secretary of Commerce has brought to our attention a communication addressed by the President to the Director of the Budget on the above subject, with the request that all elements of the Department of Commerce cooperate fully with the Bureau of the Budget, which is designated as a centralized coordinating agency, in carrying out the instructions of the President.

In his communication the President indicates that the international situation at this time requires that we be prepared once more to impose such restrictions on the publication and dissemination of statistical information by agencies of the government as may be necessary in the interests of national security.

The President also recognizes that necessary as control over publication may be, we must also remember that it is in the national interest to keep such restrictions to a minimum. Statistical information needed by the Government and its citizens should be made available to the general public to the fullest extent compatible with national security.

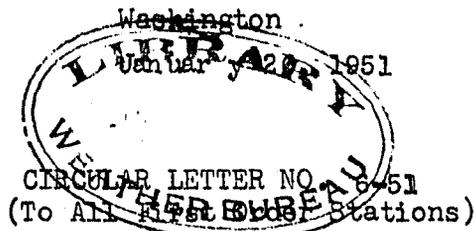
At present the international situation has not reached the degree of emergency that requires the general restriction on the publication and dissemination of meteorological information that existed during the war. The purpose of this Circular Letter is therefore to alert all personnel to be in readiness to effect such restriction if and when notified to do so by this office, and in the meantime for all supervisors to indoctrinate the personnel, and especially those who have joined the Bureau since wartime, with the importance of being constantly security minded and to have them familiarize themselves with the instructions for the conduct of the Security Program contained in Chapter G-20, Weather Bureau Manual.

Should any unusual requests for statistical meteorological data be received, which in the opinion of bureau personnel may involve national security, they should be submitted to this office for decision.


F. W. Reichelderfer,
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington

O-5.32
File: 613



Subject: Local Severe Storm Warning Networks

Reference: Circular Letter No. 66-49

Officials in areas subject to local severe storms are reminded that action should be taken to reactivate and strengthen local storm reporting networks before the arrival of the season during which such types of storms normally increase in frequency.

Plans should be reviewed and brought up to date as a step toward making desirable changes and correcting any weaknesses that may have developed last season. Time and travel funds permitting, personal contacts should be made with observers and cooperating organizations to renew enthusiasm and provide additional training. Occasional follow-up letters of friendly encouragement during the season may also be desirable. In both direct and indirect contacts with observers, the importance of prompt reporting should be stressed. This point should also be emphasized when contacting managers of telephone companies to renew arrangements for priority handling of storm reports from observers.

Meetings with radio station managers are desirable to create greater interest in the warning program when securing their renewed consent to provide immediate broadcasts of local severe storm bulletins phoned from local Weather Bureau offices. Arrangements for broadcasts should not be confined to one town but should include all radio stations in the area protected by the network. Officials may also want to consider furnishing radio stations with the four types of mimeographed announcement blanks ("alert", "progress", "reassuring", "all-clear") for use in copying messages received by phone. If samples of the blanks are needed they may be secured from WBAS, Kansas City.

Final plans should include provision for phoning warnings to the safety official or other responsible civic representative of each community in the network area that may be threatened by a given storm. As far as possible, these key individuals should provide further dissemination of messages to local industries and other interests.

The other side of this letter contains additional information that should be considered by all station officials.

F. W. Reichelderfer
Chief of Bureau

SUPPLEMENTAL INFORMATION ABOUT LOCAL SEVERE STORM WARNING NETWORKS

The annual reactivation of local severe storm warning networks provides an opportune time to furnish information to the local press about the importance of the network and the valuable community service being provided by the voluntary observers. The literature listed in the attachment to Circular Letter No. 66-49 may be useful for news stories. In addition, the May 1950 issue of Topics describes the Bureau's Outstanding Service Award, and an article on the back of the Washington Daily Weather Map dated September 21, 1950, describes local storm networks and storm cellar construction.

Information appearing in print at intervals during the season usually stimulates the observers to greater effort and also provides the public with factual data to help avert confusion during time of emergency. Most newspapers are interested in writing such stories if the basic information is provided.

Officials at offices where networks have not yet been established and where there is a need for reports of local severe storms to assist in a more complete discharge of responsibility should review Circular Letter No. 66-49 and its attachment. If additional information is needed in connection with problems peculiar to any office, the Central Office should be advised.

At a number of offices satisfactory coverage is apparently resulting from reports of local severe storms furnished from such places as satellite airport control towers, electrical sub-stations and state police offices rather than from individual observers. For all practical purposes, any such reporting system should be considered part of the Bureau's local severe storm network program. Officials who have not previously reported networks of this type should write the Central Office briefly describing the arrangements in effect and indicating their adequacy.

The Central Office should also be notified each time that network reports assist a local office to provide public warnings. Form 4064 may be used for this purpose, including enough information under "notes" to provide a complete description of each situation.

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

February 14, 1951

O-4.2

File: 612
630

CIRCULAR LETTER 7-51
(To All Stations Except SAWRS)

Subject: Observations of Water Equivalent of Snow ✓ rif

Reference: (1) C.L. 114-48
(2) Section 4000 of Circular N

In order that adequate information may be available for flood forecasting, a program for routine reports of water equivalent of snow is being established. Data will be observed in accordance with reference (2), except that reports will be with reference to total amount of snow on the ground, rather than only new snow-fall. Effective immediately, observations of water equivalent will be made each Monday by first-order observing stations, at approximately 1200 GCT, whenever the snow depth exceeds one inch.

Water equivalent data will be entered in inches and hundredths in Column 90 of Form 1130B or Column 61 of Form 1001B, preceded by the identification "WATER EQUIV.". Reports of these data will be transmitted by one of the following methods (if more than one of these facilities is available, the one appearing highest in the list should be used):

- (1) On Service C: in hundredths of inches, immediately following group 985s_ps_p in the Monday 1230 GCT observation, and separated from that group by a slant; e.g.,

98505/50 — snow depth 5", water equivalent .50"
98502/9 — snow depth 2", water equivalent .09"
98511/110 — snow depth 11", water equivalent 1.10"

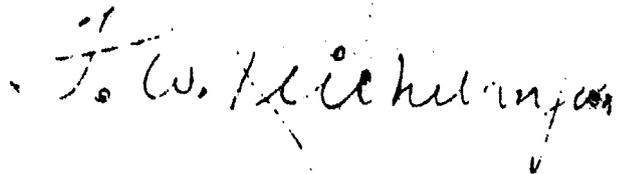
- (2) On Service A: as additive data in the 1228 GCT observation, in the code indicated in (1) above. (Note: Water equivalent will not be sent on Service A if it has been sent on Service C, even though snow depth (985s_ps_p) is sent on both Services.
- (3) By TWX, telephone, or telegraph, whichever is most economical.

River District Offices should also obtain routine reports of water equivalent from selected river and rainfall reporting substations by mail once a week, or as required. For inter-office use, these reports may be transmitted in accordance with reference (1). River District Offices in River Forecast Center areas will send a composite summary of these reports by TWX or telegraph to the River Forecast Center.

In addition to the foregoing routine reports, the River District Office through the Area Engineer may arrange for more frequent reports (twice weekly, daily, twice daily), and for reports from additional stations, whenever a potential

flood hazard from a heavy snow cover exists and there is a prospect of rapid snow melt. Arrangements may be made direct with first-order stations for more frequent reports, and through supervising stations for reports from second-order stations or cooperative substations on a gratis basis. For economy reasons, these reports should be requested by mail whenever practicable, but wire communications may be used under critical conditions. (The Central Office should be kept informed of such requests, but prior Central Office approval will not be necessary under emergency conditions.) Reports from these stations may be transmitted by one of the above methods, or by mail to the appropriate River District Office.

The Area Engineer will be responsible for general field coordination of this program. The River District Offices and River Forecast Centers should keep the Area Engineers advised of the conditions and actions taken in their respective districts or areas. In emergencies, when the Area Engineer cannot be contacted, the River District Offices are authorized to obtain additional reports directly from substations, or to request WBO's in their district to arrange for emergency reports. In addition, all first-order stations should be alert for any significant changes in snow conditions. In the event of pronounced snow melt in their area, or other indications of development of critical conditions, they are authorized on their own initiative to render emergency reports as frequently as considered necessary until, in their judgment, these reports are no longer required, or until otherwise instructed.



F. W. Reichelderfer
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
February 27, 1951

A-3.54

File: 458

400.2

Circular Letter No. 8-51
(To all first order stations)

Subject: Aerological Supplies

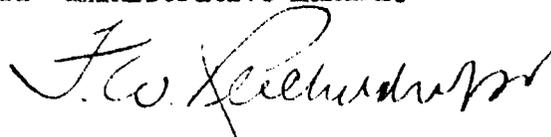
Reference: Circular Letter No. 112-49, dated October 7, 1949

The following instructions regarding aerological supplies are effective March 1, 1951, and supersede all previous instructions to the contrary:

1. Stations shall request aerological supplies quarterly, on August 1, November 1, February 1, and May 1. Requisitions shall be prepared in triplicate on WB Form 2044 F, "Requisition for Aerological Supplies from Depot Stations." The original and one copy shall be forwarded to the depot station and one copy shall be retained by the requisitioning office. After the requisition has been filled and shipment has been made, the depot station shall note the date and method of shipment on both copies of the requisition, retain the original, and forward the remaining copy to the requisitioning office.
2. A physical inventory of all aerological supplies on hand at each station shall be taken as of January 31, and a report made to the respective depot station.
 - (a) The 10-gram, 30-gram, and 100-gram balloons shall be distinguished by color and size.
 - (b) The 500-gram balloons shall be classified as natural rubber or neoprene.
 - (c) Penlight and water activated cells shall be listed separately.
3. A report of aerological supplies in each depot station, as of the last day of each month, shall be submitted to Materiel Section of the Central Office, on the prescribed form. The report for January, however, shall combine the inventories received from the stations with a similar inventory of supplies at the regional depot, and shall indicate estimates for the ensuing fiscal year.

Stations and depots shall arrange their stocks to assure the most effective use of supplies by using the older stocks first, thus maintaining fresh stocks on hand.

The above instructions will be incorporated in the next revision of Paragraph E-5003 of the Weather Bureau Administrative Manual.



F. W. Reichelderfer
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
March 1, 1951

O-5.23

File: 630

CIRCULAR LETTER NO. 9-51
(To All First-Order Stations)

Subject: Encoding Correction Messages for 6-Hourly, 3-Hourly,
and Upper Wind Reports

Effective 0001Z April 1, 1951, the following procedures will be followed in filing correction messages for 6-hourly, 3-hourly and upper wind reports:

- I. 6-hourly and 3-hourly reports (MT and TH). In counting groups, ignore letter identifications preceding some of the reports.
 1. When the error is in a group sent previously: Send the station index number, the number of the group to be corrected, a dash and then the corrected group, e.g., "405 5-64401" or "772 8-47858".
 2. When a whole group has been omitted or inadvertently included: Send the station index number, the word "add" or "delete", as appropriate, the number of the group, and the group, e.g., "644 add 5-10970" or "698 delete 7-70110".
- II. Upper wind reports; pibals, rawins, and rabals (PB).
 1. When the error is in a group sent previously: Send the station identification and time indicator, then a 6-figure group giving the level in thousands of feet, followed by the corrected data, e.g., "DCA03 252742" or "SUX15 032319". Note that zero is used to complete the 6-figure group to indicate levels below 10,000 feet and that odd level indicators are used in these correction messages although not used in regular transmissions. If the error was in the time indicator, the message would contain only the corrected first group, e.g., "OKCO2" or "ELNO4".
 2. When a whole group has been omitted or a level sent for which data is found to be so doubtful that it should be disregarded: Send the station identification and time indicator, the word "add" or "delete", as appropriate, and then the figure group to be added or deleted, e.g., "NVR03 add 353052" or "GRB15 delete 202432". In cases of additions or deletions use zero to complete the 6-figure group to indicate levels below 10,000 feet and always insert the indicator figure for odd levels.
- III. Correction messages that can be sent at the end of the sequence collection in which the report is scheduled will continue to be sent in complete form. This will in many instances obviate the need for repunching a tape that was correct but which, due to mechanical difficulty, was transmitted wrongly. Headings for correction messages will be transmitted in accordance with CAA instructions for the operation of communication facilities.

F. W. Reichelderfer
Chief of Bureau

W. F. McDonald
W. F. McDonald
By Direction

Cancelled; memo 9/3-1/63 FWR

REC 11/1/51

UNITED STATES DEPARTMENT OF COMMERCE
Weather Bureau
Washington

CWB
File No. 814.1

March 6, 1951

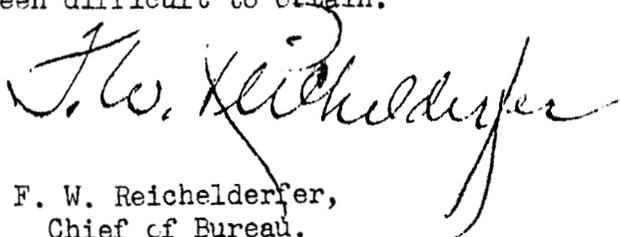
CIRCULAR LETTER NO. 10-51
(TO ALL STATIONS)

SUBJECT: Statement on Artificial Rainmaking.

The following statement has been issued for official use in Washington and is transmitted to field stations for information as to the Weather Bureau's position on this subject and as a guide to field officials in answering inquiries:

It has been demonstrated conclusively both in the laboratory and in the atmosphere that cloud droplets at temperatures below freezing can be converted into ice crystals by "seeding" with dry ice, silver iodide and other nucleating agents. This is an initial step in "making rain" by artificial means; in fact, the natural conversion of supercooled cloud droplets into ice crystals or snow is one of the processes by which rain commonly occurs under natural conditions. Of course it is quite erroneous to say categorically that rainmaking is impossible, but this statement is not enough. Among the important unanswered questions are -- under what particular atmospheric conditions can rain be induced by artificial means; how frequently do such conditions occur; and what are the quantitative results, that is, how much rain can be produced artificially? These questions are vital to an evaluation of the practical possibilities of rainmaking as a means for materially augmenting the water supply.

There have been hundreds of reports of great success in seeding clouds and producing heavy showers. The evidence indicates that in most of the cases showers thought to have resulted from seeding were actually the result of natural causes. Much more research in cloud physics and mechanism of formation of precipitation is necessary before the foregoing questions can be answered conclusively. The Weather Bureau has made hundreds of field tests and has published the results of observations. Many experimenters have reported only the rainmaking tests which they have considered successful and a factual picture of the possibilities has therefore been difficult to obtain.



F. W. Reichelderfer,
Chief of Bureau.

Library

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
March 14, 1951

File No. 041

R-3

CIRCULAR LETTER NO. 11-51
(to all first order stations)

Subject: Civil Defense Activities.

All Federal agencies have been requested to cooperate to the fullest extent possible with the Administrator of Federal Civil Defense. The Weather Bureau has been in touch with the above agency and is developing a plan for the participation of our personnel and facilities in the civil defense organization, both national and local. Meantime, all Weather Bureau officials are requested to cooperate with civil defense authorities at the State and local level, where final responsibility for civil defense rests.

Meteorological factors will play a significant role in coping with any disasters and emergencies that come under the jurisdiction of the civil defense organization. Accordingly, careful planning and coordination should be accomplished in the preparation of a defense plan. In general, the problems that might be brought to the attention of the meteorologist may be summarized under the following categories:

- 1) Preparation of appropriate, preliminary climatological studies, mainly wind roses with focal points at possible target sites to determine extent of areas to be affected under varying wind conditions.
- 2) Study of local sound propagation under varying conditions to determine the effectiveness of sonic warning systems.
- 3) In case of a near ground atomic explosion, compilation of surface and upper air wind data to determine "fall-out" areas where radioactive contamination is possible.
- 4) In case of an under-water explosion, consideration of the base surge and areas to be affected.
- 5) In case of concurrent precipitation, areas where contaminated rain may fall.
- 6) In an attack by aerosols, areas likely to be covered downwind.
- 7) Maintenance of power and communication facilities for reception of regular synoptic data and relay of district forecasts.
- 8) Maintenance of emergency communication facilities with the local civil defense control center, and detailing a competent meteorologist for emergency duty at local control center.

A series of brief administrative and technical papers with instructions on the above items and with further reading references is under preparation and will be issued as soon as practicable. Meantime, the best reference on the subject is The Effects of Atomic Weapons, Government Printing Office,

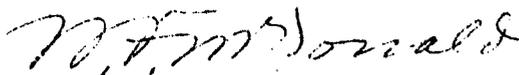
June, 1950. And much useful information is contained in Survival Under Atomic Attack, GPO, 1950. These are not available in quantity for distribution to Weather Bureau stations but are usually procurable through civil defense organizations.

It should be emphasized that the local Weather Bureau's role in any catastrophe, whether of a military nature or caused by natural phenomena, should be reexamined so that local officials and the general public will be served without interruption in such a crisis.

The Central Office would like to receive from each first order station, a brief account as to whether meteorology has been coordinated into local civil defense planning. These letters may be routed directly to the Central Office, Attention: Scientific Services Division. Dr. David M. Ludlum has been appointed special consultant for meteorological aspects of civil defense.

It is appreciated that at present there is no specific guidance for the local Weather Bureau Official in case he is approached by defense authorities. This letter is intended to convey preliminary information and to alert local officials to the desirability of supplying available information and such assistance as is feasible. If requests involve any considerable additional work not previously contemplated, prompt inquiry to the Central Office is advisable. As indicated above, further information on this subject will be sent to the field from time to time.

F. W. Reichelderfer
Chief of Bureau



W. F. McDonald
Assistant Chief of Bureau (Administration)
By Direction

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington

March 16, 1951

File: 131
x051

A-4.5

CIRCULAR LETTER NO. 12-51
(To All First-order Stations and Central
Office Divisions and Sections)

Subject: Reorganization of the Training Section

As of March 20, 1951, there will no longer be three Area Training Offices. Mr. Marion G. Talcott will remain at Kansas City as Field Training Officer and will be responsible for Bureau-wide observer training and training liaison between the Field and the Central Office. Former Area Training Officers, Messrs. Thomas W. Rule and David A. Lawson will be stationed in the Training Section in Washington, D. C., where they will be primarily concerned with developing new professional, subprofessional, and supervisory training programs and materials for the Bureau.

All correspondence concerning training matters which was formerly sent by field stations to the Western Area Training Office (Mr. Rule) or to the Eastern Area Training Office (Mr. Lawson) should therefore be sent to Mr. Talcott at 612 Fidelity Building, Kansas City 6, Mo. after March 20, 1951. Mr. Talcott will be responsible for the entire Refresher and Evaluation Examination Programs.

Because of the change-over in organization, and because of some important imminent changes in observational instructions, there will be no March Refreshers.

F. W. Reichelderfer
Chief of Bureau



W. F. McDonald
Assistant Chief of Bureau, Administration
By Direction

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
April 9, 1951

O-5.22

File: 761

615.2

630

CIRCULAR LETTER NO. 13-51
(To all First Order Stations)

Subject: Reporting Wind, Weather, Wave and Ice Data from
Substations on the Great Lakes

Reference: Circular Letters 32-49 and 24-50

A publication entitled "Code Circular-Great Lakes Substations" has been printed for use in coding reports from substations along the Great Lakes. A copy of this Code Circular is attached for information and additional supplies thereof will be furnished on request to the Central Office Publication Unit.

Existing arrangements for obtaining the data from substations will continue in effect. Substation 6-hourly reports will be transmitted on Service "C" in accordance with the times given in CAA drawing "M-10" for the transmission of "MT Reports". These reports will be entered on Service "C" as "MT Reports" in the order as scheduled in the Manual therefor and in the form shown in the Code Circular as follows:

Letter identification Nddff VVwwW ld_wd_wP_wH_w ICE.

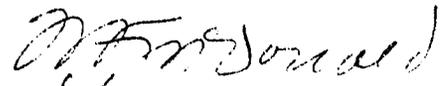
Great Lakes first-order and substations will add ICE information to their 6-hourly reports only during the spring season; such data to be reported until all ice has disappeared from the Lake in their respective vicinities. The Official in Charge at Detroit, Michigan has been assigned responsibility for notifying all Weather Bureau offices concerned as to the date when ICE reports should begin each year.

On Service "A" substation reports will be transmitted in accordance with the times given in CAA drawing "M-11" under the heading "Supplementary Reports" in the airway symbol form. In "Supplementary Reports", wind direction will be given in compass points, wind speed in miles-per-hour, visibility in miles and fractions and wave data indicated in a five-figure code group "ld_wd_wP_wH_w" as given in the Code Circular. ICE data will not be included in reports entered on Service "A".

Circular Letters No. 32-49 and 24-50 are now obsolete and should be destroyed.

