

**CHANGE**

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

**JO 7110.10U  
CHG 1**

**Air Traffic Organization Policy**

**Effective Date:  
August 26, 2010**

**SUBJ:** Flight Services

---

- 1. Purpose of This Change.** This change transmits revised pages to Federal Aviation Administration Order JO 7110.10U, Flight Services, and the Briefing Guide.
- 2. Audience.** This change applies to select offices in Washington headquarters, service area offices, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, and to all air traffic field facilities, international aviation field offices, and the interested aviation public.
- 3. Where Can I Find This Change?** This change is available on the FAA Web site at [http://faa.gov/air\\_traffic/publications](http://faa.gov/air_traffic/publications) and [http://employees.faa.gov/tools\\_resources/orders\\_notices/](http://employees.faa.gov/tools_resources/orders_notices/).
- 4. Explanation of Policy Change.** See the Explanation of Changes attachment which has editorial corrections and changes submitted through normal procedures. The Briefing Guide lists only new or modified material, along with background.
- 5. Distribution.** This change is distributed to select offices in Washington headquarters, service area offices, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, and to all air traffic field facilities, international aviation field offices, and the interested aviation public..
- 6. Disposition of Transmittal.** Retain this transmittal until superseded by a new basic order.
- 7. Page Control Chart.** See the page control chart attachment.



Nancy B. Kalinowski  
Vice President, System Operations Services  
Air Traffic Organization

Date: 6-4-10

---

Distribution: ZAT-793; ZAT-464;  
ZAT-423 (External)

Initiated By: AJR-0  
Vice President, System Operations Services



## Flight Services Explanation of Changes

**Direct questions through appropriate facility/service center office staff  
to the Office of Primary Interest (OPI)**

**a. 1-1-8. RECOMMENDATION FOR PROCEDURAL CHANGES;**  
**1-2-1. WORD MEANINGS;**  
**1-2-4. ABBREVIATIONS;**  
**1-2-7. SYSTEM INSTRUCTIONS;**  
**1-3-2. DUTY PRIORITY;**  
**1-3-3. DUTY FAMILIARIZATION AND TRANSFER OF POSITION RESPONSIBILITY;**  
**3-1-3. PREFLIGHT BRIEFING DISPLAY;**  
**3-1-4. WEATHER DISPLAY PRODUCTS;**  
**3-1-5. FORECASTS, WARNINGS, & ADVISORIES;**  
**3-1-6. UNAVAILABILITY OF DATA;**  
**3-1-8. RECORDING PILOT BRIEFING;**  
**3-2-1. CONDUCT OF STANDARD BRIEFING;**  
**3-2-2. CONDUCT OF APPREVIATED BRIEFING;**  
**3-2-3. CONDUCT OF OUTLOOK BRIEFING;**  
**4-1-2. ENROUTE FLIGHT ADVISORY SERVICE (EFAS/FLIGHT WATCH);**  
**4-1-4. INFLIGHT WEATHER BRIEFING;**  
**4-2-1. TYPES OF DATA RECORDED;**  
**4-2-2. METHODS OF RECORDING DATA;**  
**4-2-3. IFR/VFR/DVFR FLIGHT PLAN RECORDING;**  
**4-2-4. PILOT WEATHER REPORTS;**  
**4-2-8. AIRCRAFT CONTACTS;**  
**4-3-5. ROUTINE RADIO CONTACTS;**  
**4-3-7. ATC CLEARANCES, ADVISORIES, OR REQUESTS;**  
**4-4-1. GENERAL;**  
**4-4-2. LAA/RAIS/RAA ELEMENTS AND PHRASEOLOGY;**  
**4-6-2. POSITION RESPONSIBILITIES;**  
**4-6-4. FREQUENCIES;**  
**4-6-5. NWS SUPPORT TO EFAS;**  
**4-6-6. PILOT WEATHER REPORTS;**  
**4-6-8. INTERRUPTIONS TO SERVICE;**  
**5-1-1. EMERGENCY DETERMINATION;**  
**5-1-2. RESPONSIBILITY;**  
**5-1-3. OBTAINING INFORMATION;**  
**5-2-2. FREQUENCY CHANGES;**  
**6-1-2. FLIGHT PLANS;**  
**6-1-3. FLIGHT PLAN DATA;**  
**6-2-2. OUTBOUNDS DEPARTING FROM**

**OUTSIDE FLIGHT PLAN AREA;**  
**6-2-4. ENTRY OF MILITARY IFR MULTILEG STOPOVER FLIGHT PLAN;**  
**6-2-5. ENTRY OF MILITARY VFR STOPOVER FLIGHT PLAN;**  
**6-4-4. FLIGHT NOTIFICATION MESSAGE;**  
**6-4-7. ACTION BY ADDRESSEES;**  
**7-1-1. GENERAL;**  
**7-1-6. TRANSMISSION OF ATS MESSAGES;**  
**7-1-7. ORIGINATING MESSAGES;**  
**7-1-9. FLIGHT PLAN FORMS AND INSTRUCTIONS;**  
**7-1-13 AIREPS (POSITION REPORTS);**  
**8-1-1. RESPONSIBILITY FOR SAR ACTION;**  
**8-2-1. INITIAL ACTION/QALQ;**  
**8-2-2. ACTION BY DEPARTING STATION ON RECEIPT OF QALQ;**  
**8-2-3. CANCELLATION OF THE QALQ;**  
**8-3-1. INREQ;**  
**9-1-2. SCHEDULED TRANSMISSION TIMES;**  
**9-1-3. DISTRIBUTION;**  
**9-2-15. PIREP FORMAT;**  
**9-4-1. GENERAL;**  
**9-4-2. LEVELS FORECAST;**  
**9-4-3. SCHEDULES;**  
**9-4-4. DISTRIBUTION;**  
**9-5-1. GENERAL;**  
**9-6-1. GENERAL;**  
**9-10-2. CRITERIA;**  
**10-2-4. GROUP CODES;**  
**10-1-5. MESSAGE FORMATS;**  
**10-1-6. WMSCR NEGATIVE RESPONSE MESSAGES;**  
**12-1-4. MESSAGE INITIATION;**  
**13-1-8. WEATHER PHRASEOLOGY;**  
**13-1-12. WINDS AND TEMPERATURES ALOFT FORECAST (FD)**

Since 2007, flight services in the contiguous United States, Hawaii, and Puerto Rico have transitioned to a new operational system and concept of operations. This change deletes references to specific operational systems and makes editorial changes for clarification.

