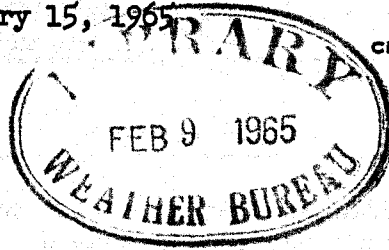


UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON

January 15, 1965

IN REPLY, PLEASE ADDRESS  
CHIEF, U. S. WEATHER BUREAU  
WASHINGTON 25, D. C.  
AND REFER TO  
A-3.3



U.S.W. B

CIRCULAR LETTER NO. 1-65

TO : All First-Order Stations  
FROM : Chief of Bureau  
SUBJECT: Retention of Circular Letters

Attached to this letter is a list of Circular Letters in effect on January 1, 1965. All Circular Letters not listed in the attachment to this letter should be removed from files and destroyed.

*George P. Casman*  
for Robert M. White

Attachment

Rare Book  
QC  
875  
.45  
465  
1965  
(incomplete)

# **National Oceanic and Atmospheric Administration Weather Bureau Circular Letters**

## **ERRATA NOTICE**

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December 6, 2007

UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON

Circular Letters for Years 1941-1964  
in effect on January 1, 1965

Serial Number	Date Issued	Issued by	Subject	File Number
71-41	6/17/41	Ofc.Chief	Official Visits by Representatives of Government Departments and Bureaus	070.1 030.6
26-45	3/26/45	SR&F	Amendments to "Preparation of Weather Maps"	730.4
70-46	8/21/46	Chf	Interdepartmental Policy on Publication of Weather Forecasts	620.1 622.1 621.5
18-47	3/18/47	Pers.	Interview of Applicants for Appointment	110
19-47	3/19/47	SR&F	Reply to inquiries regarding Air Carrier operations	620.11 603.51 070.2
65-47	8/4/47	SR&F	Code for Transmission of Microseismic Data	040 610.3 621.6
22-48	3/9/48	Ofc.Chf	Policy with Respect to Private Practice of Meteorology and Instructions regarding Cooperation with Private Meteorologists	070.2 000 420.3 620.8 622.1
58-48	6/30/48	Ofc.Chf	Cooperation with Amateur Weathermen of America	070.2
84-49	8/12/49	0-4.1	Policy conc. the establishment of cooperative climatological substations at Radio stations, Newspapers, and Public Agencies	531.2
87-49	8/15/49	0-5.31	WB Liaison with State Aviation Officials	070.2 080 600.21
146-49	12/21/49	0-5.21	Reporting of the Height of the 700 mb. Surface; Leadville, Colorado	610

Serial Number	Date Issued	Issued by	Subject	File Number
4-50	1/10/50	O-5.21	Weather Analysis Symbols	730.4
73-50	10/11/50	A-4	Policy & Proc. in Requesting Delay in Call to active duty of members of Reserve Components of the Armed Forces and Interim Policy Governing Requests for Def. Under the Sel. Service Act of 1948	130.4
22-52	5/29/52	O-5.32	Television	657.1
40-52	11/14/52	O-4.11	Substation Activities at SAWRS	520
44-52	12/18/52	A-3.3	Disposition of money received in conn. with the location of vending machines in Govt. offices	250
9-53	2/16/53	CWB	Review of Operating Programs	000
14-53	6/1/53	O-5.31	Newspaper Publication of Aviation Weather Outlooks	652.1 657
21-53	8/31/53	O-5.23	Local Distribution of Weather Information by Weather Telautograph Circuit	657 430.0
5-54	3/10/54	O-5.32	Localized Forecasts and Advices for Agriculture	653.1 630.1
6-54	3/11/54	O-5	Specialized Forecasts for Agriculture	653.1
13-54	4/20/54	CWB	Cooperation with Meteorologists in Industry	042.1
22-54	7/20/54	O-2.13	Section Center Consolidation	051
Addendum No. 1 22-54	8/10/54	O-2.13	" " "	051
Addendum No. 4 22-54	11/4/54	O-2.13	" " "	051
26-54	8/23/54	O-5.32	Participation in Television Weather Programs	657.1
34-54	12/15/54	O-5.32	Local Public Service Weather Circuits	432

Serial Number	Date Issued	Issued by	Subject	File Number <sup>3</sup>
6-55	2/21/55	CWB	Policy in Relation to Private Business	000 x042
9-55	3/2/55	0-5.32	Furnishing Weather Forecasts to Newspapers, Radio and Television Stations	657 x657.1 x432
25-55	5/4/55	0-5.31	Briefing Air Force Pilots	652.11
Addendum No. 1 25-55	3/8/61	0-5.31	Briefing Military Pilots	652.11
30-55	5/31/55	0-3.4	Recovered Radiosondes	458.0
12-56	3/19/56	0-5.31	Policy with Respect to Pilot Weather Briefing and Use of Standard Briefing Displays	652.11
15-56	4/19/56	0-5.32	Keeping Local Forecasts Current	652.3 657
21-56	5/22/56	0-5.32	Use of Automatic Telephone Answering Devices	657.2 431
Addendum No. 1 21-56	6/6/62	0-5.32	" " "	"
24-56	6/1/56	0-5.31	Operational Use of Terms "Instability Line", "Squall Line", & Line Squall"	650.2
4-57	2/12/57	0-5.31	Adequacy of Weather Briefing Service for Pilots	652.11 x131
13-57	6/4/57	CWB	Correspondence with Foreign Met'l Services	054.1
9-58	7/14/58	0-4.23	Mean-layer winds for National Hurricane Research Project	610 x630.1
2-59	2/2/59	0-5.32	Telecast of Images from WB Radar Scopes	657.1
Addendum No. 1 7-59	4/29/60	0-4.25	Radar Hazards	145 x467