Attachment

F. W. Reichelderfer
Chief of Bureau


W. F. McDonald
By Direction

U. S. Department of Commerce
Weather Bureau
Washington, D. C.

0-5.22

April 1, 1951

Code Circular - Great Lakes Substations

For convenience of observers in coding weather data entered on Form 1034A for transmission via Service C. Form of code: **iii Nddff VVwwW ld_{wdw}PwHw ICE.**

Symbol **iii** - Station Identifier

Symbol **VV** - Visibility

Symbol **N** - Total Cloud Amount

Code figure	Amount of Sky Covered (in tenths)	Code figure	Amount of Sky Covered (in tenths)
0	No clouds	5	6
1	1- and 1	6	7 and 8
2	2 and 3	7	9 and 9+
3	4	8	10
4	5	9	Sky obscured by rain, snow, fog, or other phenomena.

Code figure	Visibility in Statute Miles and Fractions	Code figure	Visibility in Statute Miles and Fractions
00	Less than 1/8	40	5
01	1/8 and 3/16	48	6
02	1/4	56	7
03	3/8	64	8
04	1/2	72	9
05	5/8	80	10, 11, and 12
06	3/4	81	13, 14, 15, and 20
08	1	82	25, 30, and 35
10	1 1/4	83	40 and 45
12	1 1/2	84	50, 55, and 60
14	1 3/4	85	65 to 90 inclusive
16	2	86	95 to 120 inclusive
18	2 1/4	87	125 to 185 inclusive
20	2 1/2	88	190 to 310 inclusive
24	3	89	315 or more
32	4		

Symbol **dd** - Direction From Which Wind is Blowing in 10's of Degrees

Symbol **d_{wdw}** - Direction From Which Waves Come in 10's of Degrees

CODE FIGURES	DIRECTION	CODE FIGURES	DIRECTION
00	Calm	19	185° to 194°
01	5° to 14°	20	195° to 204°-SSW
02	15° to 24°-NNE	21	205° to 214°
03	25° to 34°	22	215° to 224°
04	35° to 44°	23	225° to 234°-SW
05	45° to 54°-NE	24	235° to 244°
06	55° to 64°	25	245° to 254°-WSW
07	65° to 74°-ENE	26	255° to 264°
08	75° to 84°	27	265° to 274°-W
09	85° to 94°-E	28	275° to 284°
10	95° to 104°	29	285° to 294°-WNW
11	105° to 114°-ESE	30	295° to 304°
12	115° to 124°	31	305° to 314°
13	125° to 134°	32	315° to 324°-NW
14	135° to 144°-SE	33	325° to 334°
15	145° to 154°	34	335° to 344°-NNW
16	155° to 164°-SSE	35	345° to 354°
17	165° to 174°	36	355° to 4°-N
18	175° to 184°-S		

Used only with **d_{wdw}**

49 Waves confused, direction indeterminate

99 Waves confused, direction indeterminate, higher than 14 feet

Symbol **ff** - Wind Speed in Knots
(See table page 3)

Symbol **w** - Present Weather

Figures 00 to 49: No precipitation at the station at the time of observation.

Figures 00 to 19: No precipitation, fog, duststorm, sandstorm, or drifting snow at the station at the time of observation or during the preceding hour, except for 09.

Figures 00 to 03: No hydrometeors except clouds.

- | | |
|--|---|
| 00 Cloud development not observed or not observable. | } Characteristic change of the state of sky during past hour. |
| 01 Clouds generally dissolving or becoming less developed. | |
| 02 State of sky on the whole unchanged. | |
| 03 Clouds generally forming or developing. | |

Figures 04 to 09: Haze, dust, sand, or smoke.

- 04 Visibility reduced by smoke, e.g., veldt or forest fires, industrial smoke or volcanic ashes.
- 05 Dry haze.
- 06 Widespread dust in suspension in the air, not raised by wind at or near the station at the time of observation.
- 07 Dust or sand raised by wind at or near the station at the time of observation, but no well developed dust devil(s), and no duststorm or sandstorm seen.
- 08 Well developed dust devil(s) seen at or near the station within past hour, but no duststorm or sandstorm.
- 09 Duststorm or sandstorm within sight of station or at station during the past hour.
- 10 Light fog. †

- 11 Patches of shallow fog at the station, whether on land or sea, not deeper than about 2 metres on land or 10 metres at sea.
- 12 More or less continuous fog at the station, whether on land or sea, not deeper than about 2 metres on land or 10 metres at sea.

- 13 Lightning visible, no thunder heard.
- 14 Precipitation within sight, but not reaching the ground at the station.
- 15 Precipitation within sight, reaching the ground, but distant (i. e., estimated to be more than 3.1 miles) from station.
- 16 Precipitation within sight, reaching the ground, near to but not at the station.
- 17 Thunder heard, but no precipitation at the station.
- 18 Squall(s) within sight during the past hour.
- 19 Funnel cloud(s) within sight during the past hour.

Figures 20 to 29: Precipitation, fog, or thunderstorm at the station during the preceding hour but NOT at the time of observation.

- 20 Drizzle (not freezing)
- 21 Rain (" ")
- 22 Snow
- 23 Rain and Snow
- 24 Freezing drizzle or freezing rain
- 25 Shower(s) of rain
- 26 Shower(s) of snow, or of rain and snow.
- 27 Shower(s) of hail, or of hail and rain.
- 28 Fog.
- 29 Thunderstorm (with or without precipitation).

Figures 30 to 39: Duststorm, sandstorm, or drifting snow.

- 30 } Slight or moderate duststorm or sandstorm { has decreased during the preceding hour.
- 31 } no appreciable change during the preceding hour.
- 32 } has increased during the preceding hour.
- 33 } Severe duststorm or sandstorm { has decreased during the preceding hour.
- 34 } no appreciable change during the preceding hour.
- 35 } has increased during the preceding hour.
- 36 Slight or moderate drifting snow, generally low.
- 37 Heavy drifting snow, generally low.
- 38 Slight or moderate drifting snow, generally high.
- 39 Heavy drifting snow, generally high.

Figures 40 to 49: Fog at time of observation.

- 40 Fog at a distance at the time of observation, but not at the station during the last hour, the fog extending to a level above that of the observer.
- 41 Fog in patches
- 42 Fog, sky discernible
- 43 Fog, sky not discernible
- 44 Fog, sky discernible
- 45 Fog, sky not discernible
- 46 Fog, sky discernible
- 47 Fog, sky not discernible
- 48 Fog, depositing rime, sky discernible.
- 49 Fog, depositing rime, sky not discernible.

Figures 50 to 99: Precipitation at the station at the time of observation.

Figures 60 to 59: Drizzle.

- 50 Drizzle; not freezing, intermittent } slight at time of observation
- 51 Drizzle, not freezing, continuous } observation
- 52 Drizzle, not freezing, intermittent } moderate at time of observation
- 53 Drizzle, not freezing, continuous } of observation
- 54 Drizzle, not freezing, intermittent } thick at time of observation.
- 55 Drizzle, not freezing, continuous } observation.
- 56 Drizzle, freezing, slight.
- 57 Drizzle, freezing, moderate or thick.
- 58 Drizzle and rain, slight.
- 59 Drizzle and rain, moderate or heavy.

Figures 60 to 69: Rain

- 60 Rain, not freezing, intermittent } slight at time of observation
- 61 Rain, not freezing, continuous } observation
- 62 Rain, not freezing, intermittent } moderate at time of observation
- 63 Rain, not freezing, continuous } of observation
- 64 Rain, not freezing, intermittent } heavy at time of observation
- 65 Rain, not freezing, continuous } of observation
- 66 Rain, freezing, slight.
- 67 Rain, freezing, moderate or heavy.
- 68 Rain or drizzle and snow, slight.
- 69 Rain or drizzle and snow, moderate or heavy.

Figures 70 to 79: Solid precipitation not in showers

- 70 Intermittent fall of snow flakes } slight at time of observation
- 71 Continuous fall of snow flakes } observation
- 72 Intermittent fall of snow flakes } moderate at time of observation
- 73 Continuous fall of snow flakes } of observation
- 74 Intermittent fall of snow flakes } heavy at time of observation
- 75 Continuous fall of snow flakes } ' of observation
- 76 Ice needles (with or without fog).
- 77 Granular snow (with or without fog).
- 78 Isolated starlike snow crystals (with or without fog).
- 79 Ice pellets (sleet, U. S. definition).

Figures 80 to 99: Showery precipitation, or precipitation with current or recent thunderstorm.

- 80 Rain shower(s), slight.
- 81 Rain shower(s), moderate or heavy.
- 82 Rain shower(s), violent.
- 83 Shower(s) of rain and snow mixed, slight.
- 84 Shower(s) of rain and snow mixed, moderate or heavy.
- 85 Snow shower(s), slight.
- 86 Snow shower(s), moderate or heavy.
- 87 Shower(s) of soft or small hail with or without rain or rain and snow mixed.
- 88 } slight
- 89 } moderate or heavy
- 90 } Showers(s) of hail**, with or without rain or rain and snow mixed, not associated with thunder. } slight
- 91 Slight rain at time of observation
- 92 Moderate or heavy rain at time of observation
- 93 Slight snow or rain and snow mixed or hail* at time of observation
- 94 Moderate or heavy snow, or rain and snow mixed or hail* at time of observation
- 95 Thunderstorm, slight or moderate, without hail* but with rain and/or snow at time of observation.
- 96 Thunderstorm, slight or moderate, with hail* at time of observation
- 97 Thunderstorm, heavy, without hail*, but with rain and/or snow at time of observation.
- 98 Thunderstorm combined with duststorm or sandstorm at time of observation.
- 99 Thunderstorm, heavy, with hail* at time of observation.

† The U. S. term "light fog" is synonymous with the European term "mist".

** Refers to "hail" only.

* Refers to "soft hail," "small hail," and "hail."

Symbol W - Past Weather

(During 3 or 6 hours preceding the ACTUAL time of observation)

Code figure	Weather	Code figure	Weather
0	Clear or few clouds.	5	Drizzle.
1	Partly cloudy or variable sky.	6	Rain.
2	Cloudy or overcast.	7	Snow, rain and snow mixed, or ice pellets.
3	Sandstorm, duststorm, or drifting or blowing snow.	8	Shower(s).
4	Fog, smoke, or thick dust haze.	9	Thunderstorm, with or without precipitation.

NOTES: 1. When determining the appropriate values to be reported for code figures 0, 1, and 2, the following criteria will be used:

0—No clouds up to but not including one-tenth.

1—From one-tenth to five-tenths inclusive.

2—More than five-tenths.

2. The term "ice pellets" is synonymous with the U. S. term "sleet."

Symbol 1 - Wave Group Designator

Table for converting Miles Per Hour to Knots

Symbol P_w - Period of Waves

Code figure	Period
2	5 seconds or less
3	5 - 7 seconds
4	7 - 9 seconds
5	9 - 11 seconds
6	11 - 13 seconds
7	13 - 15 seconds
8	15 - 17 seconds
9	17 - 19 seconds
0	19 - 21 seconds
1	Over 21 seconds.
X	Calm or Period not determined.

mph	0	1	2	3	4	5	6	7	8	9
	knots									
0	0.0	0.9	1.7	2.6	3.5	4.3	5.2	6.1	6.9	7.8
10	8.7	9.6	10.4	11.3	12.2	13.0	13.9	14.8	15.6	16.5
20	17.4	18.2	19.1	20.0	20.8	21.7	22.6	23.4	24.3	25.2
30	26.1	26.9	27.8	28.7	29.5	30.4	31.3	32.1	33.0	33.9
40	34.7	35.6	36.5	37.3	38.2	39.1	39.9	40.8	41.7	42.6
50	43.4	44.3	45.2	46.0	46.9	47.8	48.6	49.5	50.4	51.2
60	52.1	53.0	53.8	54.7	55.6	56.4	57.3	58.2	59.1	59.9
70	60.8	61.7	62.5	63.4	64.3	65.1	66.0	66.9	67.7	68.6
80	69.5	70.3	71.2	72.1	72.9	73.8	74.7	75.6	76.4	77.3
90	78.2	79.0	79.9	80.8	81.6	82.5	83.4	84.2	85.1	86.0
100	86.8	87.7	88.6	89.4	90.3	91.2	92.0	92.9	93.8	94.7
110	95.5	96.4	97.3	98.1	99.0	99.9	100.7	101.6	102.5	103.3
120	104.2	105.1	106.0	106.8	107.7	108.5	109.4	110.3	111.2	112.0
130	112.9	113.8	114.6	115.5	116.4	117.2	118.1	119.0	119.8	120.7
140	121.6	122.4	123.3	124.2	125.0	125.9	126.8	127.7	128.5	129.4
150	130.3	131.1	132.0	132.9	133.7	134.6	135.5	136.3	137.2	138.1
160	138.9	139.8	140.7	141.5	142.4	143.3	144.2	145.0	145.9	146.8
170	147.6	148.5	149.4	150.2	151.1	152.0	152.8	153.7	154.6	155.4
180	156.3	157.2	158.0	158.9	159.8	160.7	161.5	162.4	163.3	164.1
190	165.0	165.9	166.7	167.6	168.5	169.3	170.2	171.1	171.9	172.8

NOTE: If the exact number of seconds for the period of the waves could be reported by two code figures, the lower code figure will be reported.

Symbol H_w - Height of Waves

Code figure	Height in feet	Height in meters
0	Less than 1	Less than 1/2
1	1 1/2	1/2
2	3	1
3	5	1 1/2
4	6 1/2	2
5	8	2 1/2
6	9 1/2	3
7	11	3 1/2
8	13	4
9	14	4 1/2
X	Height not determined	Height not determined
0	If 50 is added to d _w d _w :	If 50 is added to d _w d _w :
1	16	5
2	17 1/2	5 1/2
3	19	6
4	21	6 1/2
5	22 1/2	7
6	24	7 1/2
7	25 1/2	8
8	27	8 1/2
9	29	9
9	30 1/2	9 1/2

NOTE: (a) If the wave height is exactly midway between the heights corresponding to two code figures, the lower code figure will be reported.

(b) When the wave height exceeds 31 feet, the code figure 9 is reported for "H_w" and the plain language word "WAVE" followed by the actual height in feet is inserted in the message following the ld_wd_wP_wH_w group; e.g., ld_wd_wP_w9 WAVE 35, etc.

Symbol ICE - Ice Information Designator, to be followed by terms taken from the tables below to give Description, Thickness, Effects on Navigation and Sudden Changes in Lake Ice.

1. Description of Ice: A term to describe the ice as observed will be taken from the following list:

	<u>Term</u>	<u>Description</u>
Movement of Ice	FAST:	Stretches of unbroken ice which are fast to the shore.
	DRIFT:	All lake ice which is not fast to the shore.
Size of Ice Area	FIELD:	Large bodies of ice 1000 yards or more in width, not necessarily free or fast to the shore; the limit of which cannot be seen.
	FLOE:	Medium size bodies of ice ranging from 100 yards to 1000 yards in width.
	CAKE:	Small bodies of ice less than 100 yards in width.
	PANCAKE:	Small pieces of ice less than 3 yards in diameter, usually oval or disc shape, uneven in texture, with raised rims on the surface; sometimes the pieces of ice are interfrozen.
Age of Ice	BLUE:	Fairly level and flat sheet of clear ice, having a blue or black appearance unless covered with some snow; may be fast to the shore.
	ROTTEN:	Honeycombed ice formation resulting from melting. It is sometimes called needle ice.
Surface Features	JAMMED:	Broken ice caught in constricted areas such as rivers, channels or harbors. The jamming may be caused by water currents or by pressure of the wind.
	WINDROW:	Hummocky ice which has been pressed up into heavy layers of irregular size and shape by strong winds; usually from nearby leads of open water and often piled up against the shore or other obstruction.

2. Thickness of Ice: The thickness of ice will be indicated in inches; that is, ice twenty inches thick should be sent as "20".

3. Effects of Ice on Navigation: A word/s taken from the list of terms which follows will be used to indicate the effect of ice on navigation:

<u>Term</u>	<u>Description</u>
UNOBSTRUCTED:	Navigation unobstructed.
CLOSED CRAFT:	Navigation closed to small craft, difficult for low-powered steamers.
DIFFICULT:	Navigation possible only for large vessels.
STEAMERS:	Navigation possible only for large vessels constructed to withstand ice pressure.
ICEBREAKERS:	Navigation possible with assistance of icebreakers.
CHANNEL:	Channel open in solid ice.
CLOSED:	Navigation closed.
UNKNOWN:	Navigation conditions unknown (that is, owing to bad weather).

4. Sudden Changes in Ice Conditions: A word to indicate sudden changes in ice conditions at the vicinity of the station should be added when appropriate; that is, "FREEZING" or "THAWING".

Note: A slant or slants (/ or //) will be inserted in the five figure message groups to replace any missing data; however if no information is available on waves or ice, the groups for reporting such data will not be included in the message.

Examples of coded reports prepared for entry on the teletype circuits might be as follows:

Substation wind, weather, wave and ice report:

RGR 13009 8002/ 12621 ICE DRIFT 12 DIFFICULT FREEZING

Substation wind, weather and ice report (no waves):

TPT 42013 64102 ICE FAST 22 CLOSED

Substation wind, weather and wave report (no ice):

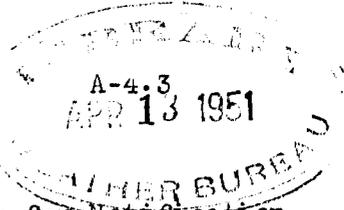
WFP 80218 32606 10243

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UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington
April 10, 1951

File 124

CIRCULAR LETTER NO. 14-51
(To all First Order Stations)



Subject: Military Duty, and Procedure for Notification
to Central Office

Reference: Circular Letter No. 73-50, dated 10-11-50,
File: 130.4, A-4

Because of procedures now being used by some units of the Armed Forces in calling men into service it is necessary to make minor changes in the method of reporting to the Central and Regional Offices. In some cases employees receive orders to report for a five-day period during which it is determined whether or not they are physically and otherwise acceptable for extended active duty. If acceptable they are given approximately thirty days notice in which to arrange personal affairs and report for duty. In other cases the first order is for extended active duty.

Hereafter, instead of reporting by telegram all reports will be made by airmail with the original direct to the Central Office and a copy to the Regional Office. A report should be made when an employee:

1. Decides to volunteer for active duty.
2. Receives orders to report for a processing period.
3. Receives orders to report for extended active duty.
4. Receives notice, after a processing period, that he will not be called to active duty.
5. Receives any changes in previous orders.

Each report must make clear which of the above situations is involved, the branch of service, the address of the office issuing the orders, the dates, and any other pertinent information. Any additional information specifically requested by the regional office should also be included.

F. W. Reichelderfer
Chief of Bureau

A handwritten signature in cursive script, appearing to read "W. F. McDonald".

W. F. McDonald
Assistant Chief of Bureau (Administration)
By Direction

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
April 10, 1951

File No. 054.2
921

0-2.13

CIRCULAR LETTER NO. 15-51 *rcit*
(To all First-Order Stations)

Subject: Disposition of Meteorological Records from
Coast Guard and Lightship Stations.

In anticipation of requests for summarizations of meteorological records made at Coast Guard Land Stations and Lightship Stations it is necessary that these records, autographic and manuscript, be filed in a location closely associated with facilities for card-punching, processing and summarizing these data.

A recent survey of field stations that have been closely associated with the supervision of the meteorological duties at these Coast Guard Stations or have been maintaining a file of the meteorological records therefrom, shows that but few have need for retention of the records on a permanent basis.

It has therefore been decided to have all of these records, hereinafter referred to as Coast Guard records but including those from Coast Guard Land Stations and Lightship Stations, both autographic and manuscript, deposited with the New Orleans Tabulation Unit. The following instructions for their final disposition will accordingly be considered in effect as of this date:

1. Present routing procedures from originating Coast Guard Stations to supervising and checking stations, Section Centers, or any Weather Bureau Office where either temporary or permanent file of these records are maintained, will continue.
2. Coast Guard original records for the period prior to 1950 will be shipped to the New Orleans Tabulation Unit at the earliest opportunity.
3. Coast Guard original records for 1950 and subsequent years will be shipped to the New Orleans Tabulation Unit annually after retention of a complete year of the records at the stations maintaining a current file - e.g., the records from January to December 1950, will be forwarded to the New Orleans Tabulation Unit shortly after December 31, 1951.
4. All shipments of Coast Guard records to the New Orleans Tabulation Unit will be accompanied by a letter listing the contents of each shipment, with a copy of the letter forwarded to the Central Office marked: "Attention: C&HS Division".

5. All boxes or packages containing these Coast Guard records will be plainly marked "Coast Guard Records".

The above instructions do not apply to any Forms 1009 or weighing raingage charts that may originate at certain Coast Guard Stations. These records should continue to be routed as heretofore to the appropriate Section Center.

For those stations not involved in the supervision, checking, or filing of Coast Guard meteorological records, this Circular Letter is for information only.

F. W. Reichelderfer,
Chief of Bureau



W. F. McDonald
By direction

Library

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
April 17, 1951

A-3.5
File: 402
400.2

CIRCULAR LETTER No. 16-51
(To All First Order Stations)

Subject: Certification as to Compliance with Ceiling Price Regulations.