**b. 6-9-1. SECURITY NOTICE (SECNOT);  
6-9-2. ACTION UPON RECEIPT OF SECURITY  
NOTICE;  
6-9-3. CANCELLATION OF SECURITY NOTICE**

This change creates Chapter 6, Section 9, Security Notice (SECNOT). New paragraphs are added to provide procedures for handling SECNOTs. This change cancels and incorporates N JO 7110.513, Security Notice (SECNOT), effective February 8, 2010.

**c.** Additional editorial/format changes were made where necessary. Revision bars were not used because of the insignificant nature of these changes.

## PAGE CONTROL CHART

REMOVE PAGES	DATED	INSERT PAGES	DATED
Table of Contents i through x	2/11/10	Table of Contents i through x	8/26/10
1-1-1	2/11/10	1-1-1	8/26/10
1-1-2	2/11/10	1-1-2	2/11/10
1-2-1 and 1-2-2	2/11/10	1-2-1 and 1-2-2	8/26/10
1-3-1 through 1-3-3	2/11/10	1-3-1 through 1-3-3	8/26/10
3-1-1 through 3-1-3	2/11/08	3-1-1 through 3-1-3	8/26/10
3-2-1 through 3-2-3	2/11/08	3-2-1 through 3-2-3	8/26/10
4-1-1 through 4-1-2	2/11/08	4-1-1 through 4-1-2	8/26/10
4-2-3	2/11/10	4-2-3	8/26/10
4-2-4	2/11/10	4-2-4	2/11/10
4-2-5 and 4-2-6	2/11/10	4-2-5 and 4-2-6	8/26/10
4-3-1	2/11/10	4-3-1	2/11/10
4-3-2 through 4-3-4	2/11/10	4-3-2 through 4-3-4	8/26/10
4-4-1 through 4-4-4	2/11/10	4-4-1 through 4-4-4	8/26/10
4-6-1 through 4-6-3	2/11/10	4-6-1 through 4-6-3	8/26/10
5-1-1	2/11/10	5-1-1	8/26/10
5-1-2	2/11/10	5-1-2	2/11/10
5-2-1	2/11/10	5-2-1	8/26/10
5-2-2	2/11/10	5-2-2	2/11/10
6-1-1 and 6-1-2	2/11/10	6-1-1 and 6-1-2	8/26/10
6-2-3 and 6-2-4	2/11/10	6-2-3 and 6-2-4	8/26/10
6-4-1 through 6-4-7	2/11/10	6-4-1 through 6-4-7	8/26/10
.....	-----	6-9-1	8/26/10
7-1-1 through 7-1-9	2/11/10	7-1-1 through 7-1-9	8/26/10
8-1-1	2/11/10	8-1-1	8/26/10
8-2-1 and 8-2-2	2/11/10	8-2-1 and 8-2-2	8/26/10
8-3-1 and 8-3-2	2/11/10	8-3-1 and 8-3-2	8/26/10
9-1-1	2/11/10	9-1-1	8/26/10
9-2-3	2/11/10	9-2-3	2/11/10
9-2-4 through 9-2-7	2/11/10	9-2-4 through 9-2-7	8/26/10
9-4-1	2/11/10	9-4-1	8/26/10
9-5-1	2/11/10	9-5-1	8/26/10
9-6-1	2/11/10	9-6-1	8/26/10
9-10-1 and 9-10-2	2/11/10	9-10-1 and 9-10-2	8/26/10
10-1-1	2/11/10	10-1-1	2/11/10
10-1-2 and 10-1-3	2/11/10	10-1-2 and 10-1-3	8/26/10
12-1-1 and 12-1-2	2/11/10	12-1-1 and 12-1-2	8/26/10
13-1-1	2/11/10	13-1-1	2/11/10
13-1-2	2/11/10	13-1-2	8/26/10
13-1-11	2/11/10	13-1-11	8/26/10
13-1-12	2/11/10	13-1-11	2/11/10

Appendix A-1 through A-18 .....	2/11/10	Appendix A-1 through A-18 .....	8/26/10
Appendix B-1 .....	2/11/10	Appendix B-1 .....	8/26/10
Index 1-1 and 1-2 .....	2/11/10	Index 1-1 and 1-2 .....	8/26/10

# Table of Contents

## Chapter 1. General

### Section 1. Introduction

<b>Paragraph</b>	<b>Page</b>
1-1-1. PURPOSE OF THIS ORDER .....	1-1-1
1-1-2. AUDIENCE .....	1-1-1
1-1-3. WHERE TO FIND THIS ORDER .....	1-1-1
1-1-4. WHAT THIS ORDER CANCELS .....	1-1-1
1-1-5. EXPLANATION OF CHANGES .....	1-1-1
1-1-6. SUBMISSION CUTOFF AND EFFECTIVE DATES .....	1-1-1
1-1-7. DELIVERY DATES .....	1-1-1
1-1-8. RECOMMENDATION FOR PROCEDURAL CHANGES .....	1-1-1
1-1-9. SUBSCRIPTION INFORMATION .....	1-1-1
1-1-10. DISTRIBUTION .....	1-1-2