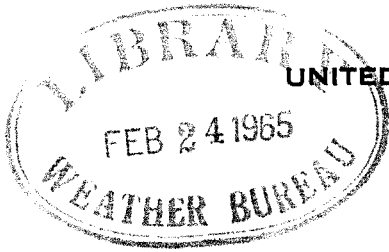
4

Serial Number	Date Issued	Issued by	Subject	File Number
2-60	2/8/60	0-4.12	Obtaining Substation Services by Contract	530 x403
Addendum No. 1 2-60	8/1/60	0-4.12	" " "	"
7-60	8/25/60	Ex0	Maintenance Procedures for Civil Defense Radiological Monitoring Instruments	465
8-60	9/12/60	0-5.32	Centralized Quantitative Precipitation Forecasts Unit	652.2
9-60	11/15/60	0-4.22	Changes in Distribution of Field Aide Reports	052
10-60	11/15/60	0-4.22	Commissioning of New Equipment	450 x610
2-61	1/23/61	0-4.22	Est. of Limited Airport Weather Reporting Stations (LAWRS)	520 x610.6
3-61	3/14/61	0-5.21	Manuscript Map Supply	770
4-61	3/15/61	C-3.3	Annotation of Monthly Local Climatological Data	733
6-61	4/10/61	0-5.31	Flight Safety Clinics	652.11 x041
10-61	10/31/61	A-4.3	Military Service of Members of Active Reserve Units	144.2
Addendum No. 2 12-61	1/3/64	C-3.3	New Climatological Standard Normals	733
2-62	2/8/62	Ex0	Civil Defense Planning - Alternate Site for WB Stations	000 x300
5-62	7/5/62	0-5.31	Minimum Ceiling and Visibility Requirements for VRF Flight and Use of the Term VFR in Pilot Briefing	652.11 x610
7-62	10/18/62	0-5.34	Radar Weather Observations from Cooperative Agencies	041 x610.3 x467

Serial Number	Date Issued	Issued by	Subject	File Number
2-63	1/17/63	O-4.25	Hazards of Exposure to Micro-wave Radiation	145 x467
3-63	1/18/63	O-5.34	Service A Inclusion of AR Information with SD-1	610.3 x630
6-63	6/28/63	O-5.34	Notification of Ofc. of Emergency Planning about Severe Storms	656 x041
7-63	7/10/63	A-2.2	Reporting WB Operational Output	051
Amendment No. 1 7-63	8/20/64	A-5	WB Program Accomplishment Report (WB Form 051-6)	051
8-63	8/19/63	C-3.1	Climate Statement for Real Estate Sales in New York	038.5
9-63	10/18/63	O-5.32	Requirement for Agreement Form WB 657-3 to cover cooperation with Automatic Telephone Answering Weather Services	657.2
Addendum No. 1 9-63	11/12/63	O-5.32	Guide Lines- To cover Coop. with Automatic Telephone Answering Weather Services	657.2
10-63	10/29/63	O-5.32	Use of Automatic Tele. Answering Devices and Ring-Throughs	657.2
11-63	11/18/63	O-5.32	Use of "Downtown Data"	630
12-63	12/24/63	O-5.31	Weather Support for Presidential Flights	652.1
2-64	1/22/64	CWB	Government - Private Meteorological Services	000 x042.1
3-64	4/21/64	O-5.31	Pilot Weather Briefing Log	652.11
Addendum No. 1 3-64	6/24/64	MS-6.24	Pilot Weather Briefing Log	652.11
4-64	6/12/64	MS-6.24	Winds Aloft Forecasts; FD Program in the 48 Contiguous States	652.1 x630
Addendum No. 1 4-64	7/29/64	MS-6.24	" " " "	"

Serial Number	Date Issued	Issued by	Subject	File Number
5-64	6/25/64	MS-6.21	Local Forecast Verification Program	650.1 x652.3
6-64	7/31/64	A-5	Economy Program	051
7-64	8/6/64	MS-6.12	Discontinuance of Practice Forecast Program	650.4
8-64	8/26/64	MS-6.1	Precipitation Forecasts	652.3
Addendum No. 1 8-64	10/21/64	MS-6.1	Precipitation Forecasts	"
9-64	9/18/64	MS-1.2	Establishment of User Service Representative in Each State	050
Addendum No. 1 9-64	12/2/64	MS-1.2	Establishment of User Service Representative in Remainder of States where not yet Designated	050
Addendum No. 2 9-64	12/10/64	MS-1.22	Establishment of User Service Representatives in Each State	050
10-64	10/29/64	MS-6.2	Use of Celsius Temperature Scale in Coded Synoptic Reports	761
11-64	11/20/64	MS-6.3	Use of Emergency Broadcast System for Dissemination of Emergency Weather and Flood Warnings	657.1 x656





UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON

February 8, 1965

IN REPLY, PLEASE ADDRESS  
CHIEF, U. S. WEATHER BUREAU  
WASHINGTON 25, D. C.  
AND REFER TO  
MS-6.23

CIRCULAR LETTER NO. 2-65

TO : All First Order Stations  
Regional Directors, WBRO's I, II, III, IV, V and VI

FROM : Director, National Meteorological Services

SUBJECT : Winds Aloft (and Temperature) Forecasts; FD Program  
in the 48 Contiguous States

REFERENCE: Circular Letter No. 4-64, June 12, 1964; Addendum No. 1  
to C. L. No. 4-64, July 29, 1964; MS-6.24 Memorandum to  
all First Order Stations, November 4, 1964

Attached is a description of the FD program for the 48 contiguous states  
scheduled for implementation on February 24, 1965.

This program, in effect, encompasses the final steps of the present NMC  
FD program. However, refinements will continue to be made in forecast  
procedures; and, toward this end, weather offices and users are encouraged  
to send us comments (attention MS-6.23) concerning the accuracy and  
usefulness of this forecast program.

This Circular Letter supersedes the reference correspondence which may be  
destroyed except those copies kept for your historical file.

George P. Cressman

Attachment

FILE: 652.1  
x630  
CL 2-65

(Winds Aloft (and Temperature) Forecasts: FD Program  
in the 48 Contiguous States)

WASHINGTON, D.C.  
2-8-65

Description of Winds - Aloft (and Temperature) Forecast

(FD) Program Scheduled for February 24, 1965

Effective 0550Z February 24, 1965, or soon thereafter, several changes will be made in the FD program so that it will consist of the following:

1. NMC will prepare four FD computations daily, for transmission beginning 0550Z, 1150Z, 1750Z and 2350Z. (Arrangements have been made to ensure that delay in FD transmissions will be rare.)
2. The format will be the same as the present, except a wind for 7,000 feet will be transmitted, e.g.