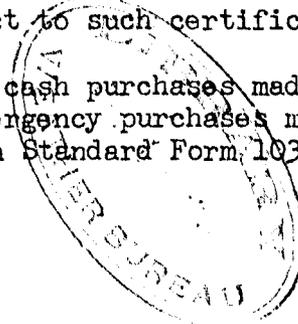
Personal Property Management Regulation No. 17 issued by the General Services Administration March 14, 1951 requires that, effective April 15, 1951, there shall be incorporated a provision reading substantially as follows in all invitations for bids, negotiated contracts and informal quotations for supplies or services subject to price ceilings:

"The contractor warrants that the prices herein are not in excess of applicable ceiling prices established by the Economic Stabilization Agency or other authorized Government agency and in effect upon the date hereof for the supplies or services to be furnished hereunder."

The word "contractor" in the above clause may be changed to "bidder" where appropriate.

Each purchase order or other form of commitment issued (except those issued in connection with a contract known to include the foregoing certification) shall be made subject to such certification.

This regulation will not apply to cash purchases made and charged on reimbursement accounts; nor to emergency purchases made without issue of purchase orders and paid for on Standard Form 1034.



F. W. Reichelderfer
Chief of Bureau

W. F. McDonald
W. F. McDonald
Assistant Chief of Bureau (Administration)
By Direction

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25

File No. 433
x630

May 21, 1951

0-5.32

CIRCULAR LETTER NO. 17-51
(To all First Order Stations)

Subject: Joint National Facsimile Network

Facsimile has been used for transmitting weather maps and data for a number of years but not until 1947 was a joint network of stations developed in the United States for this purpose. A great deal of the original work involved in setting up the present facsimile circuit was done by the Air Weather Service of the Air Force. The Air Force continues to operate the circuit, but it is used also by the Navy, Air National Guard, and Weather Bureau, and there is close cooperation between agencies in determining the nature and scheduling of material on the circuit. Several commercial airlines also have drops on the network.

Material transmitted by facsimile originates for the most part in the WBAN Analysis Center in Washington, D. C. The number of transmissions per day is limited to about 55 to 60 since it takes about 22 minutes for complete transmission of one 12" x 18" chart and an interval must be set aside for a daily circuit line-up. To accommodate the variety of users in the best way possible a schedule of transmissions is arranged to get the analyzed material in the field station as soon as possible after completion. The present 24-hour schedule is attached. It is subject to change from time to time following discussions between representatives of the using agencies.

It is the purpose of this letter to bring to the attention of field stations the current facts regarding facsimile and to help determine its potential usefulness to the Weather Bureau. Installation of facsimile equipment at a station is relatively expensive, varying from three to six thousand dollars yearly for machine rental, maintenance, supplies, and line charges according to distance from connecting point. For this reason it has not been possible to install equipment at as many locations as might profitably use the transmitted data. In the past two years several experimental installations have been made in an effort to evaluate the usefulness of facsimile maps in the field. Reports from these stations indicate that in general the material received is highly useful and can replace most or all on-station plotting.

At WBAS St. Louis, Mo., facsimile was installed on March 10, 1950. A report from that station in October 1950 said in part:

"Maps and charts obtained by this process were substituted immediately for all manuscript maps and have been used exclusively since that time. They have been found fully adequate for the local forecasting, briefing and consultation program. . . Advantages of the facsimile program are more and better upper air charts, more prognostic charts including the 5-day surface prognostics, savings in manpower, and smoothing out of peak work loads. . . Under a manuscript map program,

demands for charting and analyzing were greatest coincident with greatest demands for briefing and observing. Facsimile eliminates one of these three simultaneous sources of increased workload in bad weather. . ."

At WBO Chicago, Ill., (a forecast center) facsimile was installed on May 22, 1950. A report from that station in January 1951 said in part:

"Loss of transmissions for various reasons, mostly improper phasing, amounts to less than 2%.... Surface charts -- adequate for briefing but current density of reports inadequate for forecasting. Legibility of data excellent.... Pibal charts -- these charts...are excellent with an extremely high degree of legibility. Constant pressure charts -- the charts, as transmitted are satisfactory for use by forecast centers.... However most of them are received just too late for utilization by the afternoon and early morning forecasters. This office has eliminated the plotting of the 850-, 700-, and 200-mb. surfaces but we plot a very complete 500-mb. chart. Raob charts -- are used as sent... This office plots about 5 raobs which are useful in forecasting for this district but are not transmitted by (facsimile). Prognostic and 5-day charts -- received in excellent condition and on-station plotting has been eliminated."

At the present time facsimile connections to the network have been or are being installed at 9 field locations: New York, Newark, Detroit, Chicago, Nashville, St. Louis, Des Moines, Omaha and Wichita. In order to develop an overall plan for future installations we would like to have all other stations review their operations to determine if facsimile would be of appreciable benefit. Since many military installations are equipped with facsimile, local officials may be able to observe it in operation by visiting military weather offices in the vicinity. If this is not feasible a few samples of transmitted charts can be furnished field stations by the Central Office upon request. In making the station review it should be kept in mind that for the immediate future it is necessary to offset the cost of local facsimile installations by reducing the existing station complement by one or two positions. In the past, employees have not been separated immediately when facsimile was installed but rather the reduction was made at the station as vacancies occurred. It is expected that this procedure will be followed in the future.

We would like to have recommendations from stations where it is believed that installations would materially assist in daily operations. Included in the recommendation should be a statement as to possible personnel complement reductions as offsets for facsimile installations.

There is no deadline for submission of recommendations; we will be glad to receive them at any time. For use in initial planning for the next fiscal year (1952) we will consider all recommendations received by July 1, 1951.


F. W. Reichelderfer,
Chief of Bureau.

Attachment

FACSIMILE TRANSMISSION SCHEDULE
 WBAN ANALYSIS CENTER
 March 1, 1951

<u>Time of</u> <u>Tmstn.</u> GMT (EST)	<u>Chart</u> <u>For*</u> GMT	<u>Content</u>	<u>Chart</u>
0000(1900)		30-Hr. Sfc. and 36-hr. 700 Mb. Progs. ^a	Sect 4 U.S.
0022(1922)		12-Hr. 300 mb. and 200 Mb. Progs. ^b	Sect 8 U.S.
0044(1944)	2100	Winds Aloft. 2, 4, 6, & 8 Thsd. Ft.	WRC 8-14A
0106(2006)	2100	Winds Aloft. 10,12,14, & 16 Thsd. Ft.	WRC 8-14A
0128(2028)	2100	Winds Aloft. 20,25,30,35 Thsd. & Hi'er.	WRC 8-14A
0150(2050)		None--Circuit released to AT&T until 0312 GMT	
0312(2212)	0030	Surface Analysis	Sect 1 U.S.
0334(2234)	0030	Surface Analysis, cont'd	Sect 2 Can.
0356(2256)	0030	Surface Analysis, cont'd	Sect 3 Pac.
0454(2354)		6-Day Forecast (Tue.& Fri.(GMT) only) ^d	Part 1
0516(0016)		6-Day Forecast (Tue.& Fri.(GMT) only) ^d	Part 2
0538(0038)		24-Hr. 300 Mb. and 200 Mb. Progs. ^e	Sect 8 U.S.
0600(0100)	0300	Winds Aloft. 2,4,6, & 8 Thsd. Ft.	WRC 8-14A
0622(0122)	0300	Winds Aloft. 10,12,14,16 Thsd. Ft.	WRC 8-14A
0644(0144)	0300	Winds Aloft. 20,25,30,35 Thsd. & Hi'er.	WRC 8-14A
0706(0206)	0300	RAOBS, plotted to 400 mbs. eastern	WRC 9-13
0728(0228)	0300	RAOBS, plotted to 400 mbs. Western	WRC 9-14
0750(0250)	0300	850 Mb. Chart.	Sect 4 U.S.
0820(0320)	0300	700 Mb. Chart	Sect 5 U.S.
0842(0342)	0630	Surface Analysis	Sect 4 U.S.
0904(0404)		12-Hr. Surface Prog. ^f	Sect 4 U.S.
0926(0426)	0300	700 Mb. Chart, cont'd	Sect 6 Pac.
0948(0448)	0300	500 Mb. Chart	Sect 5 U.S.
1010(0510)	0300	500 Mb. Chart, Cont'd.	Sect. 6 Pac.
1032(0532)	0300	300 Mb. Chart	Sect 5 U.S.
1054(0554)	0300	RAOBS, Plotted, above 400 Mbs.	WRC 9-15
1116(0616)	0300	200 Mb. Chart	Sect 5 U.S.
1138(0638)	0630	Surface Analysis, Cont'd. (Ckts. 10202-4)g	Sect 7 N. Atl.

(Continuation)
 FACSIMILE TRANSMISSION SCHEDULE
 WBAN ANALYSIS CENTER
 March 1, 1951

<u>Time of</u> <u>Tmstn.</u> <u>GMT (EST)</u>	<u>Chart</u> <u>For*</u> <u>GMT</u>	<u>Content</u>	<u>Chart</u>
1200(0700)		30-Hr. Sfc. and 36-Hr. 700 Mb. Progs. ^a	Sect 4 U.S.
1222(0722)		12-Hr. 300 Mb. and 200 Mb. Progs. ^b	Sect 8 U.S.
1244(0744)	0900	Winds Aloft, 2,4,6, & 8 Thsd. Ft.	WRC 8-14A
1306(0806)	0900	Winds Aloft. 10,12,14, & 16 Thsd. Ft.	WRC 8-14A
1328(0828)	0900	Winds Aloft. 20,25,30,35 Thsd. & Hi'er.	WRC 8-14A
1350(0850)		54-Hr. Surface Prog. ^c	Sect 4 U.S.
1412(0912)		None--Reserved for tmstn. by Hickam AFB, Hawaii	
1450(0950)	1230	Surface Analysis	Sect 1 U.S.
1534(1034)	1230	Surface Analysis, cont'd	Sect 2 Can
1556(1056)	1230	Surface Analysis, cont'd	Sect 3 Pac
1618(1118)		$\frac{1}{2}$ N. Heml.) Trans. by Andrews AF Base	6-4-L
1640(1140)		$\frac{1}{2}$ N. Heml.) Trans. by Andrews AF Base	6-4-K
1738(1238)		24-Hr. 300 Mb. and 200 Mb. Progs. ^e	Sect 8 U.S.
1800(1300)	1500	Winds Aloft. 2,4,6, & 8 Thsd. Ft.	WRC 8-14A
1822(1322)	1500	Winds Aloft. 10,12,14,16 Thsd. Ft.	WRC 8-14A
1844(1344)	1500	Winds Aloft. 20,25,30,35 Thsd. & Hi'er.	WRC 8-14A
1906(1406)	1500	RAOBS, plotted to 400 Mbs. Eastern	WRC 9-13
1928(1428)	1500	RAOBS, plotted to 400 Mbs. Western	WRC 9-14
1950(1450)	1500	850 Mb. Chart	Sect 4 U.S.
2020(1520)	1500	700 Mb. Chart	Sect 5 U.S.
2042(1542)	1830	Surface Analysis	Sect 4 U.S.
2104(1604)		12-Hr. Surface Prog. ^f	Sect. 4 U.S.
2126(1626)	1500	700 Mb. Chart. Cont'd.	Sect 6 Pac.
2148(1648)	1500	500 Mb. Chart	Sect 5 U.S.
2210(1710)	1500	500 Mb. Chart, cont'd.	Sect 6 Pac.
2232(1732)	1500	300 Mb. Chart	Sect 5 U.S.
2254(1754)	1500	RAOBS, plotted, above 400 Mbs.	WRC 9-15
2316(1816)	1500	200 Mb. Chart	Sect 5 U.S.
2338(1838)	1830	Surface Analysis, cont'd (Ckts. 10202-4)g	Sect 7 N. Atl.

* Time of observations on which chart is based.

a 0000Z tmstn. verifies at 0300Z & 0030Z resp.; 1200Z tmstn. at 1500Z & 1230Z resp.; each on the following day.

b 0022Z tmstn. verifies at 0300Z, and 1222Z tmstn. at 1500Z, each on same day as tmstd.

c Verifies 1230Z of second day.

d Prepared by USAF officer detailed to Weather Bureau Extended Forecast Section.

e 0538Z tmstn. verifies 1500Z same day; 1738Z tmstn. at 0300Z next day.

f 0904Z tmstn. verifies 1830Z same day; 2104Z tmstn. at 0630Z next day.

g At 1138Z and 2338Z, Travis AFB, Calif., tmsts. Pac Surf Anal. to Western circuits.

UNITED STATES DEPARTMENT OF COMMERCE
U. S. WEATHER BUREAU
Washington 25

June 13, 1951

File: 038.1

R-3.1

CIRCULAR LETTER NO. 18-51
(To All First Order Stations)

Subject: Fees for station publications

- References: (1) Memorandum to all first-order stations dated April 7, 1950
(2) Circular Letter No. 3-48, dated January 13, 1948
(3) W.B. Manual, vol. III, Chapter C-06, dated March 30, 1951

In accordance with policies outlined in the above references, the Bureau has been authorized by the Department to assign a subscription price of 30 cents per month to the following classes of daily publications issued by certain field offices and the Central Office: Daily Weather Bulletins; Daily Weather and River Bulletins; Daily River Bulletins; Daily Crop (Cotton, Corn, Wheat, Broom Corn, etc.) Bulletins; and other similar publications.

The subscription price is to become effective at the earliest possible date; in no case should this be later than January 1, 1952. The effective date, to be determined by each official in charge at stations issuing these publications, depends on time required to notify recipients and permit them to order subscriptions, and the time at which orders for formographs are placed.

Upon change-over to a subscription basis, each bulletin will carry the following statement of selling price information: "Subscription price: 30 cents per month. Address orders and renewals only to Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., with remittances payable to Treasurer of the United States. Orders should give both the title of this publication and the city at which it is issued." It is, of course, still permissible for stations to accept subscription fees for forwarding to the Superintendent of Documents in accordance with previous instructions, but we prefer not to encourage this practice.



Free distribution of the daily bulletins will continue to be governed by the provisions of Circular Letter 3-48 and W. B. Manual, vol. III, Chapter C-06.

Concurrently with the change-over to a subscription basis, the daily bulletins will be issued only under one of the following titles, the appropriate title to be selected by the official in charge and approved by the Central Office according to the criteria indicated:

1. Daily Weather Bulletin: Any daily bulletin that contains weather information (forecasts and/or observations) but does not contain river data.
2. Daily River Bulletin: Any daily bulletin that contains river information but does not contain weather information.
3. Daily Weather and River Bulletin: Any daily bulletin that contains both weather and river information. Transposition of the words "weather" and "river" in this title is not permitted.

These criteria for titles are based on information included in the bulletins, thus avoiding such misnomers as "Daily Crop Bulletin," "Daily Cotton Bulletin," etc.

To effect the provisions of this Circular Letter, each station that issues a daily bulletin should take the following actions:

1. As soon as possible, submit to the Central Office (Attention: Editorial Section) for clearance the proper title of the publication and the date (January 1, 1952 or earlier) on which the change-over to a subscription basis and in some cases a new title is to be made. In determining the date, adequate time must be provided to notify recipients of the subscription rates and ordering procedure, for them to place orders with the Superintendent of Documents, and if necessary, for the station to procure new formographs or duplimat masters.

At stations where the title of the bulletin will not be changed, price information can be typed in on the formographs currently in supply and the change to a subscription basis need not wait for the next order of formographs. Stations at which the title will be changed should convert to the new title and the

subscription basis at the time of ordering a new supply of formographs or duplimat masters, but the conversion date should not be later than January 1, 1952, even though a small supply of formographs will still be on hand on that date.

When ordering the formographs, a sample showing the new title and subscription information should be included with the requisition. Sixty days should be allowed for delivery.

2. Upon receipt of Central Office clearance of title and effective date, notify each recipient who is not entitled to a free subscription that distribution after the predetermined date will be made on a paid subscription basis, and advise him to place his subscription order immediately with the Superintendent of Documents. His order should give title (the new title if a change is to be made) and place of issuance of the publication, and the effective date of the subscription, and should include remittance for as many months as he desires his subscription to run without renewal.
3. After the effective date, distribute the publication only to paid subscribers, a list of which will be furnished by the Superintendent of Documents, and to those entitled to free copies in accordance with references.

The Daily Weather Bulletin issued at New York City is excepted from the established price of 30 cents per month, and will continue to carry the previously established price of 45 cents per month.

This letter is sent for information only to those stations that do not issue daily bulletins.



F. W. Reichelderfer
Chief of Bureau

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

File No. 114
051.1

June 26, 1951

AO-1

CIRCULAR LETTER NO. 19-51
(To All First-order Stations)

Subject: Choice of Principal Assistant

As a result of the many recent reallocations, particularly of Meteorological Aids to GS-7 General Service Meteorologists, a number of stations now have two or more employees in the grade appropriate for Principal Assistant. The most frequent case is that of the station with a GS-9 Meteorologist in charge and a number of GS-7 assistants. This and similar cases bring up the problem of choosing the Principal Assistant.

It is not against Civil Service grade policy to select from all the assistants in the same grade one to act as Principal Assistant. However, the job descriptions for assistants at the GS-7 and higher grades allow them to assume responsibilities by delegation from the meteorologist in charge and to act in his stead by delegation. This permits a rotation or distribution, between all assistants of appropriate grade, of the responsibilities ordinarily assigned to the Principal Assistant.

There is merit in both the individual assignment and in the rotation. Discussion in the Central Office and in the field has in general arrived at a preference for rotation if personnel aptitudes and qualifications permit. The decision is that of the meteorologist in charge of the station and in making it he must balance individual preferences, public service needs, and his responsibility for personnel development. It is the latter item which provides the strongest support for the rotation scheme.

The meteorologist in charge should consider that the personnel assigned to his station are on their way to greater responsibilities and higher grades. It may be inconvenient to think along these lines and even more inconvenient to work along these lines, but each station is also a training unit. More specifically it is a developmental unit where personnel are trained by assignment of more and more responsible work over which there is less and less supervision as the training takes effect. This adds to the better-known responsibilities of the meteorologist in charge the responsibility for developing employees for more important assignments. He can do it in part by allowing them the opportunity to act as his Principal Assistant and, when required, in his stead. He can spread more widely the maturity of viewpoint that such responsibility develops by rotating the assignment.

This does not mean that the rotation must be mathematically precise. There may be legitimate station factors that prevent it. There may even be times when inequality of experience among the station personnel may make it necessary to designate, for instance, a GS-6 Meteorological Aid as Principal Assistant temporarily although GS-7's are included in the staff. This should be a transition device while the GS-7's gain the appropriate experience. When rotation is practiced, however, the frequency and variation of the rotation

should depend on the qualities and abilities shown by the assistants. The assignment should be considered as a reward, a stimulus, and an opportunity. On the part of the meteorologist in charge, he should remember that the business of personnel development on the job requires that he have the courage to assume a calculated risk, since human beings are not entirely predictable.

Each Official in Charge of the type of station discussed should, as a matter of record, keep the Central Office and the Regional Office informed of his choice of Principal Assistant and of any change in his selection, whether periodic or otherwise.



F. W. Reichelderfer
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25

File: 630.2
630
212

July 2, 1951

A-3.3

CIRCULAR LETTER NO. 20-51
amending Circular Letter No. 18-48
(To all First Order Stations)

Subject: Reports of Expenditures for Communications

A copy of each monthly report of toll expenditures, prepared on Weather Bureau Form 1442 at a station in the United States or Alaska, will be forwarded to the Regional Office, effective with the report for July, 1951.



F. W. Reichelderfer
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25, D.C.
July 17, 1951

File No. 051

AO-1

CIRCULAR LETTER NO. 21-51 *ref*
(To All First-Order Stations)

Subject: Change in Organizational Title of "Official in Charge"

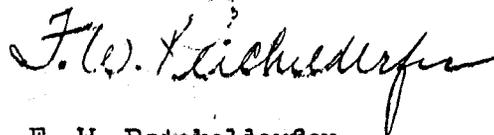
Starting immediately the working title "Meteorologist in Charge" is to be substituted for the more generally used Bureau title "Official in Charge" at all stations except those under the supervision of another station in the same city or locality. If the position is other than Meteorologist, the working title will so indicate; for example, "Observer in Charge."

The title of the airport station supervisor working under the direction of a city office Meteorologist in Charge will now become "Chief Airport Meteorologist" instead of "Official in Charge." The title of the city office supervisor, working under the direction of a Meteorologist in Charge at the airport, will be his working title, such as Meteorologist, Climatologist, or Section Director.

It will be satisfactory to continue using forms bearing the former titles until they are exhausted. Records will be corrected as new job descriptions or other changes become necessary.