### Section 2. Terms of Reference

1-2-1. WORD MEANINGS .....	1-2-1
1-2-2. NOTES .....	1-2-1
1-2-3. JO 7110.10 CHANGES .....	1-2-1
1-2-4. ABBREVIATIONS .....	1-2-1
1-2-5. EXAMPLES .....	1-2-1
1-2-6. PHRASEOLOGY .....	1-2-1
1-2-7. SYSTEM INSTRUCTIONS .....	1-2-1

### Section 3. Responsibility .....

**1-3-1**

1-3-1. PROCEDURAL APPLICATIONS .....	1-3-1
1-3-2. DUTY PRIORITY .....	1-3-1
1-3-3. DUTY FAMILIARIZATION AND TRANSFER OF POSITION RESPONSIBILITY .....	1-3-1

## Chapter 2. Broadcast Procedures

### Section 1. General

2-1-1. TYPES OF BROADCASTS .....	2-1-1
2-1-2. SPEECH RATE .....	2-1-1
2-1-3. INTERRUPTION OF BROADCAST .....	2-1-1
2-1-4. REDUCING RECORDED WEATHER INFORMATION SERVICES .....	2-1-1
2-1-5. ANNOUNCING MISSING ITEMS .....	2-1-1
2-1-6. WEATHER REPORT PHRASEOLOGY .....	2-1-1
2-1-7. CURRENT DATA .....	2-1-5

### Section 2. Transcribed Weather Broadcasts (TWEB) (Alaska Only)

2-2-1. GENERAL .....	2-2-1
2-2-2. CONTENT .....	2-2-1
2-2-3. TESTING TWEB EQUIPMENT .....	2-2-2
2-2-4. SERVICE MAY BE SUSPENDED .....	2-2-2
2-2-5. MONITORING .....	2-2-2

**Section 3. Telephone Information Briefing Service (TIBS) for Automated Flight Service Stations (AFSS)**

<b>Paragraph</b>	<b>Page</b>
2-3-1. GENERAL .....	2-3-1
2-3-2. AREA/ROUTE BRIEFING PROCEDURES .....	2-3-1
2-3-3. MONITORING .....	2-3-2

**Section 4. Hazardous Inflight Weather Advisory Service (HIWAS)**

2-4-1. GENERAL .....	2-4-1
2-4-2. PRIORITY .....	2-4-1
2-4-3. CONTENT .....	2-4-1
2-4-4. BROADCAST PROCEDURES .....	2-4-1
2-4-5. SUSPENSION .....	2-4-2

**Chapter 3. Pilot Briefing**

**Section 1. General**

3-1-1. DEFINITION .....	3-1-1
3-1-2. PREDUTY REQUIREMENTS .....	3-1-1
3-1-3. PREFLIGHT BRIEFING DISPLAY .....	3-1-1
3-1-4. WEATHER DISPLAY PRODUCTS .....	3-1-1
3-1-5. FORECASTS, WARNINGS, AND ADVISORIES .....	3-1-3
3-1-6. UNAVAILABILITY OF DATA .....	3-1-3
3-1-7. TYPE OF BRIEFING TO BE CONDUCTED .....	3-1-3
3-1-8. RECORDING PILOT BRIEFINGS .....	3-1-3

**Section 2. Preflight Pilot Briefing**

3-2-1. CONDUCT OF STANDARD BRIEFING .....	3-2-1
3-2-2. CONDUCT OF ABBREVIATED BRIEFING .....	3-2-2
3-2-3. CONDUCT OF OUTLOOK BRIEFING .....	3-2-3

**Chapter 4. Inflight Services**

**Section 1. General**

4-1-1. INFLIGHT SERVICES .....	4-1-1
4-1-2. EN ROUTE FLIGHT ADVISORY SERVICE (EFAS/FLIGHT WATCH) .....	4-1-1
4-1-3. OPERATIONAL PRIORITY .....	4-1-1
4-1-4. INFLIGHT WEATHER BRIEFING .....	4-1-1
4-1-5. INFLIGHT EQUIPMENT MALFUNCTIONS .....	4-1-1
4-1-6. AIRCRAFT REPORTED NAVAID MALFUNCTIONS .....	4-1-1
4-1-7. NAVAID FLIGHT CHECK .....	4-1-2

**Section 2. Data Recording**

4-2-1. TYPES OF DATA RECORDED .....	4-2-1
4-2-2. METHODS OF RECORDING DATA .....	4-2-1
4-2-3. IFR/VFR/DVFR FLIGHT PLAN RECORDING .....	4-2-2
4-2-4. PILOT WEATHER REPORTS .....	4-2-2
4-2-5. LOGGING AIRCRAFT CONTACTS .....	4-2-2
4-2-6. FLIGHT PROGRESS STRIPS (FAA FORMS 7230-21 AND 7233-5) .....	4-2-3

<b>Paragraph</b>	<b>Page</b>
4-2-7. FLIGHT PROGRESS STRIPS AND ENTRY DATA .....	4-2-3
4-2-8. AIRCRAFT CONTACTS .....	4-2-5
4-2-9. CONTROL SYMBOLOGY .....	4-2-6

### **Section 3. Radio Communications**

4-3-1. FREQUENCY USE .....	4-3-1
4-3-2. AUTHORIZED TRANSMISSIONS .....	4-3-1
4-3-3. RADIO MESSAGE FORMAT .....	4-3-1
4-3-4. ABBREVIATED TRANSMISSION .....	4-3-1
4-3-5. ROUTINE RADIO CONTACTS .....	4-3-2
4-3-6. RADIO COMMUNICATIONS TRANSFER .....	4-3-4
4-3-7. ATC CLEARANCES, ADVISORIES, OR REQUESTS .....	4-3-4
4-3-8. DEPARTURE REPORTS .....	4-3-4
4-3-9. IFR FLIGHT PROGRESS REPORTS .....	4-3-5
4-3-10. ARRIVAL/MISSED APPROACH REPORTS .....	4-3-5
4-3-11. NONDELIVERY OF MESSAGES .....	4-3-5
4-3-12. BROADCAST (BLIND TRANSMISSION) OF MESSAGES .....	4-3-5
4-3-13. PENETRATION OF CLASS A AIRSPACE OR PROHIBITED/RESTRICTED AREA .....	4-3-5