FD WBC 170550  
06-12Z

LVL 3000 5000 FT 7000 10000FT 15000FT 20000FT 25000FT

MLT 2415 2722+02 2825 2930-05 3133-13 3238-18 3343-24  
BOS 2015 2328+06 2430 2633-01 2936-10 3043-15 3048-21  
JFK ETC  
RIC

HAT  
ILM  
-

12-18Z

LVL 3000 5000 FT 7000 10000FT 15000FT 20000FT 25000FT

MLT 2925 2833+00 2930 3030-06 2828-13 3035-17 3140-22  
BOS  
JFK  
RIC

HAT  
ETC

- a. For stations whose elevations are 2,000 feet or below, the first forecast level will be 3,000 feet; for those above 2,000 to 4,000 feet the first forecast level will be 5,000 feet; and for those stations above 4,000 feet the first level will be 7,000 feet.

- b. Temperature forecasts will be appended to all wind forecasts for the four levels 10 to 25 thousand feet and to wind forecasts for 5,000 feet when this is the second level. Temperatures will not be given for the 3,000 and 7,000 foot levels, nor for the 5,000 foot level when this is the lowest level forecast.
  - c. Forecast winds of 100 kt to 199 kt will be indicated by subtracting 100 from the speed and adding 50 to the direction. For example, a forecast of 250 degrees, 145 kt would read 7545.
3. The total number of FD's prepared will be 94, essentially one for each grid square of the NMC computer standard-grid. The forecast transmitted will be for the FD location, and wind forecasts for any position or route may be obtained by interpolation between appropriate FD's. These 94 FD locations are listed in Exhibit 1 and shown on Chart 1.
4. The FD's will be transmitted via ADIS in one list, as Exhibit 1. They will be coded in blocks of three to five so that the interchange center for each Service A circuit will receive those FD's scheduled for transmission on that Service A area circuit. Each area circuit will receive the eight to twelve blocks that will best meet the needs of subscribers on that circuit, as shown in Exhibit 2. Further, if the need is demonstrated, additional blocks may be scheduled on the supplementary Service A circuits.

The Service A circuit schedules are shown in Exhibit 2.

5. Outlook:

- a. Before June 30, 1965, it is planned that NMC will prepare and transmit forecasts (wind and temperature) for 30, 35 and 40 thousand feet. These will be transmitted on ADIS and probably on the supplementary Service A circuits. More details will be supplied later. It is likely that congestion on the Service A area circuits will require that the 25-thousand foot level be transmitted with the upper levels and removed from the lower-level wind grouping. This circuit loading may require the 25-thousand foot level be dropped from the lower-level group even before transmission of the higher levels is inaugurated.
- b. If the 25,000-foot level is taken from the lower-level issuance, temperatures will be appended to the 7,000-foot wind group.
- c. Manuscript maps similar to the observed winds-aloft charts are being prepared which may be used for spotting wind and

temperature forecasts. These maps are of the scale 1:25,000,000, four to a sheet, (similar to W10) and contain FD locations only. This map number is W20 and may be obtained by memorandum request to your Regional Office.

- d. FD's will be transmitted on facsimile when resources and fax schedules will permit.
6. Amendments to the NMC FD's should not be issued on Service A by FAWS offices; however, forecast adjustments may be made for briefing or other local use when determined necessary. (See Manual Chapter III-B-25.)

Master List of FD's, (94), for ADIS Transmissions

MLT -- Millinocket, Maine	HAR -- Harrisburg, Pa.
BOS -- Boston, Massachusetts	ZZV -- Zanesville, Ohio
JKF -- New York, New York	IND -- Indianapolis, Indiana
RIC -- Richmond, Virginia	STL -- St. Louis, Missouri
HAT -- Hatteras, North Carolina	MKC -- Kansas City, Missouri
ILM -- Wilmington, North Carolina	ICT -- Wichita, Kansas
SSI -- Brunswick, Georgia	DDC -- Dodge City, Kansas
ORL -- Orlando, Florida	TAD -- Trinidad, Colorado
MIA -- Miami, Florida	FMN -- Farmington, New Mexico
	MLF -- Milford, Utah
APN -- Alpena, Michigan	LAS -- Las Vegas, Nevada
MQT -- Marquette, Michigan	NID -- China Lake, Calif.
INL -- International Falls, Minn.	SBA -- Santa Barbara, Calif.
GFK -- Grand Forks, North Dakota	
BIS -- Bismarck, North Dakota	BLF -- Bluefield, West Va.
MLS -- Miles City, Montana	LEX -- Lexington, Kentucky
GGW -- Glasgow, Montana	BNA -- Nashville, Tennessee
GTF -- Great Falls, Montana	DYR -- Dyersburg, Tennessee
DLN -- Dillon, Montana	HRO -- Harrison, Arkansas
FCA -- Kalispell, Montana	TUL -- Tulsa, Oklahoma
GEG -- Spokane, Washington	HBR -- Hobart, Oklahoma
SEA -- Seattle, Washington	LBB -- Lubbock, Texas
PDX -- Portland, Oregon	TCC -- Tucumcari, New Mexico
OTH -- North Bend, Oregon	ABQ -- Albuquerque, New Mexico
RBL -- Red Bluff, California	FLG -- Flagstaff, Arizona
	BLH -- Blythe, California
GRB -- Green Bay, Wisconsin	SAN -- San Diego, California
EAU -- Eau Claire, Wisconsin	
RWF -- Redwood Falls, Minn.	RDU -- Raleigh, North Carolina
PIR -- Pierre, South Dakota	CAE -- Columbia, South Carolina
CDR -- Chadron, Nebraska	ATL -- Atlanta, Georgia
WRL -- Worland, Wyoming	TCL -- Tuscaloosa, Alabama
RWL -- Rawlins, Wyoming	MLU -- Monroe, Louisiana
PIH -- Pocatello, Idaho	TYR -- Tyler, Texas
BOI -- Boise, Idaho	GSW -- Fort Worth, Texas
BNO -- Burns, Oregon	SJT -- San Angelo, Texas
	MRF -- Marfa, Texas
BTV -- Burlington, Vermont	ELP -- El Paso, Texas
ALB -- Albany, New York	TUS -- Tucson, Arizona
ROC -- Rochester, New York	
DTW -- Detroit, Michigan	TLH -- Tallahassee, Florida
MDW -- Chicago, Illinois	MOB -- Mobile, Alabama
DBQ -- Dubuque, Iowa	BTR -- Baton Rouge, Louisiana
DSM -- Des Moines, Iowa	HOU -- Houston, Texas
GRI -- Grand Island, Nebraska	VCT -- Victoria, Texas
GLD -- Goodland, Kansas	BRO -- Brownsville, Texas
DEN -- Denver, Colorado	COT -- Cotulla, Texas
GJT -- Grand Junction, Colorado	
SIC -- Salt Lake City, Utah	
EKO -- Elko, Nevada	
RNO -- Reno, Nevada	
SFO -- San Francisco, Calif.	
FAT -- Fresno, California	