The relationship indicated for locations with multiple offices is the basis of the slightly different station listing in the personnel roster for December 31, 1950, to which attention is now called. In all localities with multiple offices the office with a Meteorologist in Charge is indicated by a city name in all capitals. The other office is indicated by a city name in lower case except for initials. The one exception is Atlanta where the city name for WEAS should be all capitals. Additional change, to lower case, should be made for Troutdale Airport Station, which should be considered one of the offices in the Portland locality; and also for Boeing Field Airport Station, which is in the Seattle locality. The list of multiple offices, as defined in this circular, is attached, with primary office listed first.

Further instructions on the relationship between multiple offices will be issued separately. The titles authorized in this C.L. are to be considered the ones designated for formal Bureau use. When local considerations make it desirable to use such titles as Chief Forecaster, for example, in informal contacts with local users such as newspapers, radio stations, etc., their use is permitted at the discretion of the Meteorologist in Charge.



F. W. Reichelderfer
Chief of Bureau

Attachment

MULTIPLE OFFICES

Region I

Albany, New York
CITY OFFICE
Airport Station

Columbus, Ohio
CITY OFFICE
Airport Station

Binghamton, New York
AIRPORT STATION
City Office

New York, New York
LA GUARDIA AIRPORT STATION
Idlewild Airport Station

Boston, Mass.
AIRPORT STATION
City Office

Norfolk, Va.
CITY OFFICE
Airport Station

Charleston, S. C.
CITY OFFICE
Airport Station

Philadelphia, Pa.
CITY OFFICE
Airport Station

Charlotte, N. C.
CITY OFFICE
Airport Station

Pittsburgh, Pa.
CITY OFFICE
Airport Station

Cincinnati, Ohio
CITY OFFICE
Covington, Ky. Airport Station

Providence, R. I.
CITY OFFICE
Airport Station

Cleveland, Ohio
AIRPORT STATION
City Office

Raleigh, N. C.
CITY OFFICE
Airport Station

Columbia, S. C.
CITY OFFICE
Airport Station

Richmond, Va.
CITY OFFICE
Airport Station

Region II

Galveston, Texas
CITY OFFICE
Airport Station

Mobile, Ala.
CITY OFFICE
Airport Station

Houston, Texas
CITY OFFICE
Airport Station

Montgomery, Ala.
CITY OFFICE
Airport Station

Jacksonville, Fla.
CITY OFFICE
Airport Station

New Orleans, La.
CITY OFFICE
Airport Station

Key West, Fla.
CITY OFFICE
Airport Station

Oklahoma City, Okla.
CITY OFFICE
Airport Station

Memphis, Tenn.
CITY OFFICE
Airport Station

Port Arthur, Texas
CITY OFFICE
Airport Station

Region III

Chicago, Ill. CITY OFFICE Airport Station	LaCrosse, Wisconsin CITY OFFICE Airport Station
Columbia, Mo. CITY OFFICE Airport Station	Lansing, Mich. CITY OFFICE Airport Station
Davenport, Iowa CITY OFFICE Moline, Ill. Airport Station	Lincoln, Nebr. CITY OFFICE Airport Station
Denver, Colorado AIRPORT STATION City Office	Louisville, Kentucky CITY OFFICE Airport Station
Des Moines, Iowa CITY OFFICE Airport Station	Madison, Wisconsin CITY OFFICE Airport Station
Detroit, Mich. CITY OFFICE Ypsilanti Airport Station	Milwaukee, Wisconsin CITY OFFICE Airport Station
Grand Rapids, Mich. CITY OFFICE Airport Station	Minneapolis, Minn. AIRPORT STATION St. Paul Airport Station
Huron, S. Dak. CITY OFFICE Airport Station	St. Louis, Mo. CITY OFFICE Airport Station
Indianapolis, Ind. CITY OFFICE Airport Station	Springfield, Ill. CITY OFFICE Airport Station
	Topeka, Kansas CITY OFFICE Airport Station

Region IV

Helena, Mont. CITY OFFICE Airport Station	Sacramento, Calif. CITY OFFICE Airport Station
Phoenix, Arizona CITY OFFICE Airport Station	Salt Lake City, Utah CITY OFFICE Airport Station
Portland, Oregon CITY OFFICE Airport Station Troutdale Airport Station	Seattle, Wash. SEATTLE-TACOMA AIRPORT STATION Boeing Field Airport Station

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25, D. C.
July 17, 1951

File No. 051



CIRCULAR LETTER NO. 22-51
(To All First-Order Stations)

Subject: Coordination of Multiple Offices in One Locality

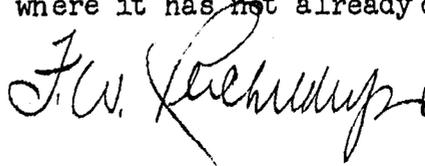
There have been a number of occasions recently when the Central Office has had to stress the principle of unity of all Weather Bureau public service activities in one locality. Program letters to new Officials in Charge (now Meteorologists in Charge, see Circular Letter No. 21-51) and new job descriptions have stressed the coordinating relationships and practices necessary to achieve this unity. This Circular Letter is now issued to state them for all concerned.

1. The basic principle is that there is only one Weather Bureau Office for weather service in the locality and that the city, airport, and FAWS offices, for example, are units of this one office.
2. One designated official, the Meteorologist in Charge, is responsible for full coordination of all units to provide the most effective service with assigned staff.
3. Circular Letter No. 21-51 describes how the primary office and the subordinate offices are listed in the roster of December 31, 1950.
4. The Meteorologist in Charge has authority to interchange personnel between units regularly or in emergencies for more effective utilization of staff and liquidation of leave.
5. The Meteorologist in Charge will be the rating officer for the Chief Airport Meteorologist or other unit heads reporting directly to him, and will be reviewing officer when the unit head is rating officer. He will examine and discuss all ratings with other reviewing or rating officers. This change will be effective for performance ratings prepared hereafter.
6. Official correspondence from all units affecting policy or program will be signed by the Meteorologist in Charge. Routine correspondence, as directed by him, can be signed by the unit heads with copy to the Meteorologist in Charge.
7. All other offices, including the Regional Office and the Central Office, are instructed to direct official correspondence to the Meteorologist in Charge or to send copies to him of any routine correspondence addressed to unit heads. To assist all offices in so directing correspondence, a new address book of Weather Bureau Offices will indicate the primary office and the units responsible to it.

8. Central Office and Regional Office personnel officials are instructed to inform new and transferred employees to report first to the Meteorologist in Charge when entering on duty in any of the units.

Although this Circular Letter stresses the responsibility of the Meteorologist in Charge for coordination of all weather service activities in the locality, it is not intended that for that reason he confine himself to, or overload himself with, the details of administrative work. The organizational and administrative features defined here are intended solely to assist him in the development and maintenance of the technical and public service programs at the most effective level. We believe that this is best accomplished by his direction and participation to the fullest extent possible.

It is realized that the practical development of the coordination desired will vary with the physical relationships and staffs assigned to the various units in a particular locality. The Central Office will be glad to assist in the solution of any problem that arises and will, in fact, be glad to receive any comments on the coordination policy as it affects particular localities. As developments arise and time permits, the Central Office would like to write to all "Multiple Offices" redefining their responsibilities and relationships, where it has not already done so, and these reports will help.



F. W. Reichelderfer
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
July 18, 1951

File No. 780

0-2.13

CIRCULAR LETTER NO. 23-51
(To all First-Order Stations)

rcif

Subject: Form 1001D - Meteorological Index.

The subject form has been designed as the result of an employee's suggestion. This form, which is the same size as Forms 1130A and B, contains columns for entering dates of unusual meteorological occurrences during the year and is for optional use at all first-order stations.

An initial distribution is being made to all Regional Offices. Stations desiring to use this form should request it from the Regional Office, bearing in mind that one sheet will contain entries for one year.



F. W. Reichelderfer,
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25, D. C.
July 26, 1951

File No. 124

AO-1

CIRCULAR LETTER NO. 24-51
(To All First-Order Stations)

Subject: Military Duty, and Procedure for Notification to
Central Office

Reference: (1) Circular Letter No. 73-50 dated October 11, 1950
(2) Circular Letter No. 14-51 dated April 10, 1951

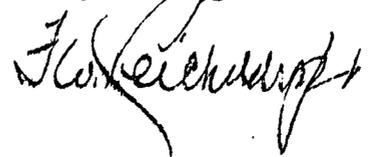
Due to the short periods of time available to make provisions for replacement of personnel recalled to active military duty, some changes in the procedures established by Circular Letter 14-51 are necessary. That Circular Letter is, therefore, superseded by the following information and should be removed from the files and destroyed.

Because of procedures now being used by some units of the Armed Forces in calling men into service, it is necessary to make minor changes in the method of reporting to the Central and Regional Offices. In some cases employees receive orders to report for a five-day period during which it is determined whether or not they are physically and otherwise acceptable for extended active duty. If acceptable, they are given approximately thirty days' notice in which to arrange personal affairs and report for duty. In other cases, the first order is for extended active duty.

Information concerning employees in any of the following categories should be reported to the Central Office by telegram with copy to the Regional Office concerned:

1. Decides to volunteer for active duty.
2. Receives orders to report for a processing period.
3. Receives orders to report for extended active duty.
4. Receives notice, after a processing period, that he will not be called to active duty.
5. Receives any changes in previous orders.

Each report must make clear which of the above situations is involved, the branch of service, the address of the office issuing the orders, the dates and numbers of the orders, and any other pertinent information. Any additional information specifically requested by the Regional Office should also be included.



F. W. Reichelderfer
Chief of Bureau

c.2

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
July 30, 1951

File: 402
400.2

A-3.5

CIRCULAR LETTER No. 25-51
(To All First Order Stations)

Subject: Certification as to Compliance with Ceiling Price
Regulations.

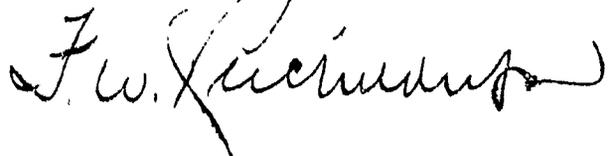
Personal Property Management Regulation No. 17, issued by the General Services Administration March 14, 1951 required that, effective April 15, 1951, there be incorporated a provision reading substantially as follows in all invitations for bids, negotiated contracts and informal quotations for supplies or services subject to price ceilings:

"The contractor warrants that the prices herein are not in excess of applicable ceiling prices established by the Economic Stabilization Agency or other authorized Government agency and in effect upon the date hereof for the supplies or services to be furnished hereunder."

The word "contractor" in the above clause may be changed to "bidder" where appropriate.

Supplement No. 1 to Regulation 17, issued July 9, 1951 provides for the exemption of transactions amounting to \$500 or less in the use of the uniform price ceiling certification.

Circular Letter No. 16-51 dated April 13, 1951 (A-3.5) is hereby cancelled.



F. W. Reichelderfer
Chief of Bureau

1951

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
August 6, 1951

File: 055

A-3

CIRCULAR LETTER NO. 26-51
(To all First-Order Stations)

Subject: Security Regulations Handbook.

The Department of Commerce has issued a new handbook entitled "Security Regulations." Each employee in the Central Office and Weather Bureau field offices who has been cleared by the Department of Commerce to have access to classified information and material, is to be provided with a personal copy of this handbook. Accordingly, a supply of handbooks is being furnished to each Central Office Division and Weather Bureau field office concerned for distribution to cleared personnel. A copy should also be on file at all first-order stations.

The new handbook has the full force and effect of an order issued in the Department of Commerce Manual of Orders and supersedes Administrative Order 207-2 dated December 14, 1948, Amendment I thereto dated June 27, 1949, Amendment 2 thereto dated March 30, 1950, and Administrative Circulars No. 75 dated June 27, 1949, and No. 91 dated May 24, 1950. This handbook has been issued separately because it requires a distribution differing from that usually followed for Administrative Orders and Circulars, as indicated above.

The attention of Chiefs of Divisions, Regional Directors and Officials in Charge of field offices is invited to Section 3, paragraph 3.01 of the handbook which requires that each cleared employee, after reading the pertinent extracts of the Espionage Act of 1917, as amended, shall read and execute the secrecy agreement (Form CD-72), in duplicate, in the presence of a supervisory official. At field offices, employees may sign Form CD in the presence of officials in charge; officials in charge in the presence of the next ranking employee (preferably one who is cleared) at his station or the Regional or Assistant Regional Director, while Regional Directors should execute Form CD-72 in the presence of the Assistant Regional Director. All forms, in duplicate, will be forwarded to the Central Office, using double envelopes with the inner cover marked Attention: Security Officer. A supply of Forms CD-72 will be supplied as soon as received from the Department.

Attention is also invited to Section 9, paragraph (6) which requires that a receipt (Form CD-76) shall be executed covering the transfers of "Top Secret" and "Secret" material.

Central Office Divisions and field offices that do not have any employees cleared to handle classified information and material should become conversant with the instructions contained in the new handbook "Security Regulations", and keep a copy on file for reference. The information contained in Circular Letter No. 57-49, dated June 13, 1949, Subject: Security protection for classified information, is still applicable, except that "Secret" material must be protected by three tumbler combination safe or three tumbler dial padlock when lockbars are used.

Administrative Chapter G-20, "Security Program" in the Weather Bureau Manual will be revised in due course to conform with some changes in the new "Security Regulations."

A handwritten signature in cursive script, reading "F. W. Reichelderfer". The signature is written in dark ink and is positioned to the right of the typed name.

F. W. Reichelderfer,
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
August 17, 1951

File: 403

A-3.5

CIRCULAR LETTER No. 27-51
(To All First Order Stations)

AUG 21 1951

Subject: Contract Provisions as to Compliance with Ceiling
Price Regulations

Personal Property Management Regulation 17, revised, issued by the General Services Administration July 27, 1951, prescribes a uniform contract provision for use by executive agencies in connection with purchase transactions involving commodities or services to which ceiling prices apply.

With the exception of transactions involving amounts of \$500 or less, there shall be incorporated a provision reading substantially as follows in all invitations for bids and in all negotiated contracts for supplies or services to which price ceilings apply:

"Ceiling Prices. Contractor agrees that the prices invoiced hereunder will not exceed the lower of (i) the contract prices or (ii) any applicable ceiling prices established by the Office of Price Stabilization or other authorized Government agency."

The word "Contractor" in the above clause may be changed to "bidder" where appropriate.

Each purchase order or other form of commitment issued (except those issued in connection with a contract known to include the foregoing contract provision) shall be made subject to such contract provision.

Circular Letter No. 25-51 dated July 30, 1951 (A-3.5), containing similar Ceiling Price instructions is hereby cancelled.



F. W. Reichelderfer
Chief of Bureau

C-2

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
August 22, 1951

File No. 721

O-2.13

CIRCULAR LETTER NO. 28-51
(To all First-Order Stations)

Subject: Local Climatological Summaries.

Reference: Paragraph C-0750 of Weather Bureau Manual,
Volume III, Service Operations: Instructions
for Preparation of Data for Local Climatological
Summaries at Originating Stations.

The referenced instructions, amended as shown below, will govern the preparation of copy and publication of the 1951 and succeeding Local Climatological Summaries.

Paragraph i, on page 16 - Substitute the following for this paragraph:

"Prevailing Wind Direction in the table 'Meteorological Data for Current Year' should be published only at stations where there is a 24-hour observational program and where the direction is recorded to 16 points. Prevailing Wind Direction in the table 'Means and Extremes for Period of Record' should be obtained as follows -

- (1) Until 5 or more years of record based on 16 compass points are available, use only the earlier record based on eight points. Attach a reference note - 'Wind direction to 8 points only'.
- (2) After five or more years of record based on 16 points are available, use that record and disregard the earlier 8 point record.

"Monthly Average Hourly Wind Speed in the table 'Meteorological Data for the Current Year' will be obtained as follows -

- (1) Stations taking 24 record observations daily will use the average speed as given on the tabulator Form 5108B (received from WRPC), or Table B of the printed 1001C Supplement.
- (2) Stations not taking 24 record observations daily, but which have an autographic record of wind movement, will obtain the average speed from the footing of Column 11 of Form 1001C.



"Annual values of wind speed on both tables (current year and period of record) will be obtained by dividing the sum of the monthly values by 12."

Paragraph 1, on pages 17-18 - The last sentence should be changed to the following:

"Fastest mile data in the Means and Extremes table should not include periods when the station was not equipped with a triple or single register."

(NOTE: A number of stations published 5-minute maximum speed in the 1950 Summaries instead of the fastest mile. All stations should be sure to publish the fastest mile (extreme speed), rather than the 5-minute maximum speed. A listing of the "fastest mile" by months for the period 1912-1950 is under way at the Central Office for the 154 stations listed on the attachment to this Circular Letter. When this listing is completed (about September 30, 1951) the highest extremes for each month for the above-mentioned period will be furnished to the selected stations. Stations not included in this listing should endeavor to obtain these data for as long a period as is possible from records readily available on the station.)

Paragraph m.1. Meteorological Data for the Current Year - Add after Monthly Temperature:

"(Average for the year should be obtained by dividing the sum of the average maximum and average minimum by 2.)"

Also add after Percent of possible sunshine:

"(The average for the year should be obtained by dividing the total minutes during the year by the possible minutes.)"

Paragraph m.2. Means and Extremes for Period of Record - Add after Monthly Temperature:

"(Mean for the year should be obtained by dividing the sum of the mean maximum and mean minimum by 2.)"

Also add after Percentage of sunshine:

"(Mean for the year should be obtained by dividing the sum of the yearly totals for the period by the sum of the possible amounts for the period. The sum of the yearly possible amounts may be obtained by multiplying the yearly total obtained from the latest sunshine cards by the number of years under consideration.)"

In the second to last line of this paragraph on page 19 change "Enter extremes and year or direction for" to read "Enter extremes and month and year or direction for".

Paragraph n, page 20 - After History of station add: "(text and table of Station Location)".

Paragraph o, page 20 - Add the following:

"Changes in location from which data are obtained in the 4 tables of Average Temperature, Total Precipitation, Monthly and Seasonal Degree Days and Monthly and Seasonal Snowfall will be shown as follows:

- (1) If the change occurred at the end of a year (or of a season for snowfall and degree days) draw a horizontal line under all 13 entries for the year or season.
- (2) If the change occurred during the year (or season) draw a horizontal line under the months preceding the change and a horizontal line over the month of the change and the succeeding months in that year or season.
- (3) Show the origin of the data by brief notes at the foot of the tables. Examples are 'Data from cooperative station through August 25, 1919; from 10th and Walnut Street location through December 1929 and from the Airport since then'."

Paragraphs p, q, and s, pages 20 and 21 - Add to each paragraph the following:

"Standard or provisional normals, when established, should be entered as the last line of this table. Enter 'Std. Nor.' or 'Prov. Nor.', as the case may be, in the column headed 'Year' or 'Season', followed by the monthly and annual normals."

Paragraph t, page 21 - Change this paragraph to read:

"The text of the Station History should include a description of the surrounding terrain with particular reference to any unfavorable instrumental exposure. It should be typewritten, double spaced, on one side of 8 x 10 1/2 sheets. This text should be published each year but need not be rewritten except where occasion demands."

(NOTE: Station histories carried in the 1950 Summary should be re-written and condensed, since much of the information will be carried in the Station Location table.)

The Station Location table will be prepared at the WRPC from WB Form 500-1 furnished by each station. Detailed instructions for the preparation of

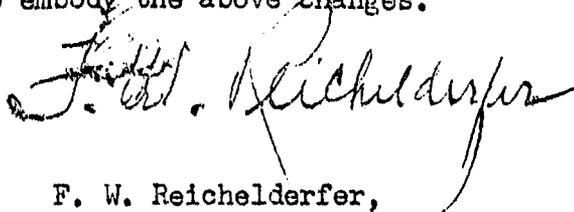
Form 500-1 are carried on the back of the form. In the Station Location table all entries of elevation should be to whole feet; coordinates should be entered to degrees, minutes and tenths of a minute if they are so entered on Form 500-1.

Paragraph u. Reference notes - Add as reference notes Nos. 3a and 3b:

"Std. Nor. = Standard normal, based on 30 years record, 1921 through 1950.

"Prov. Nor. = Provisional normal, based on between 10 and 30 years record ending with 1950."

Paragraph C-0750, Weather Bureau Manual, Volume III, Service Operations, will be revised in the near future to embody the above changes.



F. W. Reichelderfer,
Chief of Bureau

Attachment

ATTACHMENT TO CIRCULAR LETTER NO.

LIST OF STATIONS FOR WHICH MONTHLY EXTREME VELOCITIES
FOR THE PERIOD 1912-1950 (IF AVAILABLE) WILL BE PRE-
PARED AT THE CENTRAL OFFICE.