### **Section 4. Airport Advisory Services**

4-4-1. GENERAL .....	4-4-1
4-4-2. LAA/RAIS/RAA ELEMENTS AND PHRASEOLOGY .....	4-4-2
4-4-3. CHARTS .....	4-4-4
4-4-4. AUTHORIZED FREQUENCIES .....	4-4-4
4-4-5. REQUEST FOR LAA/RAIS/RAA AT AIRPORTS WHERE THE SERVICES ARE UNAVAILABLE .....	4-4-4
4-4-6. TRAFFIC CONTROL .....	4-4-5
4-4-7. AIRCRAFT EQUIPMENT CHECKS .....	4-4-5
4-4-8. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) - ALASKA FSSS ONLY	4-4-5

### **Section 5. Special VFR Operation**

4-5-1. AUTHORIZATION .....	4-5-1
4-5-2. REQUESTS FOR SPECIAL VFR CLEARANCE .....	4-5-1
4-5-3. VISIBILITY BELOW 1 MILE .....	4-5-2
4-5-4. PREDESIGNED SPECIAL VFR CLEARANCES .....	4-5-3

### **Section 6. En Route Flight Advisory Service (EFAS)**

4-6-1. GENERAL .....	4-6-1
4-6-2. POSITION RESPONSIBILITIES .....	4-6-1
4-6-3. OPERATING PROCEDURES .....	4-6-1
4-6-4. FREQUENCIES .....	4-6-1
4-6-5. NWS SUPPORT TO EFAS .....	4-6-1
4-6-6. PILOT WEATHER REPORTS .....	4-6-2
4-6-7. GRAPHIC WEATHER DISPLAY .....	4-6-2
4-6-8. INTERRUPTIONS TO SERVICE .....	4-6-3
4-6-9. EMERGENCIES .....	4-6-3

## Chapter 5. Emergency Services

### Section 1. General

<b>Paragraph</b>	<b>Page</b>
5-1-1. EMERGENCY DETERMINATION .....	5-1-1
5-1-2. RESPONSIBILITY .....	5-1-1
5-1-3. OBTAINING INFORMATION .....	5-1-1
5-1-4. COORDINATION .....	5-1-1
5-1-5. PROVIDING ASSISTANCE .....	5-1-1
5-1-6. RECORDING INFORMATION .....	5-1-2
5-1-7. SAFE ALTITUDES FOR ORIENTATIONS .....	5-1-2

### Section 2. Operations

5-2-1. INFORMATION REQUIREMENTS .....	5-2-1
5-2-2. FREQUENCY CHANGES .....	5-2-1
5-2-3. AIRCRAFT ORIENTATION .....	5-2-1
5-2-4. ALTITUDE CHANGE FOR IMPROVED RECEPTION .....	5-2-1
5-2-5. ALERTING CONTROL FACILITY .....	5-2-1
5-2-6. VFR AIRCRAFT IN WEATHER DIFFICULTY .....	5-2-1
5-2-7. AIRCRAFT POSITION PLOTS .....	5-2-2
5-2-8. EMERGENCY LOCATOR TRANSMITTER (ELT) SIGNALS .....	5-2-2
5-2-9. EXPLOSIVE CARGO .....	5-2-2
5-2-10. EXPLOSIVE DETECTION DOG HANDLER TEAMS .....	5-2-2
5-2-11. INFLIGHT EQUIPMENT MALFUNCTIONS .....	5-2-3
5-2-12. NAVY FLEET SUPPORT MISSIONS .....	5-2-3
5-2-13. COUNTRIES IN THE SPECIAL INTEREST FLIGHT PROGRAM .....	5-2-3
5-2-14. MINIMUM FUEL .....	5-2-3
5-2-15. AIRCRAFT BOMB THREATS .....	5-2-3
5-2-16. EMERGENCY SECURITY CONTROL OF AIR TRAFFIC (ESCAT) .....	5-2-5

### Section 3. Direction Finder (DF) Service

5-3-1. ACTIONS REQUIRED .....	5-3-1
5-3-2. VFR DF SERVICE .....	5-3-1
5-3-3. DF FIXING BY NET .....	5-3-2
5-3-4. DF FIXING BY ONE FACILITY .....	5-3-2
5-3-5. EMERGENCY DF APPROACH PROCEDURE .....	5-3-2

### Section 4. ADF/VOR Orientation

5-4-1. ACTIONS REQUIRED .....	5-4-1
5-4-2. ADF ORIENTATION/ADF CROSSFIX .....	5-4-1
5-4-3. VOR ORIENTATION/VOR CROSSFIX .....	5-4-2
5-4-4. GUIDANCE TO AIRPORT .....	5-4-4