FD List for Each Service A Circuit

Service A teletypewriter circuit

8021       MLT BOS JFK RIC       HAT ILM SSI ORL MIA               APN MQT INL  
 GRB EAU RWF       BTV ALB ROC DTW MDW       HAR ZZV IND STL       BLF LEX  
 BNA DYR       RDU CAE ATL TCL

8022       MLT BOS JFK RIC       HAT ILM SSI ORL MIA               APN MQT INL  
 GRB EAU RWF       BTV ALB ROC DTW MDW       DBQ DSM GRI GLD       HAR ZZV  
 IND STL       BLF LEX BNA DYR       RDU CAE ATL TCL

8023       MLT BOS JFK RIC       HAT ILM SSI ORL MIA               APN MQT INL  
 GRB EAU RWF       BTV ALB ROC DTW MDW       DBQ DSM GRI GLD       HAR ZZV  
 IND STL       BLF LEX BNA DYR       HRO TUL HBR LBB       RDU CAE ATL TCL  
 MLU TYR GSW SJT       TLH MOB BTR HOU

8024       MLT BOS JFK RIC       HAT ILM SSI ORL MIA               BTV ALB ROC DTW  
 MDW       HAR ZZV IND STL       BLF LEX BNA DYR       HRO TUL HBR LBB  
 RDU CAE ATL TCL       MLU TYR GSW SJT       TLH MOB BTR HOU

8025       HAT ILM SSI ORL MIA               ALP MQT INL       GRB EAU RWF       BTV  
 ALB ROC DTW MDW       DBQ DSM GRI GLD       HAR ZZV IND STL       MKC ICT  
 DDC TAD       BLF LEX BNA DYR       HRO TUL HBR LBB       RDU CAE ATL TCL  
 MLU TYR GSW SJT       TLH MOB BTR HOU

8026       MLT BOS JFK RIC       APN MQT INL       GFK BIS MLS GGW       GRB EAU  
 RWF       PIR CDR WRL RWL       BTV ALB ROC DTW MDW       DBQ DSM GRI GLD  
 HAR ZZV IND STL       MKC ICT DDC TAD       BLF LEX BNA DYR       HRO  
 TUL HBR LBB

8027       APN MQT INL       GRB EAU RWF       PIR CDR WRL RWL       BTV ALB ROC  
 DTW MDW       DBQ DSM GRI GLD       HAR ZZV IND STL       MKC ICT DDC TAD  
 BLF LEX BNA DYR       HRO TUL HBR LBB       RDU CAE ATL TCL       MLU  
 TYR GSW SJT       TLH MOB BTR HOU

FD List for Each Service A Circuit (cont.)

8028 HAT ILM SSI ORL MIA BTV ALB ROC DTW MDW DBQ DSM GRI  
 GLD HAR ZZV IND STL MKC ICT DDC TAD BLF LEX BNA DYR  
 HRO TUL HBR LBB RDU CAE ATL TCL MLU TYR GSW SJT MRF ELP  
 TUS TLH MOB BTR HOU VCT BRO COT

8029 DBQ DSM GRI GLD DEN GJT SLC MKC ICT DDC TAD FMN MLF  
 LAS NID SBA BLF LEX BNA DYR HRO TUL HBR LBB TCC ABQ  
 FLG BLH SAN RDU CAE ATL TCL MLU TYR GSW SJT MRF ELP  
 TUS TLH MOB BTR HOU VCT BRO COT

8030 DBQ DSM GRI GLD DEN GJT SLC HAR ZZV IND STL MKC ICT  
 DDC TAD FMN MLF LAS NID SBA BLF LEX BNA DYR HRO TUL  
 HBR LBB TCC ABQ FLG BLH SAN MLU TYR GSW SJT MRF ELP  
 TUS TLH MOB BTR HOU VCT BRO COT

8031 APN MQT INL GFK BIS MLS GGW GTF DLN FCA GEG GRB EAU  
 RWF PIR CDR WRL RWL BTV ALB ROC DTW MDW DBQ DSM GRI GLD  
 DEN GJT SLC HAR ZZV IND STL MKC ICT DDC TAD FMN MLF  
 LAS NID SBA HRO TUL HBR LBB

8032 GFK BIS MLS GGW GTF DLN FCA GEG SEA PDX OTH RBL  
 PIR CDR WRL RWL PIH BOI BNO DBQ DSM GRI GLD DEN GJT  
 SLC EKO RNO SFO FAT MKC ICT DDC TAD FMN MLF LAS NID  
 SBA TCC ABQ FLG BLH SAN

8033 GTF DLN FCA GEG SEA PDX OTH RBL PIR CDR WRL RWL  
 PIH BOI BNO DBQ DSM GRI GLD DEN GJT SLC EKO RNO SFO  
 FAT MKC ICT DDC TAD FMN MLF LAS NID SBA HRO TUL  
 HBR LBB TCC ABQ FLG BLH SAN MRF ELP TUS

8034 GFK BIS MLS GGW GTF DLN FCA GEG SEA PDX OTH RBL  
 PIR CDR WRL RWL PIH BOI BNO DEN GJT SLC EKO RNO SFO  
 FAT FMN MLF LAS NID SBA TCC ABQ FLG BLH SAN  
 MRF ELP TUS