Abilene, Texas	Dodge City, Kansas
Albany, New York	Devils Lake, North Dakota
Albuquerque, New Mexico	Dubuque, Iowa
Amarillo, Texas	Duluth, Minnesota
Apalachicola, Florida	Eastport, Maine
Asheville, North Carolina	El Paso, Texas
Atlanta, Georgia	Elkins, West Virginia
Atlantic City, New Jersey	Eureka, California
Augusta, Georgia	Evansville, Indiana
Austin, Texas	Fort Wayne, Indiana
Baker, Oregon	Fort Worth, Texas
Baltimore, Maryland	Fresno, California
Billings, Montana	Galveston, Texas
Birmingham, Alabama	Grand Junction, Colorado
Bismarck, North Dakota	Grand Rapids, Michigan
Block Island, Rhode Island	Green Bay, Wisconsin
Boise, Idaho	Greenville, South Carolina
Boston, Massachusetts	Harrisburg, Pennsylvania
Broken Arrow, Oklahoma	Hatteras, North Carolina
Brownsville, Texas	Havre, Montana
Buffalo, New York	Helena, Montana
Burlington, Vermont	Houston, Texas
Cairo, Illinois	Indianapolis, Indiana
Canton, New York	Jacksonville, Florida
Cape Henry, Virginia	Kalispell, Montana
Charles City, Iowa	Kansas City, Missouri
Charleston, South Carolina	Key West, Florida
Charlotte, North Carolina	Knoxville, Tennessee
Cheyenne, Wyoming	Lander, Wyoming
Chicago, Illinois	Lincoln, Nebraska
Cincinnati, Ohio	Little Rock, Arkansas
Cleveland, Ohio	Los Angeles, California
Columbia, Missouri	Louisville, Kentucky
Columbia, South Carolina	Lynchburg, Virginia
Columbus, Ohio	Macon, Georgia
Concord, New Hampshire	Madison, Wisconsin
Concordia, Kansas	Marquette, Michigan
Corpus Christi, Texas	Memphis, Tennessee
Dallas, Texas	Meridian, Mississippi
Davenport, Iowa (Moline, Illinois)	Miami, Florida
Dayton, Ohio	Milwaukee, Wisconsin
Del Rio, Texas	Minneapolis, Minnesota
Denver, Colorado	Miles City, Montana
Des Moines, Iowa	Mobile, Alabama
Detroit, Michigan	Modena, Utah

Montgomery, Alabama
Missoula, Montana
Moorhead, Minnesota (Fargo, North Dakota)
Nashville, Tennessee
New Haven, Connecticut
New Orleans, Louisiana
New York, New York
North Head, Washington
North Platte, Nebraska
Oklahoma City, Oklahoma
Omaha, Nebraska
Peoria, Illinois
Philadelphia, Pennsylvania
Phoenix, Arizona
Pittsburgh, Pennsylvania
Pierre, South Dakota
Pocatello, Idaho
Portland, Maine
Portland, Oregon
Providence, Rhode Island
Pueblo, Colorado
Raleigh, North Carolina
Rapid City, South Dakota
Reading, Pennsylvania
Red Bluff, California
Reno, Nevada
Richmond, Virginia
Rochester, New York
Roswell, New Mexico
Sacramento, California
Salt Lake City, Utah
San Antonio, Texas

San Diego, California
San Francisco, California
San Jose, California
Sault Ste. Marie, Michigan
Savannah, Georgia
Seattle, Washington
Santa Fe, New Mexico
Sheridan, Wyoming
Shreveport, Louisiana
Sioux City, Iowa
Spokane, Washington
Springfield, Illinois
St. Joseph, Missouri
St. Louis, Missouri
St. Paul, Minnesota
Syracuse, New York
Tacoma, Washington
Tampa, Florida
Tatoosh Island, Washington
Toledo, Ohio
Tonopah, Nevada
Topeka, Kansas
Trenton, New Jersey
Tulsa, Oklahoma
Yuma, Arizona
Valentine, Nebraska
Vicksburg, Mississippi
Washington, D. C.
Wichita, Kansas
Williston, North Dakota
Wilmington, North Carolina
Winnemucca, Nevada

Huron, South Dakota (from 1932-1950)

62

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
September 4, 1951



File: 611

0-5.31

CIRCULAR LETTER No. 29-51
(To All First Order Stations)

Subject: Form of Pilot Weather Reports for Transmission
in AIREPS Summary and Entry on Form WBAN-10A

An examination of the pilot reports transmitted on Service A in the AIREPS summary reveals considerable variation in the form of these reports. This variation is probably due in part to the differences between the AIREPS example shown in Circular Letter 142-49 and those shown in Paragraphs 10120-10127 of Circular N.

Although considerable latitude in form and content is necessary due to the wide variety of elements described in pilot reports, paragraph 10120 and subsequent paragraphs of Circular N illustrate the general form which will now apply for the preparation of the AIREPS Summary as well as for entry of pilot reports on Form WBAN-10A. Please note the use of symbols rather than abbreviations to indicate sky conditions, and the order of the individual elements in the report. This Circular Letter supersedes the previous instructions on this matter, as exemplified by the sample AIREPS summary in Circular Letter 142-49. The other instructions in Circular Letter 142-49, regarding distribution and handling of PIREPS, are not affected by this Circular Letter.

A handwritten signature in cursive script that reads "F. W. Reichelderfer".

F. W. Reichelderfer
Chief of Bureau

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

File: No. 050

CWB

September 13, 1951

CIRCULAR LETTER NO. 30-51 *VCif*
(To All First Order Stations)

Subject: Reorganization of the Division of Climatological
and Hydrologic Services

Effective October 1, 1951, the Division of Climatological and Hydrologic Services will be reorganized into two new divisions, to be known as the Climatological Services Division and the Hydrologic Services Division.

As director of the work of reorganization and development of Climatological Services, Mr. W. F. McDonald has been named Chief of the new Division and he will serve in this capacity in addition to his regular position as Assistant Chief of Bureau for Administration. Mr. McDonald has had extensive experience in climatological and agricultural meteorology; also in marine climatology as head of the Bureau's Marine Division for several years.

Mr. William E. Hiatt has been selected as Chief of the Hydrologic Services Division. For the past two years Mr. Hiatt has been assigned to the Central Office, first as Eastern Area Engineer and later as Assistant Chief for Hydrology of the C&HS Division.

Mr. Ray K. Linsley, formerly Assistant Chief for Hydrology of the C&HS Division, has been retained as a consultant on hydrologic service planning and development. Mr. Linsley is professor of Hydraulic Engineering at Leland Stanford University.

Organizationally, the two new divisions will continue under the Assistant Chief for Operations, who will have general administration of the Climatological and Hydrologic Services Divisions along with other technical service divisions.

F. W. Reichelderfer
F. W. Reichelderfer
Chief of Bureau

Library

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

File: 030
014
210

AO-1

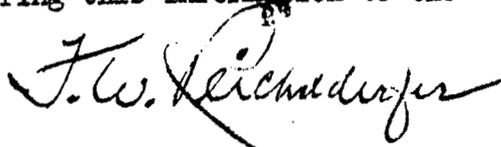
September 11, 1951

CIRCULAR LETTER NO. 31-51
(To All Weather Bureau Offices)

Subject: Announcements Regarding Legislative and Budget
Proposals

In memorandum from Mr. Clarence H. Osthagen, Assistant Secretary of Commerce (Adm), for the information of all members of the Department, our attention has been called to the policy of the Department concerning release of information on budget and legislative matters as set forth in administrative orders. These orders, along with other Departmental issuances, require prior clearance at the Departmental level of all news releases concerning dealings with Congress or matters before Congress, and matters relating to budget or finance.

Station officials are requested to bring this information to the attention of all station personnel.



F. W. Reichelderfer
Chief of Bureau



UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25

September 17, 1951

File No. 055.1

A-3

CIRCULAR LETTER NO. 32-51
(To all First Order Stations)

Subject: Security Clearances.

Administrative Order 98 (Amended), dated August 23, 1951, provides that hereafter the Security Control Officer of the Department of Commerce will receive and process all requests for security clearance of employees, and issue certificates of security clearance to primary units upon request after determination of employees' eligibility for such clearances within the security regulations of the Department.

The Security Control Officer has requested that a "Rush" request be submitted only in case of a real emergency, that is amply justified, in which case an interim clearance will be issued pending adequate investigation on which to issue a formal clearance certificate.

All clearance requests must hereafter be accompanied by the employee's personnel folder, and be fully justified to show actual need for the clearance to handle classified material. A sample justification that meets the needs of the Security Control Officer is hereunder:

"These employees will be assigned to a defense project which is being carried on by the Climatological and Hydrologic Division of the Weather Bureau. This assignment will require the employees to handle confidential and secret documents in the conduct of climatological studies which makes the clearance request necessary."

In the field, clearance requests that are not initiated at Regional Offices should be routed through those offices when it is known that the personnel folders are on file there for the employees for whom the requests are submitted. Others may be sent direct to the Central Office when the time element is a factor.

F. W. Reichelderfer
F. W. Reichelderfer,
Chief of Bureau

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UNITED STATES DEPARTMENT OF COMMERCE

U.S. WEATHER BUREAU

Washington

September 20, 1951

File No. 653.1

0-5.32

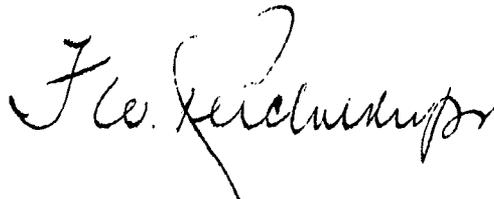
CIRCULAR LETTER NO. 33-51
(To All First Order Stations)

Subject: Specialized Forecasts for Agriculture - Sample Copies.

Reference: Circular Letter No. 8-48

The procedures for furnishing sample copies of agricultural forecasts are not uniform and this circular letter is issued to clarify the instructions. A few sample copies from all offices and for all seasons of the year are very useful in the Central Office but it is desired to reduce the amount of routine work at the local offices, in connection with furnishing samples, as much as possible. It is requested that all offices issuing specialized agricultural forecasts submit at least one annual sample to the Central Office (SR&F Division). If only one sample is submitted it should be selected as early in the agricultural season as possible and where there are seasonal changes in the program which would make additional samples helpful, they too are requested. If each sample submitted will include the appropriate season of coverage and normal distribution of the material, its usefulness will be increased considerably.

Because the submission of such samples will not be routine and uniform it will be difficult for the Central Office to make a check on omissions. For that reason it is suggested that each office establish its own check date and furnish the material on its own initiative. At the same time, copies should go to the appropriate district forecast office and also to the state service center if there is one.



F. W. Reichelderfer
Chief of Bureau



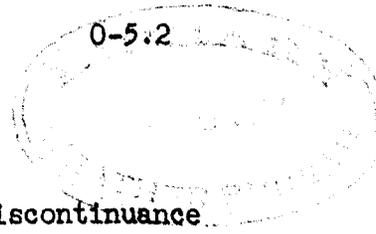
5-6

Library
UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington

October 2, 1951

File No. 630

CIRCULAR LETTER NO. 35-51
(To All First Order Stations)



Subject: Increase in Western Union Rates and Discontinuance
of Serial Classification

Reference: Circular Letter No. 2-51

The Federal Communications Commission has authorized Western Union to revise its rates for interstate message service and has ordered discontinuance of the serial message classification in interstate service. The rate revisions and discontinuance of the serial classification became effective September 1, 1951. The increase in minimum charges under the new rate averages about 44 per cent for the first three zones but is proportionately less for longer haul messages. On the other hand minimum wordages have been increased and this will offset to some extent the increase in minimum charges. Information regarding the new rates are given in a folder prepared by Western Union for general distribution. Copies may be obtained from local Western Union offices. The new rates and discontinuance of the serial classification will not become effective in intrastate service until approved by the respective States.

As a large portion of the Weather Bureau's message business is short-haul traffic and consists of relatively brief messages, it is obvious that these revisions will result in a substantial increase in costs for telegraph service. Discontinuance of the serial rate will also add considerably to telegraph costs. It is therefore requested that Weather Bureau officials so far as practicable (1) continue to use PBS instead of commercial telegraph for administrative and informational dispatches, (2) use or authorize use of telephone (or TWX if available) in lieu of telegraph when telephone or TWX is cheaper, (3) make use of the most economical rate (full rate, night letters, or day letters) that will meet delivery requirements, and (4) keep communications costs at a minimum by use of mail or airmail when delivery by that means can be effected in time for required action. Additionally it is requested that wire dispatches be as brief as possible, consistent with clarity and completeness.

While the need for economy is urgent, it is not intended that changes be made if detriment to essential service or administrative difficulties would result. The choice of channels to be used is therefore left to the judgment of supervising officials. The Central Office will appreciate reports of action taken to reduce message costs as outlined above or by other means. Suggestions for more economical methods of handling Weather Bureau message traffic will be welcomed.

F. W. Reichelderfer
Acty for F. W. Reichelderfer
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25, D. C.
October 3, 1951

File: 780
100

A-4

CIRCULAR LETTER NO. 36 1951
(To All First Order Stations)

Subject: Types of Actions for Which Fanfold SF-50 Will Be
Discontinued

Occasionally legislation, Civil Service regulations, or administrative action may be of such nature that some change of employee records is necessary even though the status and grade of the employee remain the same. Usually these changes have been formalized by processing a new fanfold action on SF-50 although such action is not actually required.

For example, at one time fanfold actions were processed for every employee on the rolls in the event of enactment of federal pay legislation changing basic salaries of federal employees. Now a copy of the new pay schedule is placed in the employee's folder, his new pay rate underlined and the employee himself is given a payroll change slip prepared by the Fiscal Section. No SF-50 is written.

The purpose of this Circular Letter is to point out other types of cases for which SF-50 will be eliminated and the change recorded on existing records.

1. Change in Title only.

a. The new meteorologist specifications promulgated by the Civil Service Commission break the meteorologist series into options as: Meteorologist (Forecasting), Meteorologist (Hydrology), Meteorologist (Research and Development), etc. Fanfold actions will not be written merely for the purpose of effectuating the new title. The new titles, however, will be incorporated as new fanfold actions become necessary for other purposes.

b. The Bureau has by administrative action through Circular Letter No. 21-51, dated July 17, 1951, changed the working titles of Bureau employees in charge of field stations. "Meteorologist in Charge" has been substituted for "Official in Charge" except where the station is under the supervision of another station in the same city or locality. An airport supervisor now working under the direction of a city office, "Meteorologist in Charge," becomes "Chief Airport Meteorologist." If the city office is subordinate to the airport station the airport supervisor is designated "Meteorologist in Charge" and the city office supervisor becomes "Meteorologist," "Climatologist," etc., as the case may be. In some cities there are two offices where neither is subordinate to the

other; for example, La Guardia and the New York City Office. Both supervisors in this instance are designated "Meteorologist in Charge." Other examples of independent offices are river forecast centers where the supervisors are designated "Hydrologist in Charge" and WRPC installations where the supervisor is designated "Meteorologist in Charge." When the station supervisor is a Meteorological Aid, his designation becomes "Observer in Charge." Many of these changes are illustrated in Circular Letter No. 21, 1951, and the address section of the Weather Bureau Manual commencing with paragraph I-F-1014. The new working titles will be used in processing future fanfold actions. In the meantime, they should be posted on Service Record Card SF-7 and the last SF-50 in the employee's personnel file.

c. By administrative action the Observer-Briefer designation has been changed to "General Service Meteorologist." Fanfold actions will not be written for the specific purpose of converting from the old to the new organizational title. The new title should be posted on Service Record Card SF-7 and on the last SF-50 action in the employee's personnel file.

2. Redescription of Duties.

Previously, fanfold actions were written when a position was redescribed to call the employee's attention to the revised job description. This is not required and will be discontinued. When copies of redescription of duties are received in the Regional Office, they should be checked to see if there has been a change in the position number. If there has been a change, the new number should be posted on the Service Record Card and on the last SF-50 in the employee's personnel file.

N. A. McDonald
Act'g for F. W. Reichelderfer
Chief of Bureau

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

File: 131

October 3, 1951

A-4.5

CIRCULAR LETTER NO. 37-51
(To All First-Order Stations)

Subject: Inauguration of Training Course for Weather Briefers

The Weather Bureau is inaugurating a training course to be taken by all GS-7 General Service Meteorologists (and all GS-7 Observer-Briefers whose positions have not yet been converted to GS-7 General Service Meteorologists). Completed lesson assignments will be returned and a record of the progress made by these GS-7 employees will be maintained at the Training Office, Washington National Airport. All other GS-7 Meteorologists and all GS-9 Meteorologists engaged in weather briefing or forecasting will be required to read the course material, but will not be required to participate fully.

Any employee not required to participate fully may take the course on an optional basis. Employees below the grade of GS-7 doing briefing work are also urged to take the course. The record of progress of all optional participants will be kept at the local station, and will be sent to the regional office at the completion of the course.

Each official in charge should prepare a list of those GS-7 General Service Meteorologists at his station who will take the course, and a list of those who will participate on an optional basis. These lists should be forwarded within one week of receipt of this C.L. to the Training Office, Weather Bureau Airport Station, Washington National Airport, Washington, D. C. If none of the personnel at a station will take the course, this fact should be so stated. All first-order stations will be sent a copy of the course for informational purposes and each participant will receive an individual copy.

The official in charge will be the key man in this program as he is responsible for briefer training at the station. The course will be designed so that personnel at each station will be given opportunity to develop material concerning the briefing problems of their own station.

Some of the material prepared by the stations during this course will be incorporated into a station briefing manual, portions of which will be different for different stations. This manual should serve as a guide for station briefing activities and as a training aid for new briefers.

The course will cover all phases of pilot briefing and will further the practical application of meteorological principles in briefing. Subject material to be covered by the course will include:

1. Station Locations and Topography.
2. Significant weather conditions affecting routes and terminals for which briefing is provided, and meteorological explanations of these weather conditions.
3. District and aviation forecasts, synoptic maps, upper air reports, sequence and pilot reports, Forecast Center and FAWS contacts, and local briefing aids. The use and integration of this material will be stressed.
4. Briefing techniques. Meteorological terminology and recognition of individual differences in pilots and aircraft. Desirable briefing presentations and attitudes.

It is planned to issue the lessons at the rate of one each month for about fifteen months. Those on extended leave will be able to make up the missed lessons on their return.



F. W. Reichelderfer
Chief of Bureau

Library c.1

UNITED STATES DEPARTMENT OF COMMERCE
U.S. WEATHER BUREAU
Washington, 25

October 30, 1951

File: 041

AO-1

CIRCULAR LETTER NO. 38-51
(To All Weather Bureau Field Stations)

Subject: Joint Civil-Military Use of Airfields

The current expansion of the military services is causing the reactivation of military activity at a considerable number of municipal airfields. In many cases the field is being shared by civil and military interests on a "joint use basis", and at a few locations civilian activities have been moved to a different field.

The Central Office is working with the military weather services on each case to determine the most efficient means of meeting the total requirement for meteorological service. Although a large amount of information concerning such activities has been forwarded to the Central Office by field stations, we occasionally encounter cases about which we have been uninformed.

Because we are particularly anxious to conserve meteorological manpower and facilities, we are carefully investigating each case where some integration of the activities of the Weather Bureau and the specialized meteorological service of the Department of Defense may be possible. For example, the Weather Bureau observation is usually accepted as the official observation for the field and arrangements are made for communicating it to the military stations. This allows the military service to reduce the number of personnel assigned to a particular location and free the individuals for assignment elsewhere. Also, in some cases we are able to be of significant assistance to the military by briefing military pilots or contract carriers flying on military business.

In order that we may be up-to-date in our planning, it is requested that all offices keep the Central Office informed of the status of joint use operations in your local areas. Please let us know if services are being performed for the military, such as those described above and also include information about the distance between the two offices in case further coordination or integration should seem desirable. At places where there is no military activity at present, please furnish any information obtained concerning contemplated military installations so that we may enter negotiations here as early as possible.



F. W. Reichelderfer
Chief of Bureau

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
November 19, 1951

File No: 055

A-3

CIRCULAR LETTER NO. 39-51
(To All First-Order Stations)

Subject: Security Regulations.

Reference: Weather Bureau Manual, Chapter G-20.

Form CD-79 (Request for Security Clearance) has been revised and a new Form CD-79a (Statement of Personal History, Personnel Security) has been prepared by the Security Control Office, Department of Commerce.

Effective immediately all requests for security clearance are to be submitted to the Security Control Officer in triplicate on Form CD-79 (Revised) through the Central Office Personnel and Security Officers. This form is to be accompanied by one copy of Form CD-79a which has been completely executed by the person for whom security clearance is requested.

On all requests for clearances to have access to information and material classified as Confidential and Secret the Security Officer is required to complete the certificate on the back of Form CD-79. In all cases of requests for clearance of persons in the field whose personnel folders are filed at Regional Offices, the Regional Director or Acting Regional Director is hereby designated a field Security Officer for the purpose of executing this certificate, and for responsible maintenance and operation within his region of the Department Security Regulations dated May 1951.

In the case of request for access to Top Secret material the certificate on the back of Form CD-79 is not applicable. Instead, the personnel folder must be submitted with the request for clearance, together with a copy of completed Form CD-79a. The personnel folder must otherwise be submitted only with the request for clearance for Confidential and Secret when it contains "derogatory information."

All signatures on clearance forms must be personally affixed. Facsimile signatures are not acceptable.