## Chapter 6. Flight Data

### Section 1. General

6-1-1. COMMUNICATIONS SERVICE .....	6-1-1
6-1-2. FLIGHT PLANS .....	6-1-1
6-1-3. FLIGHT PLAN DATA .....	6-1-2

<b>Paragraph</b>	<b>Page</b>
6-1-4. PART-TIME FSS CLOSURE ACTION .....	6-1-2
6-1-5. TELEPHONE REQUESTS FOR ATC CLEARANCES .....	6-1-2
<b>Section 2. Flight Plan Proposals</b>	
6-2-1. FLIGHT PLAN RECORDING .....	6-2-1
6-2-2. OUTBOUNDS DEPARTING FROM OUTSIDE FLIGHT PLAN AREA .....	6-2-3
6-2-3. FLIGHT PLANS WITH AREA NAVIGATION (RNAV) ROUTES IN DOMESTIC U.S. AIRSPACE .....	6-2-4
<b>Section 3. IFR Flight Plan Handling</b>	
6-3-1. DOMESTIC IFR FLIGHT PLANS .....	6-3-1
6-3-2. NOTIFYING ARTCC .....	6-3-1
6-3-3. IFR FLIGHT PLAN CONTROL MESSAGES .....	6-3-2
6-3-4. COORDINATE RNAV ROUTES .....	6-3-8
<b>Section 4. Flight Plan Handling</b>	
6-4-1. FLIGHT PLAN ACTIVATION .....	6-4-1
6-4-2. DEPARTURE REPORT MESSAGE .....	6-4-1
6-4-3. ACKNOWLEDGING NUMBERED MESSAGES .....	6-4-1
6-4-4. FLIGHT NOTIFICATION MESSAGE .....	6-4-1
6-4-5. SUSPENDING FLIGHT NOTIFICATION MESSAGES .....	6-4-3
6-4-6. ACKNOWLEDGING FLIGHT NOTIFICATION MESSAGES .....	6-4-4
6-4-7. ACTION BY ADDRESSEES .....	6-4-4
6-4-8. MAJOR FLIGHT PLAN CHANGES FROM EN ROUTE AIRCRAFT .....	6-4-4
6-4-9. CHANGE IN ETA .....	6-4-5
6-4-10. FLIGHT PLAN CLOSURE .....	6-4-6
6-4-11. MILITARY FLIGHTS TO/FROM U.S. ....	6-4-6
<b>Section 5. Military Operations</b>	
6-5-1. MILITARY TRAINING ACTIVITY .....	6-5-1
6-5-2. AERIAL REFUELING TRACKS .....	6-5-2
6-5-3. SPECIAL MILITARY FLIGHTS .....	6-5-2
6-5-4. MILITARY FOREIGN FLIGHTS .....	6-5-2
6-5-5. USAF/USN UNDERGRADUATE PILOTS .....	6-5-2
6-5-6. MESSAGE HANDLING .....	6-5-2
<b>Section 6. IFR/DVFR ADIZ Flight Plans</b>	
6-6-1. AIRCRAFT MOVEMENT INFORMATION SERVICES (AMIS) WITHIN AN ADIZ-IFR .....	6-6-1
6-6-2. AMIS WITHIN AN ADIZ-DVFR .....	6-6-1
6-6-3. FORWARDING DVFR INFORMATION .....	6-6-1
6-6-4. STOPOVER DVFR FLIGHT PLANS .....	6-6-2
6-6-5. ADDRESSING DVFR FLIGHT PLAN MESSAGES .....	6-6-2
<b>Section 7. Law Enforcement Messages</b>	
6-7-1. LAW ENFORCEMENT ALERT MESSAGES (LEAM) .....	6-7-1
6-7-2. INITIATING LEAMS .....	6-7-2
6-7-3. FSDPS RESPONSIBILITIES .....	6-7-2

**Section 8. Nonemergency Parachute Jumping**

<b>Paragraph</b>	<b>Page</b>
6-8-1. COORDINATION .....	6-8-1
6-8-2. PREJUMP RADIO COMMUNICATIONS .....	6-8-1

**Section 9. SECURITY NOTICE (SECNOT)**

6-9-1. SECURITY NOTICE (SECNOT) .....	6-9-1
6-9-2. ACTION UPON RECEIPT OF A SECURITY NOTICE .....	6-9-1
6-9-3. CANCELLATION OF SECURITY NOTICE .....	6-9-1

**Chapter 7. International Operations**

**Section 1. Messages and Formats**

7-1-1. GENERAL .....	7-1-1
7-1-2. AIR TRAFFIC SERVICE (ATS) MESSAGES .....	7-1-1
7-1-3. CATEGORIES OF MESSAGES .....	7-1-1
7-1-4. SERVICE MESSAGES .....	7-1-2
7-1-5. TRANSMISSION VIA NADIN .....	7-1-2
7-1-6. TRANSMISSION OF ATS MESSAGES .....	7-1-2
7-1-7. ORIGINATING MESSAGES .....	7-1-3
7-1-8. ADDRESSING MESSAGES .....	7-1-4
7-1-9. FLIGHT PLAN FORMS AND INSTRUCTIONS .....	7-1-4
7-1-10. ICAO ATS MESSAGE FORMAT .....	7-1-5
7-1-11. FLIGHT PLAN CHANGES AND CANCELLATIONS .....	7-1-5
7-1-12. AIR MOBILE SERVICE (AMS) .....	7-1-5
7-1-13. AIREPS (POSITION REPORTS) .....	7-1-6
7-1-14. AIREP SPECIALS (ARS) .....	7-1-9
7-1-15. ARTCC RELAY OF VFR MESSAGES .....	7-1-9

**Section 2. Customs Notification and ADIZ Requirements**

7-2-1. FLIGHT PLAN/CUSTOMS REQUIREMENTS .....	7-2-1
7-2-2. INBOUND PRIVATE AIRCRAFT: CUSTOMS REQUIREMENTS .....	7-2-1
7-2-3. INBOUND PRIVATE AIRCRAFT: ADIZ REQUIREMENTS .....	7-2-2

**Section 3. Alerting Service**

7-3-1. GENERAL .....	7-3-1
7-3-2. ALERTING PHASES .....	7-3-1
7-3-3. ALERTING MESSAGE CONTENTS .....	7-3-1

**Section 4. Canadian Movement and Control Messages  
(Transborder Flights Only)**

7-4-1. GENERAL .....	7-4-1
7-4-2. INBOUNDS FROM CANADA .....	7-4-1
7-4-3. OUTBOUNDS TO CANADA .....	7-4-1
7-4-4. OUTBOUNDS TO CANADA DEPARTING FROM OUTSIDE FLIGHT PLAN AREA .....	7-4-3
7-4-5. IFR FLIGHT PLANS DEPARTING CANADIAN AIRPORTS .....	7-4-3
7-4-6. SEARCH AND RESCUE MESSAGES .....	7-4-4