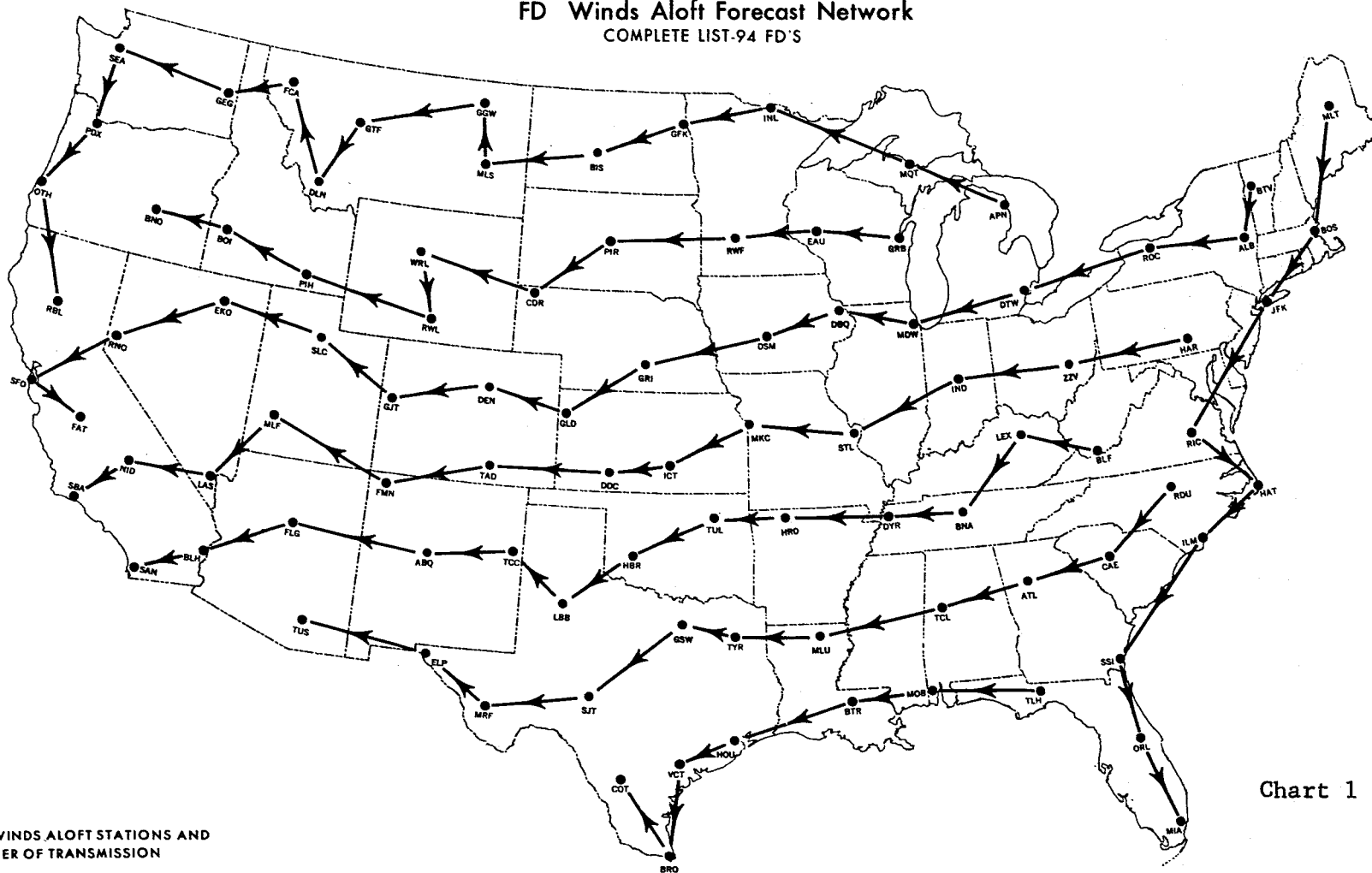
FD List for Each Service A Circuit (cont.)

8035      GTF DLN FCA GEG      SEA PDX OTH RBL      PIR CDR WRL RWL  
PIH BOI BNO      DEN GJT SLC      EKO RNO SFO FAT      MKC ICT  
DDC TAD      FMN MLF LAS NID SBA      TCC ABQ FLG BLH SAN  
MRF ELP TUS