A sample copy of Form CD-79 is attached hereto. The available supply of Forms CD-79a is so limited that for the present they will be supplied to the field only when need for them arises. Necessarily this will delay obtaining clearances somewhat, so applications in emergency cases should be made by air mail or telegraph.

Under date of September 24, 1951, the President issued Executive Order No. 10,290, "Prescribing Regulations Establishing Minimum Standards

for the Classification, Transmission and Handling by Departments and Agencies of the Executive Branch of Official Information which Requires Safeguarding in the Interest of the Security of the United States."

This Executive Order which was published in the Federal Register of Thursday, September 27, 1951, contains regulations that do not differ materially from those contained in the Department of Commerce Security Regulation Handbook prepared by the Office of Security Control, May 1951, copy of which has been furnished to each division and section of the Central Office and each station, and also to every person who has been cleared to handle classified material. A requirement that does not appear in the Department Security Regulations is that hereafter all correspondence, documents, material, publications or other information containing the classification "Top Secret", "Secret", "Confidential", or "Restricted", shall have the words "Security Information" stamped or typed immediately under the classification.

The President, in a memorandum explaining the purpose of the regulations, says that he wants it clearly understood in all agencies, defense and non-defense, that security regulations are to be used exclusively to safeguard the security of the Nation and are not to be used, under any circumstances, for any other purpose.



F. W. Reichelderfer,
Chief of Bureau

Attachment

Library

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
November 19, 1951

File: 610.3
652.1

0-5.31

CIRCULAR LETTER NO. 40-51
(To All First Order Stations)

Subject: Use of Radar Weather Reports in Flight Assistance Service

Reference: Our Memorandum (0-5.31) dated September 14, 1950. Chapter A-15, Addendum to Circular N, 6th Edition, "Radar Meteorological Observations"

In the reference memorandum stations were encouraged to make greater use of available radar weather observations, and suggestions were offered on how a suitable radar weather observation plotting board could be constructed locally. The increasing use of radar weather observations in aviation now makes it desirable that the instructions described in the following numbered paragraphs be placed in effect. These instructions apply to all radar equipped Weather Bureau airport stations in the continental United States as well as those domestic Weather Bureau airport stations located within 200 statute miles of radar weather observing points from which reports are scheduled.¹ These new procedures are aimed primarily at increasing the effectiveness of the in-flight weather service. They have been coordinated with the Civil Aeronautics Administration and that Agency is issuing appropriate instructions to its communications stations. The tentative effective date of these new procedures is December 1, 1951. However, notification of the actual effective date will be made by GENOT.

1. Weather Bureau airport stations equipped with radar should furnish to the local² CAA communications station (if any) a copy of all radar weather observations made and prepared for teletypewriter transmission. CAA instructions provide that the station will broadcast the reports in the next succeeding 15 or 45 minutes past the hour scheduled broadcast except that "Special" radar observations (defined as "additional" reports in Chapter A-15, Circular N) will

¹ A list of the Air Weather Service stations that append radar weather observations in numeral code to their aviation weather observations transmitted on Service A is attached. (Refer to AWS Manual 105-28 "RAREPS" sent with our Memo 0-5.31, dated March 29, 1951.) Weather Bureau radar reporting stations and circuits of transmission are listed in the Service A Operations Manual.

² The term "local" as used in this instruction is intended to mean a CAA communications station located within the same general metropolitan area as the Weather Bureau station, and with which the Weather Bureau station has communications adequate for this purpose.

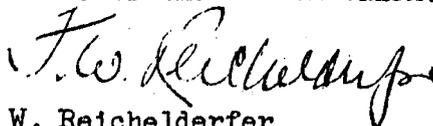
be broadcast as soon as possible after receipt. When, in the opinion of the radar observer, a scheduled radar observation is of sufficient importance to warrant immediate broadcast to airmen in the area, this fact should be made known to the CAA flight assistance personnel by labelling the report "Suggest immediate broadcast".

2. Non-radar equipped Weather Bureau airport stations located within 200 statute miles of radar weather observing stations from which reports are available should plot such reports as soon as possible after receipt. Those portions of the radar observation plot lying within 75 miles of the using station and which are of significance to aircraft operations, should be written as a radar advisory (RARAD) and immediately furnished to the local CAA communications station. The CAA station will use the RARAD as necessary to the rendering of flight assistance service in accordance with the instructions of that Agency. (Personnel responsible for preparing RARADS should become familiar with the limitations of radar weather observing techniques as described in Chapter A-15 of Circular N in order that they may effectively evaluate the reports.)

3. Radar weather reports furnished for use by CAA communications stations should be written in the same form as the radar observations prepared for teletypewriter transmission. In radar advisories the contraction "RARAD" should be substituted for the communications designator "SD". The times of observation stated in RARADS will be the same as those of the original observations and will be stated in Local Standard Time. When a RARAD is developed from more than one radar report, the several reports should be listed separately with an observation time ascribed to each. Radar observations more than one hour old should not be included in RARADS. In event a RARAD is compiled from the radar observations from more than one station and there is a conflict in the plot of the reports, the RARAD should be compiled on the basis of the most recent observation. Radar weather observations pertaining to hurricanes (identified by the phrase "SPRL BND") will not be included in RARADS.

4. The decision as to whether to suggest that a particular radar weather observation be given immediate radio dissemination and whether to issue a RARAD must of necessity rest with the employee on duty. The detection of rapidly increasing thunderstorm activity, active fronts or squall lines and similar conditions may be considered as requiring the issuance of a RARAD or requesting the CAA communications station to give the local radar observation immediate radio dissemination. On the other hand, the detection of isolated and scattered precipitation areas would ordinarily not be considered of sufficient importance to warrant such action.

While this instruction applies only to stations within the continental United States, we suggest that meteorologists in charge in Alaska and Hawaii determine if these procedures can be made applicable locally, and if so, to inform the Central Office of the action taken.



F. W. Reichelderfer
Chief of Bureau

Attachment

AIR WEATHER SERVICE RADAR REPORTS ON SERVICE "A"
(As of Nov. 1, 1951)

ADW	Andrews AFB, Md.	MCC	McClellan AFB, Calif.
BAD	Barksdale AFB, La.	WRI	McGuire AFB, N.J.
BSM	Bergstrom AFB, Texas	HEM	Mitchell AFB, N.Y.
BIF	Biggs AFB, Texas	MDT	Olmstead AFB, Pa.
BOF	Bolling AFB, D.C.	COF	Patrick AB, Fla.
BFM	Brookley AFB, Ala.	PNX	Perrin AFB, Texas
BRX	Brooks AFB, Texas	FTB	Pope AFB, N.C.
FWH	Carswell AFB, Texas	FSI	Post AFB, Okla.
RAN	Chanute AFB, Ill.	RND	Randolph AFB, Texas
WAO	Connally AFB, Texas	RCA	Rapid City AFB, So. Dak.
SEM	Craig AFB, Ala.	REE	Reese AFB, Texas
TUS	Davis-Monthan AFB, Ariz.	WRB	Robbins AFB, Ga.
MGE	Dobbins AFB, Ga.	BLV	Scott AFB, Ill.
VPS	Eglin AFB, Fla.	MTC	Selfridge AFB, Mich
EFD	Ellington AFB, Texas	SYM	Sewart AFB, Tenn.
SKA	Fairchild AFB, Wash.	SSC	Shaw AFB, S.C.
FTK	Godman AFB, Ky.	FLV	Sherman AFB, Kans.
GOF	Goodfellow AFB, Texas	SWF	Stewart AFB, N.Y.
RME	Griffiss AFB, N.Y.	TIK	Tinker AFB, Okla.
HIF	Hill AFB, Utah	SUU	Travis AFB, Calif.
ALM	Holloman AFB, N. Mex.	TRF	Turner AFB, Ga.
SVN	Hunter AFB, Ga.	PAM	Tyndall AFB, Fla.
BIX	Keesler AFB, Miss.	END	Vance AFB, Okla.
SKF	Kelly AFB, Texas	RSW	Walker AFB, N. Mex.
LFI	Langley AFB, Va.	CEE	Westover AFB, Mass.
MSK	Larson AFB, Wash.	CHD	Williams AFB, Ariz.
LSF	Lawson AFB, Ga.	FFO	Wright-Patterson AFB, Ohio
LRV	Lowry AFB, Colo.	OFF	Offutt AFB, Nebr.
MCF	MacDill AFB, Fla.	MSP	Minneapolis-St. Paul Int'l AP
RIV	March AFB, Calif.	ABQ	Kirtland AFB, N. Mex.
MER	Mather AFB, Calif.	GFA	Great Falls AFB, Mont.
MXF	Maxwell AFB, Ala.	GRP	Greater Pittsburgh AP
TCM	McChord AFB, Wash.		

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington 25
December 6, 1951

File: 113
115.1
115.4

A-4

CIRCULAR LETTER NO. 49-51
(To All First Order Stations)

Subject: Effect of Section 1310 of the Supplemental Appropriation Act, 1952 (Whitten Amendment) on Promotion, Reduction in Force and Transfer Actions.

Following enactment of the Appropriation Act of 1952, it became necessary for the Civil Service Commission to revise its regulations governing the types of actions listed above. These revised regulations are reproduced below for information of all employees.

"Sec. 8.109 RESTRICTIONS ON PROMOTION, TRANSFER OR APPOINTMENT TO A HIGHER GRADE, AND REASSIGNMENT TO A DIFFERENT LINE OF WORK.

(a) Reassignment after competitive appointment.

No person who has been given a competitive appointment under section 2.113 or 2.115 (a) or (b) of this chapter shall be reassigned to a different line of work within three months after such appointment if the position to be filled is not higher than grade GS-5 (or equivalent) or within six months after such appointment if the position is higher than grade GS-5 (or equivalent).

(b) Actions to grade GS-5 or below (or equivalent).

- (1) No employee or former employee may be promoted, transferred to a higher grade, or appointed to a higher grade within three months after his last competitive appointment under section 2.113 or 2.115 (a) or (b), and
- (2) No employee or former employee may be advanced more than two grades above the lowest grade he held within the past twelve months under permanent or indefinite appointment. This advancement may be two grades at one time or in two separate actions.

(c) Actions to grade GS-6 or above (or equivalent).

- (1) No employee or former employee may be promoted, transferred to a higher grade, or appointed to a higher grade within twelve months after his last permanent or indefinite appointment which began his current period of continuous Federal employment, or after his last promotion, transfer to a higher grade, or appointment to a higher grade (whichever is later), and

(2) No employee or former employee may be advanced more than one grade above the lowest grade he held within the past twelve months under permanent or indefinite appointment. However, in the following cases he may be advanced two grades above the lowest grade he held within the past twelve months when the position to be filled is:

- (i) Not higher than grade GS-11 (or equivalent) and is in a line of work properly classified at two-grade intervals under the Classification Act of 1949, or properly established at equivalent intervals under other wage fixing authority; or
- (ii) In the agency in which he is serving if there is no position in the normal line of promotion in the grade immediately below that of the position to be filled and prior approval of the Commission has been obtained.

(d) Training Agreements.

The restrictions in this section shall not apply to any person who is being promoted in accordance with a training agreement which has been approved by the Commission. Such agreements shall not provide for advancement of more than two grades (or equivalent) within any twelve-month period. For further advancement to GS-6 (or equivalent) or above, any time or grade requirement in accordance with paragraph (c) of this section shall begin with the effective date of the last promotion under the training agreement. For all grades, further promotions shall not result in advancement of more than two grades within any twelve month period.

(e) Persons demoted or separated by reduction in force.

The restrictions in this section shall not apply to any person who is being advanced to any grade or level up to that from which he had ever been demoted or separated, by any agency, because of reduction in force. Any time or grade requirement for advancement above the grade or level from which he had been separated or demoted shall begin with the effective date of his advancement to that grade.

(f) Persons within reach on registers.

The restrictions in this section shall not apply to any person who is within reach on a civil service register for competitive appointment to the position to be filled. Any time or grade requirement for further advancement shall begin with the effective date of the action permitted by this paragraph.

OUTSTANDING AGREEMENTS AND AUTHORITIES

All outstanding agreements and authorities covering positions under the Classification Act of 1949 which are in conflict with the new regulation quoted above are hereby amended to conform with the new regulation.

GENERAL EXCEPTION TO REVISED REGULATION 8.109 FOR POSITIONS NOT UNDER THE CLASSIFICATION ACT OF 1949.

The Departments of the Army, Navy, and Air Force have requested that the requirements of the revised Regulation 8.109 be modified for a 60 day period insofar as they pertain to positions not under the Classification Act of 1949. This request resulted from their desire to propose comprehensive plans governing requirements for promotion of their ungraded employees. The Commission has approved this request. It has informed the Department of Defense that the revised Regulation 8.109 would not apply to their ungraded positions for a period of 60 days, but that the requirements contained in Regulation 8.109 in effect immediately prior to the passage of Section 1310 will continue to apply to these positions for this period.

The Commission hereby grants this same exception to all agencies. This means that the provisions contained in Regulation 8.109 in effect prior to the enactment of the new Whitten Amendment will continue to be applicable to all positions not under the Classification Act of 1949. This general exception will automatically expire 60 days from the date of this departmental circular.

EFFECT OF THE WHITTEN AMENDMENT ON REDUCTION IN FORCE PROCEDURES.

The Whitten Amendment provides that: 'All transfers of permanent employees made on a temporary basis since September 1, 1950, shall be changed to a permanent basis as of the effective date of this Act: Provided, that such employees shall retain their status as permanent employees in the agency to which transferred at the grade or basic pay level of their permanent positions in the agency from which transferred.' This means that certain employees who are now in retention preference group X must be changed to either group PA or TA.* The following instructions are furnished to carry out this provision of the Act. (All retention preference groups listed below are based on the current definitions in Section 20.3 of the Regulations).

Employees who are now in retention preference group X will be affected as follows:

1. If they moved from one agency to another without a break in service of one work day or more at any time on or after September 1, 1950, they will be placed in retention preference group PA or TA in accordance with the following instructions:

* PA for permanent and TA for temporary

- (a) All employees who were in group PA in a previous agency and who are now in the same or lower grade or level than their last permanent positions in the previous agency shall be placed in group PA.
 - (b) All employees who were in group PA in a previous agency and who are now in a higher grade or level than their last permanent position in a previous agency shall be placed in group TA. Such employees shall also be considered in group PA in their new agency at the grade or level of their last permanent position in their previous agency.
 - (c) All employees who were in group TA in a previous agency and who are now in the same or lower grade or level than their last permanent position in a previous agency shall be placed in group PA.
 - (d) All employees who were in group TA in a previous agency and who are now in a higher grade or level than their last permanent position in a previous agency shall be placed in group TA. Such employees shall be considered in group PA in their new agency at the grade or level of their last permanent position in their previous agency,
2. If they moved from one agency to another with a break in service of thirty calendar days or less on or after September 1, 1950, they will remain in group X.

Employees who moved noncompetitively from one agency to another with a break in service of more than 30 days will continue to remain in group B.

Your attention is invited to the fact that any reduction in force action taken after the enactment of the new Whitten Amendment must conform to the provisions of the Act. If advance notices of proposed action have been issued prior to the passage of the Act, it will be necessary to amend these notices if the retention order is changed as a result of the new legal requirements. In this case, it is the effective date of reduction in force action that governs and not the date on which employees were notified of the pending action.

TRANSFERS OF PERMANENT EMPLOYEES

The regulations on movement of employees between agencies will be amended shortly to permit transfers of permanent employees. Until amended regulations are issued permanent employees who move to other agencies without a break in service of one work day or more shall be placed in retention preference groups according to the guides given above in the section on reduction in force procedures."

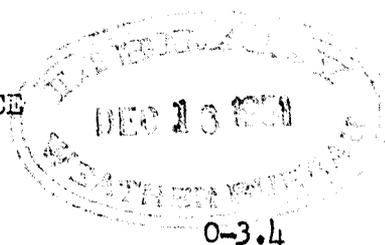


F. W. Reichelderfer
Chief of Bureau

L. b.

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



File: 458.3

December 17, 1951

CIRCULAR LETTER NO. 43-51
(To All First-Order Stations)

Subject: Ceiling and Pilot Balloons for the 1952 Fiscal Year

1. Ceiling Balloons.--The 10-gram ceiling balloons for the 1952 fiscal year will be supplied by Smith Rubber Craft, Inc. These balloons will be made of neoprene and should be heat-conditioned in accordance with the instructions in Circular O, section A3120.
2. Pilot Balloons.--The 30-gram and 100-gram pilot balloons for the 1952 fiscal year will be supplied by the Dewey and Almy Chemical Company. They will be made of neoprene and should be heat-conditioned in accordance with Circular O, section A3120.
3. Defective Balloons.--Defective balloons (including 10-gram balloons) should be reported in accordance with the instructions in Circular O, section A3130. If in any monthly period, 10% or more of the 100-gram balloons used are found to be defective prior to the release due to pinholes or to bursting during inflation, the defective 100-gram balloons should be forwarded to the Central Office, marked "Attention: Instrument Division." Exception: Balloons which are found defective more than one year after the date of manufacture or which burst as the result of mechanical damage should not be returned. Each shipment of defective balloons to the Central Office should contain a slip indicating the name of the station, name of the manufacturer, and date of manufacture. An ink circle should be placed around such defects as pinholes and a note identifying other defects, such as "burst during inflation," should be written on the balloon in ink.
4. Superseded Instructions.--These instructions supersede those contained in Circular Letters Nos. 41-48, May 18, 1948, Subject: Use of Neoprene Pilot Balloons; No. 92-48, Oct. 20, 1948, Subject: Use of Natural Latex Pilot Balloons; and No. 11-50, Feb. 1, 1950, Subject: Pilot and Ceiling Balloons for the 1950 Fiscal Year, which are hereby cancelled.

F. W. Reichelderfer
Chief of Bureau

PS: Separate instructions for conditioning ceiling balloons at second-order stations are being issued.

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
Washington

In reply, please address
CHIEF OF BUREAU
and refer to

June 3, 1941.

Opr.-Ta
File No. 603.9
(040.4)
(730.4)

CIRCULAR LETTER NO. 69-41.
(For all stations)

Subject: Use of Shear-Stability Ratio Vector.

The shear-stability ratio vector is used in analyzing:

1. Isentropic charts
2. Atmospheric cross-sections on which isolines of potential temperature are drawn.

For purposes of abbreviation, the word isentrope will be used instead of isentropic surface. Further, the letters SSRV will mean shear-stability ratio vector.

I. Application to Isentropic Analysis.

By examining the mathematical form of the SSRV, a convenient conception of this new quantity for isentropic map analysis purposes is obtained. At any point on an isentropic surface where it is to be evaluated, the component equations of the SSRV are:

$$(1) \left\{ \begin{array}{l} S_x = \frac{\partial u / \partial z}{\frac{1}{\theta} \partial \theta / \partial z} = -\frac{C_p}{f} \left(\frac{dT}{dy} \right) \theta \\ S_y = \frac{\partial v / \partial z}{\frac{1}{\theta} \partial \theta / \partial z} = \frac{C_p}{f} \left(\frac{dT}{dx} \right) \theta \end{array} \right. \left. \vphantom{\begin{array}{l} S_x \\ S_y \end{array}} \right.$$

Normal right hand axes are used where:

- x - direction is taken as positive going from West to East.
- y - direction is taken as positive going from South to North.
- z - direction is taken as positive going vertically upward.
- S_x = the component in the x-direction of the SSRV, positive from West to East.
- S_y = the component in the y-direction of the SSRV, positive from South to North.
- u = the component of wind in the x-direction.
- v = the component of the wind in the y-direction.
- θ = the potential temperature.

$\frac{\partial u}{\partial z}$ = the "shear" of two horizontal layers of air in the x-direction, an infinitesimal distance apart. Sometimes this quantity is called the "distribution of the x-component of the wind velocity with respect to the vertical."

$\frac{\partial v}{\partial z}$ = the "shear" of the two horizontal layers of air in the y-direction, an infinitesimal distance apart. Sometimes this quantity is called the "distribution of the y-component of the wind velocity with respect to the vertical".

$\frac{\partial \theta}{\partial z}$ = the rate of change of potential temperature with vertical height.

$\frac{1}{\theta} \frac{\partial \theta}{\partial z}$ = the "stability" of an air particle at the point the SSRV is evaluated. This is a measure of the resistance of the atmosphere to vertical displacements of the air particle concerned, when air is unsaturated.

∂ = is the partial derivative symbol.

NOTE: It may be seen that the SSRV gets its name from its being the ratio of the shear to the "stability". It is this aspect of the quantity which is measured by taking synoptic wind and radiosonde data. In the appendix will be found instructions for obtaining SSRV. The appendix is a copy of the circular sent to all stations transmitting RAOB data. In the circular it may be noted that the system of axes employed is left-handed.