## **Section 5. Mexican Movement and Control Messages (Transborder Flights Only)**

<b>Paragraph</b>	<b>Page</b>
7-5-1. GENERAL .....	7-5-1
7-5-2. INBOUNDS FROM MEXICO .....	7-5-1
7-5-3. OUTBOUNDS TO MEXICO .....	7-5-1
7-5-4. MEXICAN REGIONAL FLIGHT DISPATCH OFFICE TELEPHONE NUMBERS .	7-5-2

## **Chapter 8. Search and Rescue (SAR) Procedures for VFR Aircraft**

### **Section 1. General**

8-1-1. RESPONSIBILITY FOR SAR ACTION .....	8-1-1
8-1-2. OVERDUE AIRCRAFT ON FLIGHT PLAN .....	8-1-1
8-1-3. OVERDUE AIRCRAFT NOT ON FLIGHT PLAN .....	8-1-1

### **Section 2. Overdue Aircraft Action**

8-2-1. INITIAL ACTION/QALQ .....	8-2-1
8-2-2. ACTION BY DEPARTURE STATION ON RECEIPT OF QALQ .....	8-2-1
8-2-3. CANCELLATION OF THE QALQ .....	8-2-2

### **Section 3. Information Requests (INREQs)**

8-3-1. INREQ .....	8-3-1
8-3-2. ACTION UPON RECEIPT OF INREQ .....	8-3-1
8-3-3. CANCELLATION OF INREQ .....	8-3-1

### **Section 4. Alert Notices (ALNOTs)**

8-4-1. ALNOT .....	8-4-1
8-4-2. ACTION UPON RECEIPT OF ALNOT .....	8-4-1
8-4-3. REPORTING ALNOT STATUS TO RCC .....	8-4-2
8-4-4. CANCELLATION OF ALNOT .....	8-4-2

### **Section 5. Other SAR Actions**

8-5-1. CONTACT WITH AIRCRAFT CROSSING HAZARDOUS AREA .....	8-5-1
8-5-2. CANADIAN TRANSBORDER .....	8-5-1

## **Chapter 9. FAA Weather Services**

### **Section 1. General**

9-1-1. PURPOSE .....	9-1-1
9-1-2. SCHEDULED TRANSMISSION TIMES .....	9-1-1
9-1-3. DISTRIBUTION .....	9-1-1

### **Section 2. Pilot Weather Report (UA/UUA)**

9-2-1. GENERAL .....	9-2-1
9-2-2. PREPARATION FOR TRANSMISSION .....	9-2-1
9-2-3. RESPONSIBILITY .....	9-2-1

<b>Paragraph</b>	<b>Page</b>
9-2-4. PIREP DISPLAY .....	9-2-1
9-2-5. SOLICITING PIREPS .....	9-2-1
9-2-6. RECORDING OF PIREP DATA .....	9-2-1
9-2-7. DATA TO BE INCLUDED IN PIREPS .....	9-2-1
9-2-8. REPORTING TURBULENCE IN PIREPS .....	9-2-2
9-2-9. REPORTING ICING CONDITIONS IN PIREPS .....	9-2-2
9-2-10. MEANS USED TO SOLICIT PIREPS .....	9-2-2
9-2-11. PIREP CLASSIFICATION .....	9-2-3
9-2-12. PIREP HANDLING .....	9-2-3
9-2-13. OFFSHORE COASTAL ROUTES .....	9-2-3
9-2-14. PIREP PREPARATION .....	9-2-3
9-2-15. PIREP FORMAT .....	9-2-4
9-2-16. PIREP ENCODING .....	9-2-7
9-2-17. PIREP ORDER .....	9-2-7

**Section 3. Radar Weather Report (SD/ROB)**

9-3-1. GENERAL .....	9-3-1
9-3-2. SCHEDULE .....	9-3-1
9-3-3. DISTRIBUTION .....	9-3-1

**Section 4. Wind and Temperature Aloft Forecast (FB)**

9-4-1. GENERAL .....	9-4-1
9-4-2. LEVELS FORECAST .....	9-4-1
9-4-3. SCHEDULES .....	9-4-1
9-4-4. DISTRIBUTION .....	9-4-1

**Section 5. Aviation Terminal Forecast (TAF)**

9-5-1. GENERAL .....	9-5-1
9-5-2. TERMINAL FORECAST SCHEDULES .....	9-5-1
9-5-3. DISTRIBUTION .....	9-5-1

**Section 6. Aviation Area Forecast (FA)**

9-6-1. GENERAL .....	9-6-1
9-6-2. AVIATION AREA FORECAST (FA) SCHEDULE .....	9-6-1
9-6-3. DISTRIBUTION .....	9-6-1

**Section 7. Severe Weather Forecasts**

9-7-1. GENERAL .....	9-7-1
9-7-2. DISTRIBUTION .....	9-7-1
9-7-3. SEVERE WEATHER OUTLOOK NARRATIVE (AC) .....	9-7-1

**Section 8. Flight Advisories (SIGMET/WS-AIRMET/WA-Convective SIGMET/WST)**

9-8-1. GENERAL .....	9-8-1
9-8-2. DISTRIBUTION .....	9-8-1

**Section 9. Transcribed Weather Broadcast (TWEB)**

<b>Paragraph</b>	<b>Page</b>
9-9-1. GENERAL .....	9-9-1
9-9-2. CROSS-COUNTRY ROUTES .....	9-9-1