# FD Winds Aloft Forecast Network

COMPLETE LIST-94 FD'S

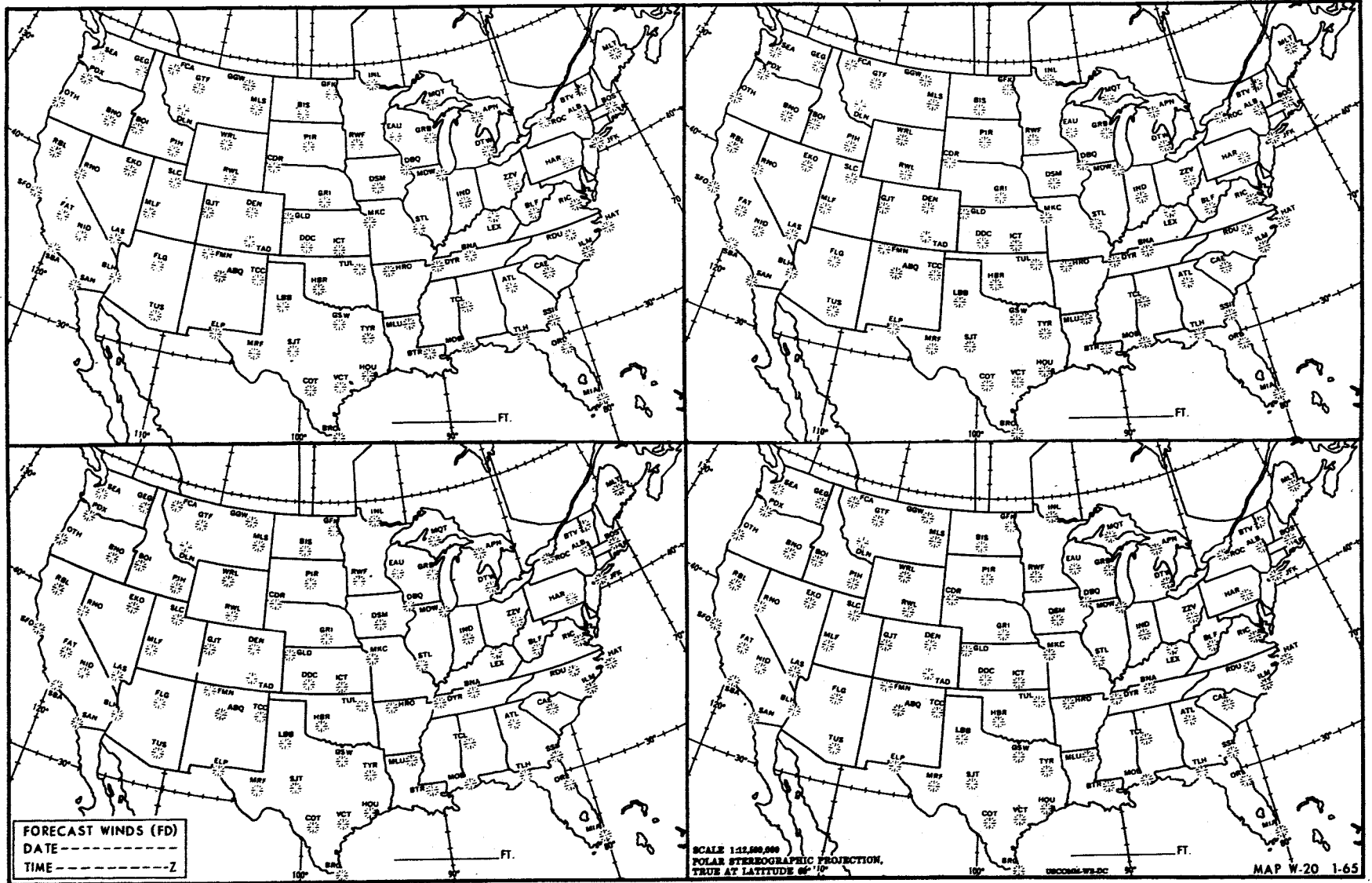


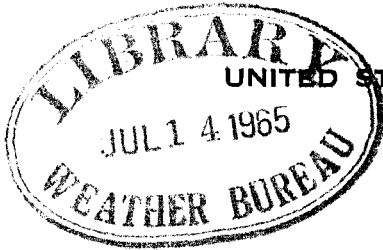
FD WINDS ALOFT STATIONS AND  
ORDER OF TRANSMISSION

U. S. Department of Commerce  
Weather Bureau

Chart 1

February 24, 1965





UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON

July 6, 1965

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

ADDENDUM NO. 1 to AMENDMENT NO. 1 to CIRCULAR LETTER NO. 2-65

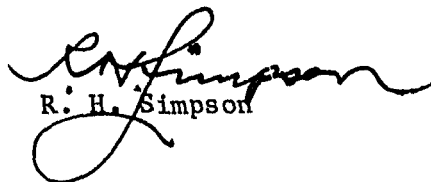
MS-6.1

TO: All First Order Stations  
FROM: Deputy Director for Operations, ONMS  
SUBJECT: Manual Override of Machine Prepared Upper Wind Forecasts

Amendment No. 1 to Circular Letter No. 2-65 dated May 12, 1965 directed that records of all amendments to the FD upper wind and temperature forecasts together with the original FD forecast and verifying winds and temperatures be maintained and reported monthly. Verifying winds and temperatures were not defined, however. The definition is provided in this Addendum.

Numerical FD upper wind and temperature forecasts are made for 9 and 15 hours after base map time and are presumed to cover the 6-hour period 3-hours on either side of these valid times (09Z for period 06Z to 12Z, 15Z for period 12Z to 18Z, etc.) Observed winds are available for the beginning and/or end of the 6-hour forecast period at pibal and raob stations and temperatures at the beginning or end of the period at raob stations.

For objective comparison of amendments with the numerical FD forecasts only observed winds and temperatures at FD stations where raobs or pibals are taken should be included in the monthly report. The data reported should be that nearest to the valid time of the forecast (18Z or 00Z for the 21Z forecast, etc.) as available. Where winds are observed four times daily, the observations spanning the valid times (06Z and 12Z for the 09Z forecast, etc.) should be reported. Subjective estimates of winds and temperatures at FD stations where no observed winds and/or temperatures are available need not be reported.

  
R. H. Simpson

FILE: 652.1  
x630

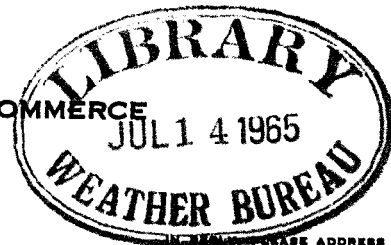
Addendum No. 1 to  
Amendment No. 1 -CL 2-65

(Manual Override of Machine Prepared Upper Wind Forecasts) WASHINGTON, D.C.

7-6-65

UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON

JPW  
6/2 May 12, 1965



MAIL ROOM ADDRESS  
CHIEF, U. S. WEATHER BUREAU  
WASHINGTON 25, D. C.  
AND REFER TO  
MS-6.1

FILE: 652.1  
x630

Amendment No. 1  
CL 2-65

(Manual Override of Machine Prepared Upper Wind Forecasts)

WASHINGTON, D.C.  
5-12-65

AMENDMENT NO. 1 to CIRCULAR LETTER NO. 2-65

TO: All First Order Stations  
FROM: Deputy Director for Operations, ONMS  
SUBJECT: Manual Override of Machine Prepared Upper Wind Forecasts

Circular Letter No. 2-65 dated February 8, 1965, states that amendments to the NMC FDs should not be issued on Service A by FAWS offices; however, forecast adjustments may be made for briefing or other local use when deemed necessary. This authority is used in the preparation of TWEB scripts which are distributed over Service B to many of the Flight Service Stations. As a result of this practice, FSS briefers and many pilots occasionally may receive conflicting wind forecasts.

To minimize these difficulties and to insure that the official Weather Bureau forecast of winds aloft represents the best possible product, the following program is to be implemented on receipt of this Circular Letter.

1. FAWS offices are authorized to prepare amendments to the NMC FD winds aloft forecasts for transmission on Service A teletype. In practice, each FAWS office should scan the portions of the FD forecast applicable to its area of responsibility and decide whether to let them stand or not. Amendments should be issued as soon as practicable within the first hour after receipt of the FDs. A guide as to what constitutes a significant change necessitating amendment is described below.
2. Records should be maintained of all amendments issued together with the original FD forecasts and the verifying winds and temperatures. Monthly reports of these data should be compiled and submitted to ONMS for a continuing quality check on the FD and amendment programs.