The coordinates of the graph on which the SSRV is worked up from the sounding and wind data are wind velocity and $\ln \theta$ (natural logarithm of potential temperature). The slope of a curve obtained in this way is a measure of the magnitude of the SSRV component desired because:

$$(2) \left\{ \begin{array}{l} S_x = \frac{\partial v / \partial z}{\frac{1}{\theta} \frac{\partial \theta}{\partial z}} = \frac{dv}{d(\ln \theta)} \\ S_y = \frac{\partial u / \partial z}{\frac{1}{\theta} \frac{\partial \theta}{\partial z}} = \frac{du}{d(\ln \theta)} \end{array} \right.$$

C_p = the specific heat at constant pressure of the air particle in ergs per gram per °C.

f = the Coriolis parameter = $2 \omega \sin \phi$

ω → = the angular velocity of rotation of the earth about its axis.

ϕ = the latitude at the point the SSRV is desired.

T = temperature in °A.

$\left(\frac{\partial T}{\partial y}\right)_\theta$ = the temperature gradient in the y-direction on an isentrope (i.e., where θ , the potential temperature, is constant).

$\left(\frac{\partial T}{\partial x}\right)_\theta$ = the temperature gradient in the x-direction on an isentrope where θ , the potential temperature, is constant.

The mathematical equations are interpreted to mean that the magnitude of the SSRV is proportional to the magnitude of the temperature gradient.

The following are rules for the practical use of the SSRV:

1. Facing the direction toward which the SSRV points, temperatures in an isentrope are lower on the left.

2. Isotherms drawn through any point on an isentropic surface run parallel to the SSRV determined at that point.
3. The magnitude of the SSRV at any point is directly proportional to the magnitude of the temperature gradient at that point. Larger values of the SSRV indicate closer spacing of isotherms on an isentropic surface.

The following are useful points to remember about the SSRV:

1. Although it has the dimensions of a velocity, it is not a velocity and does not represent displacements on an isentropic surface.
2. In deriving the equations for the SSRV, it is assumed that the isobars on the synoptic weather map are straight and parallel and that geostrophic wind flow prevails. This means that in many cases where the isentrope passes close to the ground (1500 ft. or 500 meters), the SSRV is not representative. It is not representative when there is marked curvature of the isobars. (on a constant level map)
3. In turbulent regions or where the lapse rate is adiabatic, the value of the SSRV is infinite. The direction of the isentrope is not defined at these points and so we cannot speak of a spacing of isotherms. In fact, in raob code transmission, values of the SSRV of 200 decameters per second or greater will be reported as 99. No attempt should be made to plot an SSRV in these cases.
4. Superadiabatic lapse rates indicate a transient condition and the SSRV is not representative.

Plotting Routine

The value of the direction and magnitude of the SSRV is obtained from the RAOB message and plotted to some convenient scale like 2 cms. for 100 decameters per second. Thus, if on November 28, 1940, the value of the SSRV for Charleston for the 296°A. potential temperature surface was transmitted as 48 decameters per second from a direction of 220°, it would be plotted as shown on Chart I.

Ordinates on graph I give the distance between 10°A. (or °C.) isotherms for a given value of the SSRV (abscissas) at the indicated latitude. Latitudes should be taken as approximate, thus for Charleston the line marked 35° would be used.

The vertical scale has been constructed so that ordinates will represent the actual distance between isotherms 10°A. (or °C.) apart on an isentropic map scale of 1:10,000,000.

Centering this indicated distance at Charleston for a SSRV of 48 decameters per second, perpendicular to the plotted vector arrow for the SSRV, mark both end points with crosses.

Facing the direction toward which the SSRV points, lower values of temperature occur to the left.

At Charleston, the temperature in the 296°A. isentrope corresponding to a transmitted pressure of 780 mbs. is +2.6°C. Interpolate to the nearest one-tenth degree Centigrade. Since the temperature interval between crosses is 10°C., and the temperature at Charleston is +2.6°C., the temperature at the mark near Columbia, S. C., would be -2.4°C. and at the other mark, +7.6°C.

Then interpolate from Table I to find the pressures corresponding to these temperatures on the 296°A. potential temperature surface. These are 733 mbs. for -2.4°C. and 830 mbs. for +7.6°C.

Two additional points are then available to construct the analysis shown in Chart I, in addition to the fact that the isobars drawn in the neighborhood of Charleston should parallel the SSRV.

It is customary to analyze isentropic charts using pressure as the thermodynamic variable instead of temperature. However, as the magnitude of the temperature gradient is directly proportional to the magnitude of the SSRV, whereas the magnitude of gradient of the 0.288 power of the pressure is proportional to the SSRV, it is easier to work with temperature. This causes no confusion, for as may be seen from an adiabatic chart, at any given potential temperature, there corresponds only one value of pressure for a given value of temperature (and vice-versa). Hence, given a table of corresponding values of pressure and temperature for respective potential temperatures, conversions between these variables are easily made. (See Table I).

With some experience, map analysts may derive the benefits of the SSRV using only the direction and comparative lengths in interpolating isobars.

References:

1. Montgomery, R.B., and Spilhaus, A.F. - "Examples and Outline of Certain Modifications in Upper-Air Analysis" - Journal of the Aeronautical Sciences, Section one, May 1941, vol. 8, number 7, pps. 276-283.
2. Spilhaus, A. F. - "The Shear Stability Ratio Vector and Its Use in Isentropic Analysis" - BAMS, vol. 21, No. 6, pps. 239-248, June, 1940.

TABLE I

Corresponding Values of Pressure and Temperature For
A Given Potential Temperature.

290° 296° 302° 308° 314° 320°							290° 296° 302° 308° 314° 320°								
A. A. A. A. A. A.							A. A. A. A. A. A.								
T	P	P	P	P	P	T	T	P	P	P	P	P	P	T	
°C.	mbs.	mbs.	mbs.	mbs.	mbs.	°A.	°C.	mbs.	mbs.	mbs.	mbs.	mbs.	mbs.	°A.	
39					978	915	312	-3	780	727	678	633	592	554	270
38					968	905	311	-4	770	718	669	625	584	547	269
37					956	895	310	-5	760	708	661	617	577	540	268
36					946	885	309	-6	751	699	652	609	569	533	267
35				1000	935	875	308	-7	741	691	644	601	562	527	266
34				989	924	866	307	-8	731	682	635	593	554	519	265
33				978	913	856	306	-9	721	673	627	586	547	513	264
32				967	903	847	305	-10	712	664	618	578	540	505	263
31				955	893	837	304	-11	703	655	611	570	533	498	262
30				944	883	827	303	-12	693	646	603	563	526	493	261
29			1000	933	873	818	302	-13	684	637	594	555	518	487	260
28			988	923	863	809	301	-14	675	629	586	547	512	479	259
27			978	912	853	800	300	-15	666	621	579	541	505	473	288
26			965	902	843	790	299	-16	657	613	571	533	498	467	257
25			954	892	833	781	298	-17	648	604	563	526	492	461	256
24			943	881	824	772	297	-18	640	597	556	518	485	455	255
23		1000	933	871	814	763	296	-19	631	588	548	512	478	448	254
22		988	922	861	805	754	295	-20	623	580	541	505	472	443	253
21		977	911	851	796	745	294	-21	614	572	533	498	465	437	252
20		965	901	842	786	736	293	-22	606	564	526	491	459	431	251
19		954	890	832	777	727	292	-23	597	557	519	484	453	424	250
18		943	880	822	768	719	291	-24	588	549	512	477	447	418	249
17	1000	932	869	812	758	711	290	-25	581	541	504	471	441	413	248
16	988	920	858	802	749	702	289	-26	573	533	497	464	434	407	247
15	975	908	848	792	741	693	288	-27	565	526	491	458	428	402	246
14	964	898	838	783	732	685	287	-28	557	518	483	452	422		245
13	953	887	828	773	723	677	286	-29	549	512	477	445	416		244
12	941	877	818	763	714	668	285	-30	542	504	470	439	410		243
11	929	866	808	754	705	661	284	-31	534	497	463	433	404		242
10	918	856	798	746	697	653	283	-32	526	490	457	426			241
9	907	845	788	737	689	645	282	-33	518	482	450	420			240
8	895	834	778	728	680	637	281	-34	512	476	443	414			239
7	885	824	769	719	672	629	280	-35	504	469	437	408			238
6	873	814	759	709	663	621	279	-36	496	462	431	403			237
5	863	804	750	701	655	613	278	-37	489	456	424				236
4	852	794	741	692	647	606	277	-38	482	449	418				235
3	842	784	731	683	639	598	276	-39	475	442	412				234
2	832	774	722	674	631	591	275	-40	467	436	406				233
1	821	765	713	666	623	583	274	-41	461	429	400				232
0	811	755	703	658	615	576	273	-42	454	423					231
-1	801	746	696	650	607	568	272	-43	448	417					230
-2	790	737	687	642	600	562	271	-44	441	411					229

II. Application to Atmospheric Cross-Section Analysis.

The expressions useful here are:

x-sections

$$(4) \begin{cases} S_x = g/f (\tan \gamma_y - \tan \alpha_y) \\ S_y = -g/f (\tan \gamma_x - \tan \alpha_x) \end{cases}$$

where at the point in question:

- g = acceleration of gravity.
- γ_x = angle made by isentrope with the x-axis.
- γ_y = angle made by isentrope with the y-axis.
- α_x = angle made by isobaric surface with the x-axis.
- α_y = angle made by isobaric surface with the y-axis.

The other symbols were defined in Part I.

By the slope of a surface at a point is meant the numerical value of the tangent of the angle the surface makes with the horizontal plane. The slope of the isobaric surface in expressions (4) may be neglected, for it is generally small and has little effect on the value of the SSRV no matter what the value of the slope of the isentrope may be.

Then, the slope of an isentrope with respect to the North-South direction is proportional to the magnitude of the East-West component of the SSRV. Also, the slope of an isentrope with respect to the East-West direction is proportional to the magnitude of the North-South component of the SSRV.

Potential temperature is plotted against height for each station on an atmospheric cross-section. Cross-sections are usually constructed in East-West and North-South directions. When analyzed, the cross-sections give the projection of a set of isentropic surfaces on the planes of these sections.

It is often difficult to judge just where troughs and ridges of potential temperature occur. Such information is of practical value in locating fronts on the synoptic weather map. The SSRV enables us to get the slopes of these potential temperature lines above the radiosonde station, and thus helps the analysis.

Plotting Routine.

The SSRV is reported for three potential temperature surfaces. For Charleston, S.C., on November 28, 1940, the SSRV for the 296°A, 302°A, and 308°A potential temperature surfaces would be reported respectively as 48 deks/sec. from 220°, 48 deks/sec. from 220°, and 24 deks/sec. from 240°. These were resolved into East-West and North-South components in the following table:

θ (°A.)	SSRV Magnitude (deks/sec.)	SSRV Direction (from)	S_x (deks/sec.)	S_y (deks/sec.)	Hgt. above sea level (kms.)
296	48	220°	+34	+37	2.18
302	48	220°	+34	+37	2.70
308	24	240°	+28	+18	3.48

The heights above sea-level of the potential temperature surfaces were found by plotting a pressure-height curve for the transmitted sounding.

Form A contains a set of protractors for four latitudes, each of which can be used both for North-South and East-West cross-sections. While a different protractor is used for each station on a North-South section, it is suggested that one protractor be used for all stations on an East-West section.

The protractors have been constructed to give the actual slope of a potential temperature surface corresponding to an indicated value of the SSRV component for a cross-section magnified 265 times in the vertical relative to the horizontal scale.

To find the slopes to be plotted at Charleston on the East-West cross-section Chart II, (Oklahoma City, Nashville, Charleston) use the values in the column under S_y , the North-South component of the SSRV.

For a potential temperature of 296°A . at Charleston, enter the protractor marked 35°L , and transfer the slope of the line marked $+37^*$ to the cross-section. The slopes are transferred directly from the protractor for the proper latitude.**

It will be noted that if the SSRV components were available for Nashville, the ridge in the potential temperature isolines could be located more exactly.

The East-West components of the SSRV (S_x) are used similarly to find the slopes of the corresponding potential temperature lines on the North-South cross-section, Chart III, (Miami, Charleston, Washington).

Before the slopes can be determined the North-South and East-West components must be computed from the resultant SSRV and direction received in the RAOB report. The breaking down of the resultant into components can be performed graphically (as on a pilot-balloon plotting board, or on graph paper using the parallelogram method), or it can be performed by trigonometric calculations.

* $+37$ = North-South component of SSRV.

** The proper sloping line in any individual case is identified by the number along the circumference of the protractor equivalent to the appropriate component of the SSRV.

Respectfully,



F. W. Reichelderfer,
Chief of Bureau.

APPENDIX

. Evaluation of Shear-Stability Ratio Vector.

The following instructions will be used pending issuance of revised Weather Bureau Circular P for determining the shear-stability ratio vectors for three isentropic surfaces as required by the revised raob code effective June 1, 1941, recently forwarded to each station.

The shear-stability ratio vector is used as an aid in constructing isobars on isentropic surfaces. The vector has the property that it is always parallel to the isobars and is directed cyclonically around low pressure and anticyclonically around high pressure in the isentropic surface to which it pertains. The magnitude of the vector may be used to compute the spacing of isobars and isotherms in the isentropic surface. A discussion of the subject is contained in the following article: A.F. Spilhaus, "The Shear-Stability Ratio Vector and Its Use in Isentropic Analysis", Bulletin of the American Meteorological Society, vol. 21, June, 1940, pages 239-248.

The shear-stability ratio vector can be regarded as composed of two components at right angles to each other. After the components are determined by calculation as explained hereunder, the shear-stability ratio vector can readily be found by adding the components vectorially by the well-known parallelogram method. The two components are defined as follows:

$$\frac{du}{dz} \bigg/ \frac{1}{\theta} \frac{d\theta}{dz} = \frac{du}{d(\ln\theta)}, \text{ the x-component}$$

and,

$$\frac{dv}{dz} \bigg/ \frac{1}{\theta} \frac{d\theta}{dz} = \frac{dv}{d(\ln\theta)}, \text{ the y-component}$$

where u = wind velocity component in the x direction, positive when from the south (the x-axis runs from south to north),

v = wind velocity component in the y direction, positive when from the west (the y-axis runs from west to east),

z = height (vertical coordinate),

θ = potential temperature,

$\ln\theta$ = logarithm of potential temperature to the base of natural logarithms, $e = 2.71828\cdots$

The x-component of the shear-stability ratio vector therefore represents the slope of u , the wind velocity component in the x-direction, for an

ascent when plotted against the logarithm of potential temperature; and the y-component of the shear-stability ratio vector represents the slope of v , the wind velocity component in the y-direction, for an ascent when plotted against the logarithm of potential temperature. }

For best results, the upper air wind data should be obtained by following the raob balloon with a theodolite. However, until further notice to the contrary, the 11 p.m., E.S.T., pibal observation will be used with the raob data for the 12:30 a.m., E.S.T., raob on the following day, and the 11 a.m., E.S.T., pibal data will be used in connection with the 12:30 p.m., E.S.T., raob on the same day.

Determination of Potential Temperature and Wind Components for Corresponding Altitudes.-- Before it is possible to plot u and v , respectively, against $\ln\theta$, so that the x- and y-components of the shear-stability ratio vector can be found from the slopes of the resulting curves, it is necessary to ascertain the values of u and v for the altitude for each minute of the ascent in addition to the value of θ for the corresponding altitude so that the data can be correlated for plotting. The values of potential temperature corresponding to the altitudes for the various minutes of the pibal ascent can be found by locating those altitudes on the pressure-height curve of the adiabatic chart, and noting the potential temperatures (to the nearest half-degree A.) as indicated by the temperature curve at the pressures corresponding to those altitudes.

The direction and velocity of the wind for each minute (Form 1110A) must be broken down into the N-S and E-W components, respectively. This can be done as follows by means of the pibal plotting board:

Rotate the celluloid protractor until the angle on the protractor, corresponding to the direction of the wind for the particular minute in question, is on the initial line of the cross-section scale, i.e., the vertical line from the center of the plotting board to the observer. Using a scale of 1 cm. = 1 meter per second (or some other convenient scale) plot the velocity using the center of the protractor as zero velocity and plotting outward from the center towards the observer. The data for each respective minute over a suitable range of time should similarly be plotted as points in the same manner, and each point numbered corresponding to the minute in question. After these points are indicated on the protractor, the protractor should again be rotated until 180° on the protractor is on the initial line of the cross-section paper. The plotted points will now have the desired orientation on the protractor. Using the same scale as before, obtain the N-S component of the wind for each minute (point) by measuring from the point to the horizontal axis of the protractor (horizontal in respect to the observer looking down on the plotting board, i.e., perpendicular to the initial line) and the E-W component by measuring from the point to the vertical axis. Points above the horizontal axis have a N-component; below the axis, a S-component. Points to the left of the vertical axis have a W-component, to the right, an E-component. Record these data on a form, which will be furnished for this purpose, by minutes, indicating the type of balloon used and the ascensional rate. The component should be entered

in direction and magnitude. NOTE: It is not always necessary to compute and plot the data for the complete pibal ascent. For example, if data are required for potential temperatures of 302°, 308°, and 314°, A., it is sufficient to plot only the points lying between 296° and 320°A.

Plotting the Data on the Shear-Stability Ratio Vector Diagram.— The Abscissa (horizontal scale) of this diagram is a logarithmic scale of potential temperature, and the ordinate (vertical scale) is a linear scale of components of wind velocity, in meters per second. On this diagram, plot the N-S and E-W components, respectively, against the corresponding potential temperatures. North and east components are plotted above the zero line of the diagram; south and west components below the zero line. This is illustrated by the attached Figure.

Smoothing the Curves on the Diagram.— Draw smooth curves by eye connecting the N-S points and the E-W points, respectively. Wind velocities computed from pibal ascents are subject to a certain amount of error, and in any case individual values deviate to some extent from the mean wind velocity. Furthermore, in routine isentropic analysis small-scale variations are without significance. Accordingly, it is essential to smooth out minor irregularities in the ascents on the diagram. It is suggested that the degree of smoothing be about as indicated on the attached example.

A rational basis for estimating the optimum degree of smoothing is afforded by consideration of the spacing of isentropes used in standard analysis. The difference between the successive specified isentropic surfaces is 6° of potential temperature, and therefore each is used, at least to some extent, to represent the characteristics of a layer of air whose thickness is defined by 6° of potential temperature. This consideration would lead to the conclusion that the significant shear-stability ratio is the mean for such a layer. Therefore, the smoothing should eliminate to a large extent variations of the shear-stability ratio occurring within a 6° range of potential temperature.

In order to set some concrete rule for the degree of smoothing, the distance between a maximum and a minimum on a curve should never be less than 5°. Furthermore, steep slopes should be avoided as far as possible.

As far as routine analysis is concerned, over-smoothing offers little danger. On the other hand, lack of sufficient smoothing would probably make the computed shear-stability ratios valueless.

Determining the Components of the Shear-Stability Ratio Vector for the Isentropic Surfaces.— The next step is to determine the slope of the curves at each of the three specified potential temperatures. For convenience in finding the slopes, a number of sloping lines are printed on the left-hand side of the diagram, each labeled with the appropriate value of the component of shear-stability ratio vector. Enough of these lines are printed so that no interpolation is necessary. Place one edge of a parallel ruler so that it is tangent to the N-S component curve at the potential temperature in question and then move the other edge of the parallel ruler until it coincides with one of the printed sloping lines. The values on the printed sloping lines are so designed that the magnitudes, x- and y-components of the shear-stability ratio vector, are represented in terms of the

unit "decameters per second". (Shear-stability ratio vector has the dimensions of velocity). The proper algebraic sign is shown by the words "Positive" and "Negative" adjacent to the values printed at the extremities of the sloping lines. Read the value of the sloping line coincident with the second edge of the parallel ruler, noting the proper sign. Proceed as above for each specified potential temperature and then repeat the procedure using the E-W component curve. Record these values, with proper sign, on the special form which will be furnished for this purpose.

Composition of Vector Components.--- The two components of the shear-stability ratio vector must be added vectorially in order to find the direction and magnitude of the shear-stability ratio vector. This can be done graphically by means of the plotting board as follows:

Set 180° of the protractor on the initial line if the N-S component is plus (+); set 0° on the initial line if minus (-), and using a scale of 1 cm. = 1 decameter per second (or some other suitable scale), plot its magnitude along the initial line. Then set 270° of the protractor on the initial line if the E-W component is plus (+); set 90° on the initial line if minus (-), and plot its length along a vertical line, towards the observer, from the first point. The resultant direction and magnitude (distance from center of plotting board to second point) of the shear-stability ratio vector is then read from the protractor when the second point is brought on the initial line. In reading the magnitude, use the same scale that was used for the components. (NOTE: It will be noted that the above method used to obtain the resultant shear-stability ratio vector differs from the method given in paragraph 143, Circular O, for obtaining the resultant winds). Record on the special form furnished the direction to the nearest whole degree and the magnitude to the nearest decameter per second.