**Section 10. Meteorological Impact Statement (MIS)**

9-10-1. GENERAL .....	9-10-1
9-10-2. CRITERIA .....	9-10-1
9-10-3. DISTRIBUTION .....	9-10-1

**Section 11. Center Weather Advisory (CWA)**

9-11-1. GENERAL .....	9-11-1
9-11-2. CRITERIA .....	9-11-1
9-11-3. DISTRIBUTION .....	9-11-2

**Chapter 10. Data Communication Systems**

**Section 1. General**

10-1-1. TYPES OF DATA ACCEPTABLE ON FAA DATA COMMUNICATIONS SYSTEMS .....	10-1-1
10-1-2. PRIORITY MESSAGES .....	10-1-1
10-1-3. GENERAL NOTICES .....	10-1-1
10-1-4. GROUP CODES .....	10-1-1
10-1-5. MESSAGE FORMATS .....	10-1-2
10-1-6. WMSCR NEGATIVE RESPONSE MESSAGES .....	10-1-3

**Chapter 11. Airport Lighting and Visibility Aids**

**Section 1. General**

11-1-1. AIRPORT LIGHTING .....	11-1-1
11-1-2. OBSTRUCTION LIGHTS .....	11-1-1
11-1-3. ROTATING BEACON .....	11-1-1
11-1-4. APPROACH LIGHTS .....	11-1-1
11-1-5. ALS INTENSITY SETTINGS .....	11-1-1
11-1-6. SEQUENCED FLASHING LIGHTS .....	11-1-1
11-1-7. RUNWAY EDGE LIGHTS .....	11-1-1
11-1-8. CHANGING LIGHTED RUNWAYS .....	11-1-2
11-1-9. SIMULTANEOUS APPROACH AND RUNWAY EDGE LIGHT OPERATION ...	11-1-2
11-1-10. MALSR ODALS .....	11-1-2
11-1-11. HIRL ASSOCIATED WITH MALSR .....	11-1-2
11-1-12. MEDIUM INTENSITY RUNWAY LIGHTS .....	11-1-3
11-1-13. HIGH INTENSITY RUNWAY, RUNWAY CENTERLINE, AND TOUCHDOWN ZONE LIGHTS .....	11-1-3
11-1-14. HIRL CHANGES AFFECTING RVR .....	11-1-3
11-1-15. HIGH SPEED TURNOFF LIGHTS .....	11-1-3
11-1-16. RUNWAY END IDENTIFIER LIGHTS .....	11-1-3
11-1-17. TAXIWAY LIGHTS .....	11-1-3
11-1-18. VISUAL APPROACH SLOPE INDICATORS (VASIS) .....	11-1-3
11-1-19. VISIBILITY AIDS - GENERAL .....	11-1-4

<b>Paragraph</b>	<b>Page</b>
11-1-20. RVR/RVV .....	11-1-4
11-1-21. OPERATION OF LANDING DIRECTION INDICATOR .....	11-1-4

## **Chapter 12. Interphone Communications**

### **Section 1. General**

12-1-1. PURPOSE .....	12-1-1
12-1-2. INTERPHONE TRANSMISSION PRIORITIES .....	12-1-1
12-1-3. PRIORITY INTERRUPTION .....	12-1-1
12-1-4. MESSAGE INITIATION .....	12-1-1
12-1-5. MESSAGE TERMINATION .....	12-1-2

## **Chapter 13. Phraseology**

### **Section 1. General**

13-1-1. PURPOSE .....	13-1-1
13-1-2. PHRASEOLOGY .....	13-1-1
13-1-3. WORDS AND PHRASES .....	13-1-1
13-1-4. ANNOUNCING MISSING ITEMS .....	13-1-1
13-1-5. ICAO PHONETICS .....	13-1-1
13-1-6. RELAY OF ATC COMMUNICATIONS .....	13-1-2
13-1-7. EXPEDITIOUS COMPLIANCE .....	13-1-2
13-1-8. WEATHER PHRASEOLOGY .....	13-1-2
13-1-9. WEATHER REMARKS .....	13-1-7
13-1-10. WEATHER ADVISORIES .....	13-1-9
13-1-11. RADAR .....	13-1-10
13-1-12. WINDS AND TEMPERATURES ALOFT FORECAST (FB) .....	13-1-11
13-1-13. NUMBER USAGE .....	13-1-12
13-1-14. FACILITY IDENTIFICATION .....	13-1-14
13-1-15. AIRCRAFT IDENTIFICATION .....	13-1-14
13-1-16. AIRCRAFT TYPES .....	13-1-17
13-1-17. AIRCRAFT EQUIPMENT CODES .....	13-1-18
13-1-18. AIRWAYS AND ROUTES .....	13-1-18
13-1-19. NAVAID TERMS .....	13-1-18
13-1-20. NAVAID FIXES .....	13-1-19
13-1-21. RUNWAY CONDITIONS .....	13-1-19

## **Appendices**

Appendix A. ICAO FLIGHT PLANS .....	Appendix A-1
Appendix B. Q SIGNALS .....	Appendix B-1
Pilot/Controller Glossary .....	PCG A-1
Index .....	1-1

# Chapter 1. General

## Section 1. Introduction

### 1-1-1. PURPOSE OF THIS ORDER

This order prescribes procedures and phraseology for use by air traffic personnel providing flight services. Flight service specialists are required to be familiar with the provisions of this order that pertain to their operational responsibilities and to exercise their best judgment if they encounter situations that are not covered.

### 1-1-2. AUDIENCE

This order applies to all ATO personnel and anyone using ATO directives.

### 1-1-3. WHERE TO FIND THIS ORDER

This order is available on the FAA Web site at [http://faa.gov/air\\_traffic/publications](http://faa.gov/air_traffic/publications) and [http://employees.faa.gov/tools\\_resources/orders\\_notices/](http://employees.faa.gov/tools_resources/orders_notices/).