Chapter III-B-2012, Volume III of the Weather Bureau lists the following criteria for the expected changes which would justify amendment of the winds aloft forecast:

Wind direction

- 45 degrees with wind speeds less than 25 knots.
- 30 degrees with wind speeds above 25 knots.

Wind speed

10 knots at wind speeds less than 25 knots.  
 15 knots at wind speeds above 25 knots.

Temperature (when included)

Any change of 5 degrees C. or more, except 3 degrees C. or more at the 5000' level.

These criteria were in effect, however, before the NMC FD program was instituted.

ICAO-Procedures for Air Navigation Services-Meteorology, Table II states the criteria requiring amendment as:

Change in direction of 30 degrees or more, providing wind speed is 30 knots or more before or after the change.

Change in speed of 20 knots or more.

Change of more than 5 degrees C. in temperature.

For purposes of the FD upper winds amendment program, the two sets of criteria have been combined into the following guide for deciding when expected departures in wind conditions and temperatures aloft from the FD forecast are of sufficient magnitude to warrant issuance of an amended forecast.

Wind

FD forecast speed less than 30 knots:

Direction - expected departures of 45 degrees or more from FD forecast direction.

Speed - expected departures of 10 knots or more from FD forecast speed.

FD forecast speed 30 knots or more:

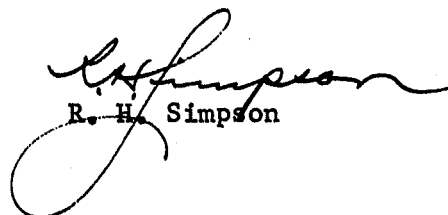
Direction - expected departures of 30 degrees or more from FD forecast direction.

Speed - expected departures of 20 knots or more from FD forecast speed.

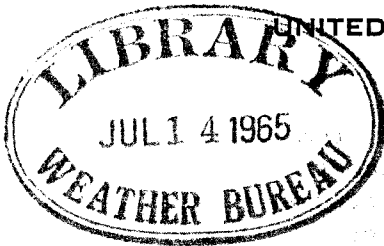
Temperature

Expected departures of 5 degrees C. or more (except 3 degrees C. or more at 5000 ft.) from FD forecast temperature.

Verification studies of FD wind and temperature forecasts indicate that the program is capable of producing forecasts with a very high percentage having average vector errors below the implied range of vector errors of the criteria for most forecast speeds. The studies will be included in a forthcoming Note to Forecasters describing the FD program. These suggest that, on the average, the FD upper wind forecasts and the improved temperature forecasts produced by a model initiated on May 5, 1965 will be usually quite adequate and amendment will be necessary only in the relatively few cases when gross errors occur.



R. H. Simpson



UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON

July 1, 1965

IN REPLY, PLEASE ADDRESS  
CHIEF, U. S. WEATHER BUREAU  
WASHINGTON D. C. 20238  
AND REFER TO  
MS-6.23

AMENDMENT NO. 2 to CIRCULAR LETTER NO. 2-65

TO : All First Order Stations  
Regional Directors, WBRO's I, II, III, IV, V and VI

FROM : Director, National Meteorological Services

SUBJECT : FD Program in the 48 Contiguous States; Extension of  
Program to 39,000 Feet

REFERENCE: 1. Circular Letter No. 2-65 dated February 8, 1965  
2. Amendment No. 1 to Circular Letter No. 2-65 dated May 12, 1965  
3. GENOT 5/34 dated May 17, 1965, as corrected

Circular Letter No. 2-65 refers to Weather Bureau plans to extend the FD program to cover 30, 35 and 40 thousand feet. These plans, slightly revised, are now firm and explained below.

Effective June 30, 1965, NMC will prepare winds-aloft and temperature forecasts for 30, 34 and 39 thousand feet. These forecasts will be issued twice daily (based on 0000Z and 1200Z data) and cover an 18-hour period, in three six-hour sections, beginning six hours after the basic observation time.

These forecasts will be labelled FD-2 and will be entered on the high-speed circuit immediately following the appropriate FD, at approximately 0545Z and 1745Z. Subsequent transmission will be made as soon as possible to local (not area) Service A circuits.

Since these forecasts will be prepared for the constant pressure levels of 300, 250 and 200 millibars the levels will be labelled 30, 34 and 39 thousand feet. Thus, these levels will indicate pressure altitude rather than actual altitude.

The FD-2 will contain forecasts for the same 94 stations used in the FD program. (See Exhibit 1 and Chart 1 of CL 2-65.) This list of stations will be broken down, by areas, into eight groups, thereby enabling users to receive FD-2's for their area(s) of concern. Group contents and transmission details are given in "Service A Weather Schedules".

The provisions of Amendment No. 1 to Circular Letter No. 2-65, authorizing FAWS offices to amend FD forecasts, also apply to the FD-2 forecasts. However, the speed criteria established for FD forecast speeds of 30 knots or more (on page 2 of Amendment No. 1) are amended to read:

FILE: 652.1  
x630  
Amendment No. 2  
CL 2-65  
(FD Program in the 48 Contiguous States; Extension of Program to 39,000 Feet)  
WASHINGTON, D.C.  
7-1-65

"FD forecast speed 30 knots or more:

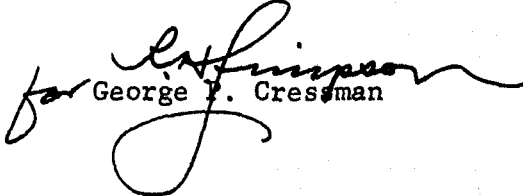
Direction - (no change)

Speed - expected departure of 20 knots or more from FD forecast speed, except 30 knots for FD forecast speed between 70 and 100 knots, 40 knots for forecast speed between 100 and 135 knots and 50 knots for forecast speed greater than 135 knots."

These criteria will apply to both FD and FD-2 amendments.

FD-2 amendments will be transmitted on Service A high speed and local circuits only.