SHEAR-STABILITY RATIO VECTOR DIAGRAM

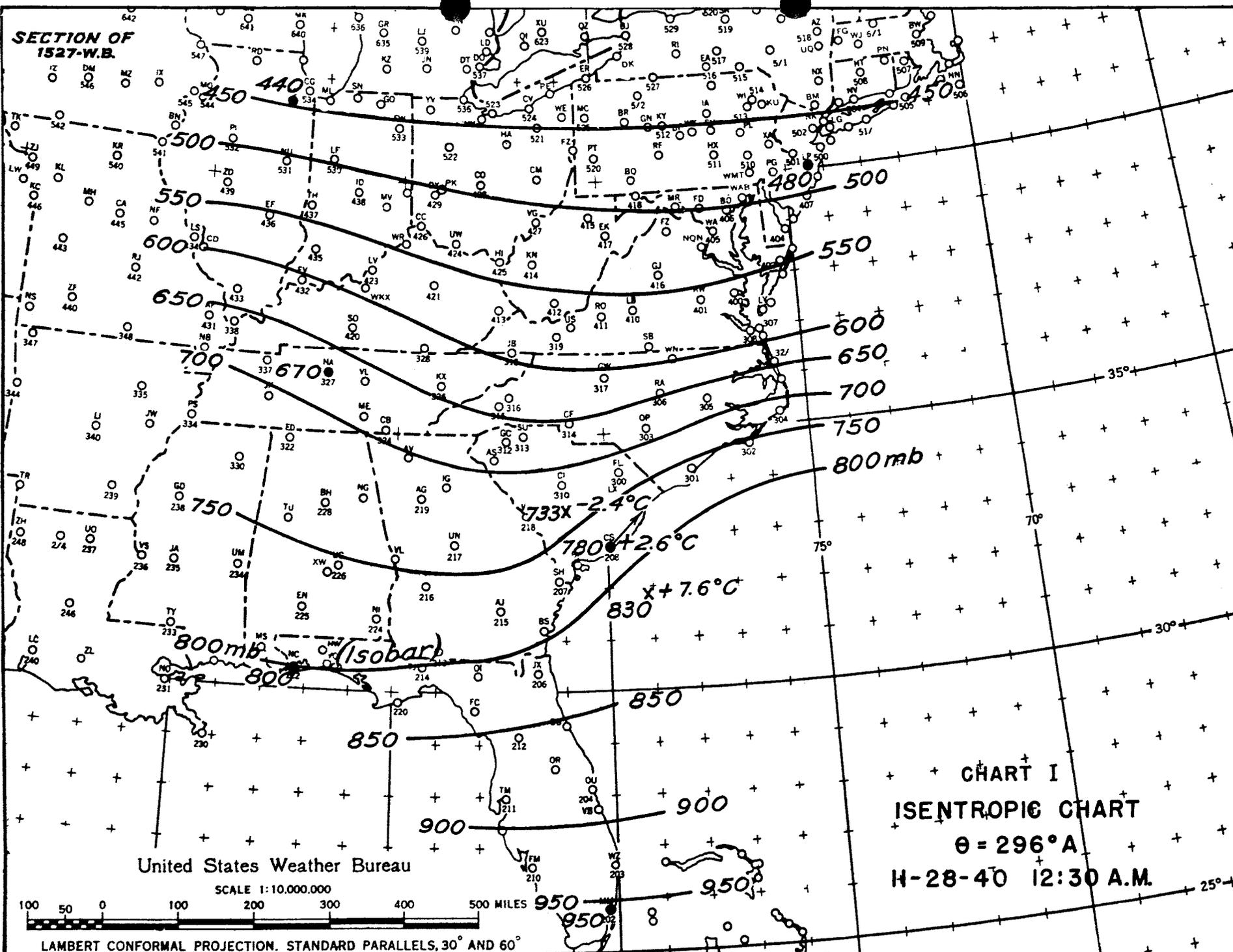
STATION Charleston, S. C.

DATE Nov. 28, 1940

TIME 12:30 a.m.

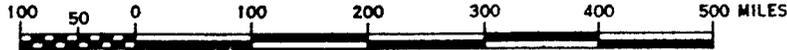


SECTION OF
1527-W.B.



United States Weather Bureau

SCALE 1:10,000,000

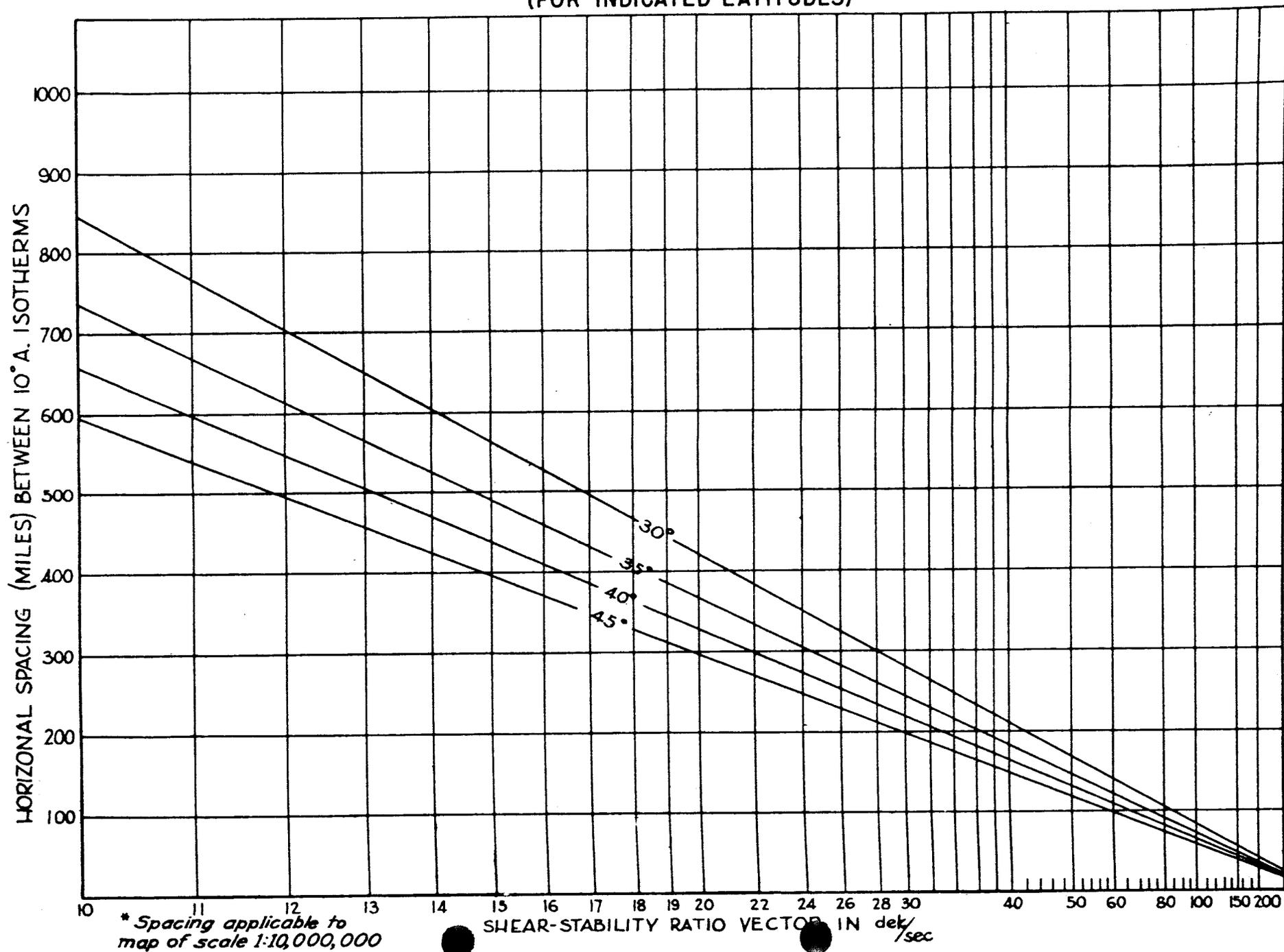


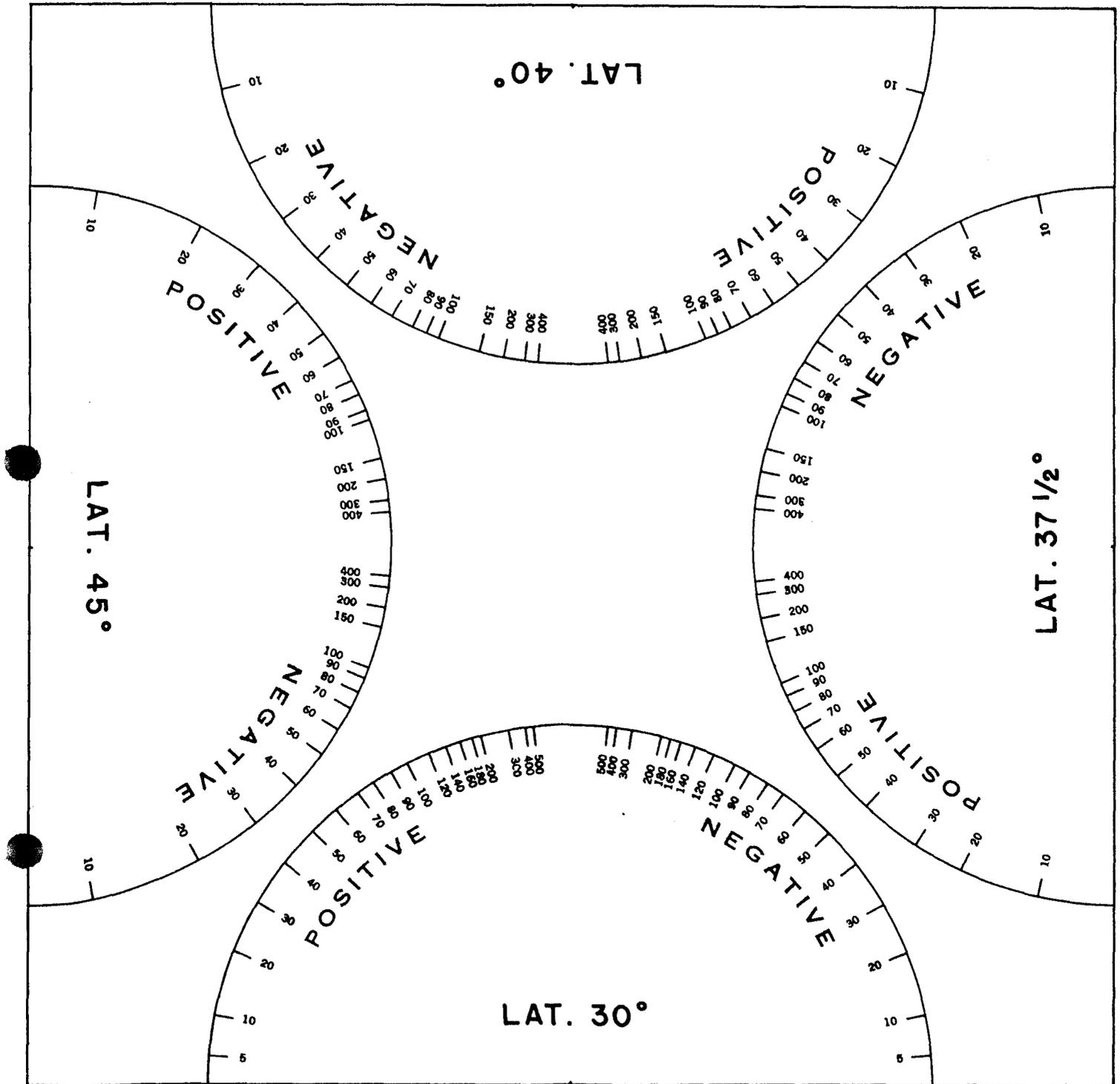
LAMBERT CONFORMAL PROJECTION. STANDARD PARALLELS, 30° AND 60°

CHART I
ISENTROPIC CHART
 $\theta = 296^{\circ}A$
H-28-40 12:30 A.M.

Graph I

ISENTROPE-ISOTHERM SPACING DIAGRAM
(FOR INDICATED LATITUDES)





The slope of the intercept of an isentropic surface with a vertical cross-section is indicated on the protractor for the given latitude by the slope of the line whose designator number equals the magnitude of the component of the SSRV at right angles to the cross-section. (The vertical scale of cross-section is magnified 265 times the horizontal scale. The slope is only appropriate on the cross-section to the elevation of the isentropic surface at the station).

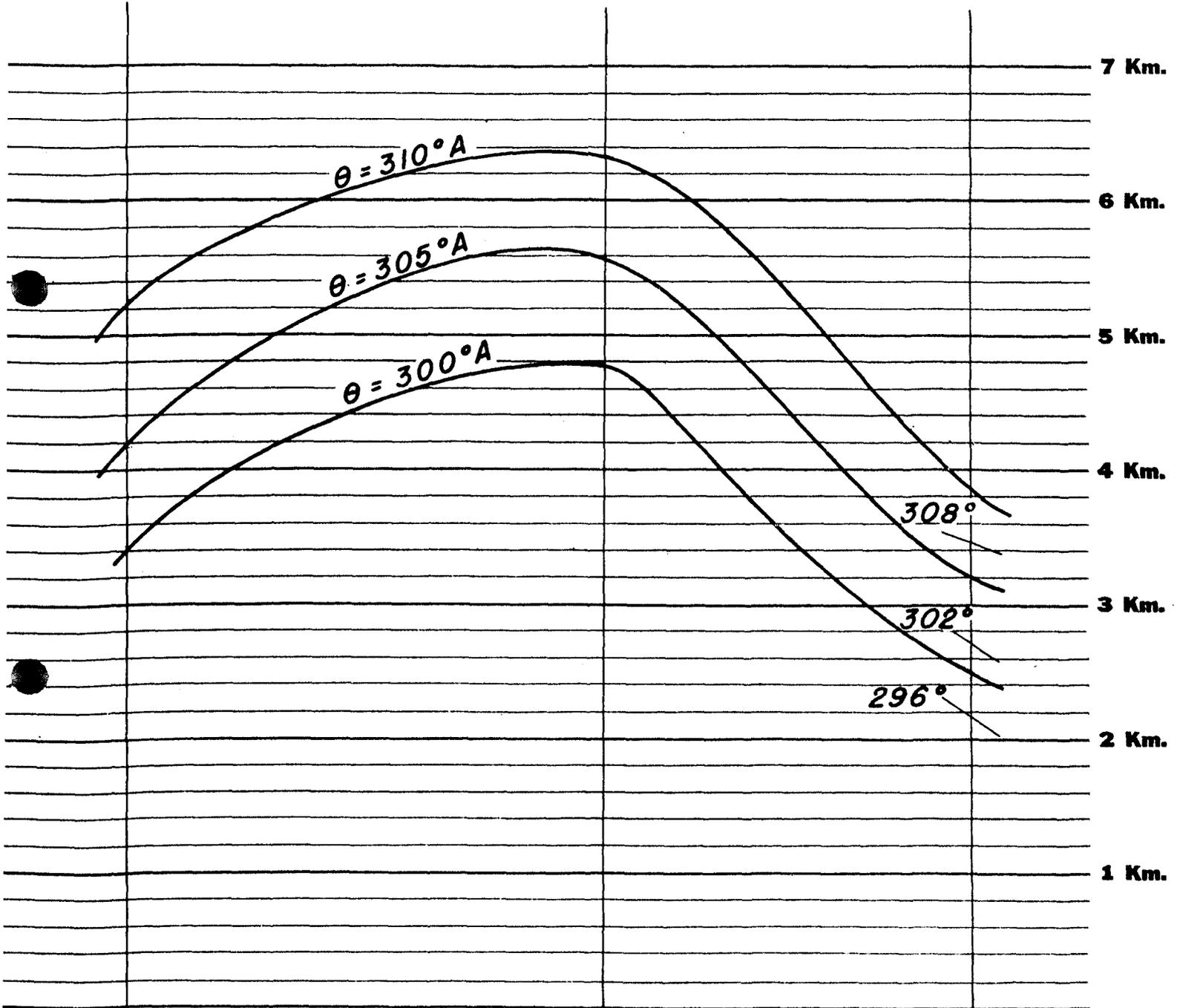
The SSRV is expressed in decameters per second.

EAST - WEST CROSS SECTION THROUGH THE ATMOSPHERE 12-28-40 12:30A.M.

OKLAHOMA CITY

NASHVILLE

CHARLESTON



Short slanting lines represent slopes of isentropic surfaces of indicated potential temperature as deduced from N-S component of SSRV. (The curves represent isentropic lines.)

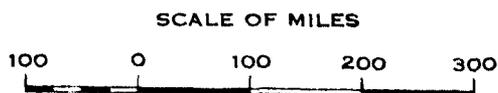
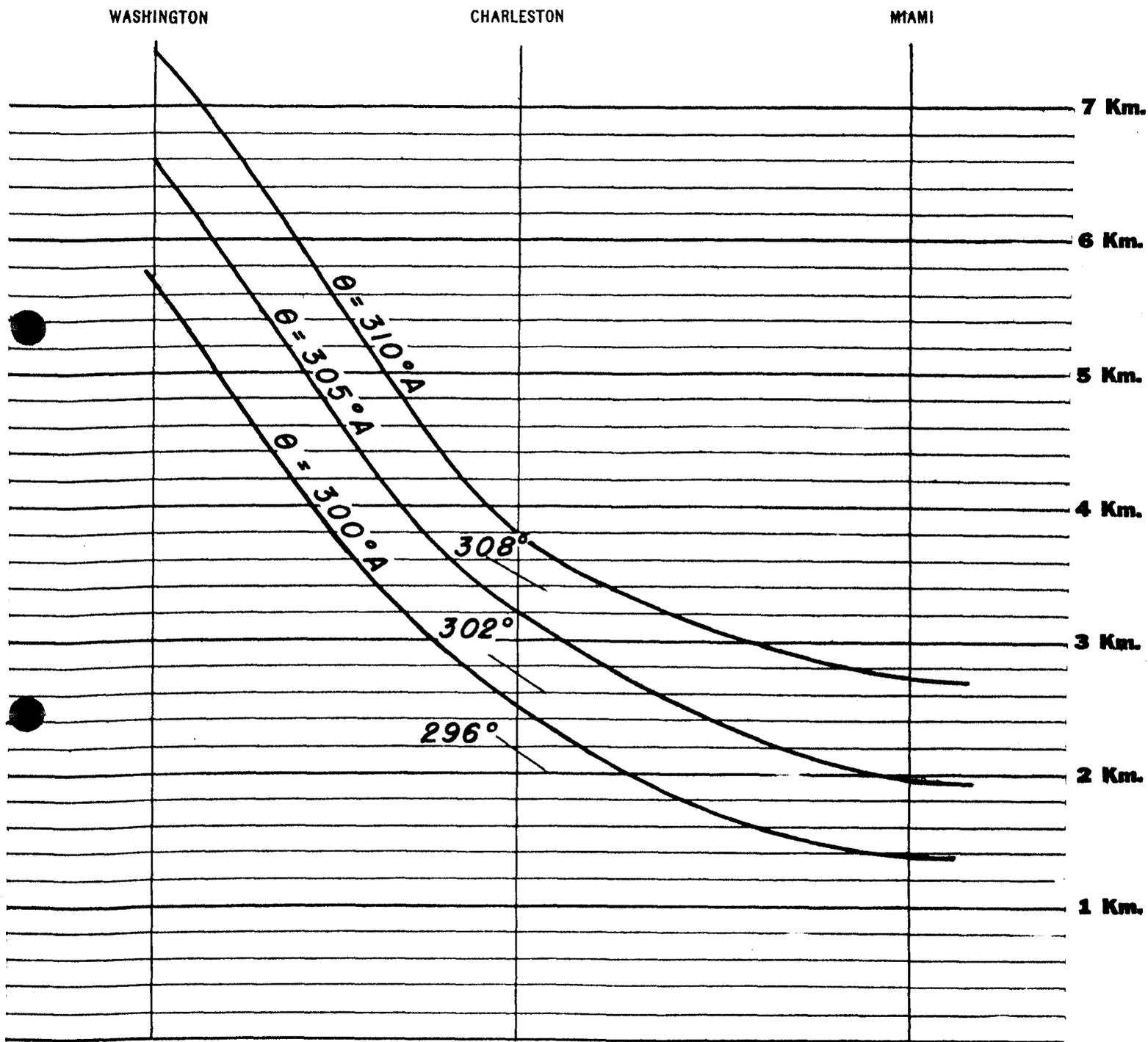


CHART II

NORTH-SOUTH CROSS SECTION THROUGH THE ATMOSPHERE 12-28-40 12:30A.M.



Short slanting lines represent slopes of isentropic surfaces of indicated potential temperature as deduced from W-E component of SBRV. (The curves represent isentropic lines.)

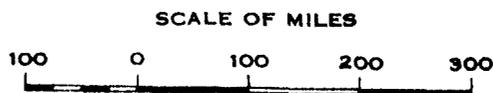


CHART III