Weather offices and users are encouraged to send us (attention: MS-6.23) their comments on the effectiveness of this and other phases of the FD program.

  
for George P. Cressman

USCOMM-WB-DC





UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON

May 20, 1965

IN REPLY, PLEASE ADDRESS  
CHIEF, U. S. WEATHER BUREAU  
WASHINGTON 25, D. C.  
AND REFER TO  
MS-6.23

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CIRCULAR LETTER NO. 3-65

TO : All First Order Stations  
Regional Directors, WBRO's I, II, III, IV, V and VI

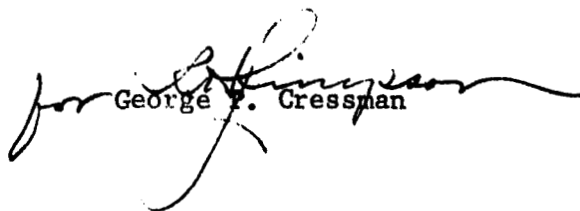
FROM : Director, NMS

SUBJECT : Substitution of term "AIRMET" for "Advisory for Light Aircraft"  
in In-Flight Weather Safety Service

REFERENCE: Manual Chapter III-B-23, "In-Flight Weather Safety Service"

Effective with issuances beginning 00Z, July 1, 1965, the term "AIRMET", for "Airmen's Meteorological Information", will replace "Advisory for Light Aircraft" in the In-Flight Weather Safety Service.

Please make pen and ink changes in Manual Chapter III-B-23 to effect this substitution. The next reprint of this chapter, incorporating additional changes, is scheduled for issue after July 1.

  
George F. Cressman

FILE: 652.11 CL 3-65 (Substitution of term "AIRMET" for "Advisory for Light Aircraft" in In-Flight Weather Safety Service)

WASHINGTON, D.C.  
5-20-65

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UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
September 24, 1965

IN REPLY

REFER TO  
MS-6.1

TO: All Regional Directors  
All First Order Stations

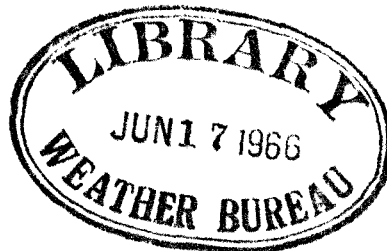
FROM: Director of the Weather Bureau

SUBJECT: Amendment to Circular Letter 5-65

Recently received comments and questions from field offices on the probability forecast program have indicated the desirability of certain changes in the program. These are set forth in the amendment attached to this memorandum.

*George P. Cressman*  
George P. Cressman

Attachment



UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
September 24, 1965

IN REPLY

AMENDMENT 1 to CIRCULAR LETTER 5-65

REFER TO  
MS-6.1

TO: All Regional Directors  
All First Order Stations

FROM: Director of the Weather Bureau

SUBJECT: Use of Probability Statements in Precipitation Forecasts

Line 8 of the first paragraph is changed to read "first three twelve-hour periods covered by the forecast."

In line 12 of page 1, the sentence beginning "Local forecast offices..." should be deleted in its entirety.

On page 2 in line 8 of the third paragraph change the wording to read "III is either the index number or the Service A identifier of the city..."

On page 2 in the last paragraph the first sentence should be changed to read "Expressions of probability will not be used in State forecasts, and they need not be used in Zone forecasts where the areal variation in probability values that will arise would be impossible to handle without complicating the wording of the forecasts."

On page 3 in the first paragraph, line 6, the sentence beginning in this line should be changed to read "The best procedure to follow to avoid ambiguity is to assign the probability to the event of precipitation, not the type of precipitation."

On page 5, section (b) add the number "2" to each of the groups. Change the paragraph to read "This example when decoded provides the information that Chicago, 534, has a probability for precipitation of 20%, 30% and 20% for the three twelve-hour periods, Toledo, 536, has a probability of 10%, 20% and 20% and Cincinnati has probabilities of 30%, 30% and 20% for the three periods."

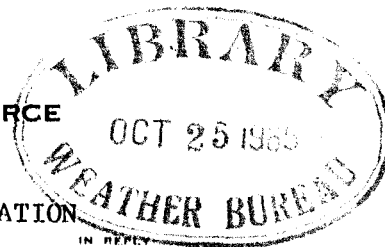
*George P. Cressman*  
George P. Cressman

FILE: 652.2

Amendment 1 -CL 5-65 (Use of Probability Statements in Precipitation Forecasts)

WASHINGTON, D.C.  
9-24-65

UNITED STATES DEPARTMENT OF COMMERCE  
WEATHER BUREAU  
WASHINGTON  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
October 15, 1965



FILE: 650.1

CI 6-65

(Verification Procedures)

WASHINGTON, D.C.  
10-15-65

CIRCULAR LETTER 6 (3)

MS-6.1

TO: All Directors  
All First Order Stations

FROM: Associate Director of the Weather Bureau (MO)

SUBJECT: Verification Procedures


Pending the revision of appropriate chapters in the Weather Bureau Manual, the following verification procedures will be in effect after October 1, 1965.

Local offices will continue with their present verification system including punched cards which are sent into the Central Office for processing and printout. Selected local offices upon notification by their respective Regional Office will punch out an additional set of cards showing the FP forecast for their station, as interpreted from the FP. These will be processed and printed out similar to the local forecasts. An additional punch on the FP cards will be necessary to identify the source of the forecasts. This will consist of an overpunch x in the first column of the card.

FP offices will, upon notification by their Regional Office, begin verifying NMC forecasts for selected stations in their area of responsibility in addition to their own forecasts for these same stations. NMC forecasts will be based on interpretation of NMC packages A and B on the Forecast Center Facsimile Network. A form for this purpose will be supplied to all offices concerned. Until these forms are in the hands of the FP offices, present verification procedures will be used.

Precipitation probabilities will be included in verification forms when the office has been authorized to issue probability forecasts to the public by their respective Regional Office. Until then, probability forecasts will be verified separately, as instructed by the Regional Office. Details of punching these probability forecasts on local verification cards will be furnished later.

Consideration is being given to placing the FP/NMC verifications on punched cards for machine processing and printout. Until a final decision is reached on this proposal, verifications and computations will be made at the FP offices, unless otherwise instructed by the Regional Office. Copies of the monthly summaries should be sent to both the Regional Office and the Central Office (Attn.: MS-6.1).

  
R. H. Simpson