### 1-1-4. WHAT THIS ORDER CANCELS

FAA Order 7110.10T, Flight Services, dated February 14, 2008, and all changes to it are canceled.

### 1-1-5. EXPLANATION OF CHANGES

The significant changes to this order are identified in the Explanation of Changes page(s). It is advisable to retain the page(s) throughout the duration of the basic order. If further information is desired, direct questions through the appropriate facility/service area office staff to Flight Services Safety and Operations Support, Operational Procedures.

### 1-1-6. SUBMISSION CUTOFF AND EFFECTIVE DATES

This order and its changes are scheduled to be published to coincide with AIRAC dates. The effective dates will be:

Publication Schedule		
Basic or Change	Cutoff Date for Submission	Effective Date of Publication
JO 7110.10U	8/27/09	2/11/10
Change 1	2/11/10	8/26/10
Change 2	8/26/10	3/10/11
Change 3	3/10/11	8/25/11
JO 7110.10V	8/25/11	2/9/12

### 1-1-7. DELIVERY DATES

If an FAA facility **has not** received the order/changes at least 30 days before the above effective dates, the facility shall notify its service area office distribution officer.

### 1-1-8. RECOMMENDATION FOR PROCEDURAL CHANGES

- a. Submit recommended changes directly to the facility management.
- b. Procedural changes will not be made to this order until the operational system software has been adapted to accomplish the revised procedures.

### 1-1-9. SUBSCRIPTION INFORMATION

This publication may be purchased from the U.S. Government Printing Office. Address subscription inquiries to:

Superintendent of Documents  
 U.S. Government Printing Office  
 P.O. Box 979050  
 St. Louis, MO 63197-9000  
 Online: <http://bookstore.gpo.gov>

FAA air traffic publications are also available on the FAA's web site at: [http://www.faa.gov/air\\_traffic/publications/](http://www.faa.gov/air_traffic/publications/)

**■ 1-1-10. DISTRIBUTION**

This order is distributed to selected offices in Washington headquarters, regional offices, service area offices, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, all air traffic field facilities, international aviation field offices, and interested aviation public.

## Section 2. Terms of Reference

### 1-2-1. WORD MEANINGS

As used in this order:

- a. “Shall” or “must” means a procedure is mandatory.
- b. “Should” means a procedure is recommended.
- c. “May” or “need not” means a procedure is optional.
- d. “Will” means futurity, not a requirement for application of a procedure.
- e. “Shall not” or “must not” means a procedure is prohibited.
- f. Singular words include the plural.
- g. Plural words include the singular.
- h. “Aircraft” means the airframe, crew members, or both.
- i. “Altitude” means indicated altitude mean sea level (MSL), flight level (FL), or both.
- j. “Miles” means nautical miles unless otherwise specified and means statute miles in conjunction with visibility.
- k. “Time,” when used for ATC operational activities, is the hour and the minute/s in Coordinated Universal Time (UTC). Change to the next minute is made at the minute plus 30 seconds, except time checks are given to the nearest quarter minute. The word “local” or the time zone equivalent shall be stated when local time is given during radio and telephone communications. The term “ZULU” may be used to denote UTC.
- l. “Sector,” when used in conjunction with FSS functions, means a specifically described geographic area that is assigned a NADIN address.
- m. “Tie-in facility,” as indicated in FAA Order JO 7350.8, Location Identifiers, for the purposes of this order, designates the responsible facility/sector for sending/receiving flight plans, flight notification messages, and performing search and rescue duties for the listed location.
- n. “Shared database” is a database within an FSS operational system that is accessible by specialists in other geographical locations.

o. “Transmit” means to send data via NADIN or WMSCR to an outside recipient or to process data internally within an operational system that shares a global database.

p. “Form” means a paper record or an automated equivalent. Both must be retained in accordance with FAA directives.

q. “History files” means one or more digital or paper repositories of data that must be retained in accordance with FAA directives.

### 1-2-2. NOTES

Statements of fact or of an explanatory nature and relating to the use of directive material have been identified and worded as “Notes.”

### 1-2-3. JO 7110.10 CHANGES

a. Each reprinted, revised, or additional page will show the change number and the effective date of the change.

b. Bold lines in the margin of the text will mark the location of all changes except editorial corrections.

### 1-2-4. ABBREVIATIONS

Abbreviations authorized for use in the application of the procedures in this order are those contained in FAA Order JO 7340.2, Contractions.

### 1-2-5. EXAMPLES

Any illustration used which serves to explain subject material is identified as an “Example.”

### 1-2-6. PHRASEOLOGY

Phraseology depicted in this order is mandatory.

#### **NOTE-**

*Exceptions to this para are referenced in para 5-1-1, and para 14-1-2 Note.*

### 1-2-7. SYSTEM INSTRUCTIONS

Different operational systems are used to provide flight services within the United States. Each individual operational system must have instructions in the form of a user’s manual or guide, either

electronically or in paper form, that provide the necessary steps to accomplish the requirements set forth in this order.

## Section 3. Responsibility

### 1-3-1. PROCEDURAL APPLICATIONS

Apply the procedures in this order, except when other procedures are contained in a letter of agreement (LOA) or other appropriate FAA documents, provided they only supplement this order and any standards they specify are not less than those in this order.

#### **NOTE-**

1. *Pilots are required to abide by applicable provisions of 14 CFR or any other pertinent regulations regardless of the application of any procedure in this order.*
2. *FAAO JO 7210.3, Facility Operation and Administration, contains administrative instructions pertaining to these letters and documents.*

### 1-3-2. DUTY PRIORITY

Because there are many variables involved, it is impossible to provide a standard list of duty priorities that apply to every situation. Each set of circumstances must be evaluated on its own merit, and when more than one action is required, personnel shall exercise their best judgment based on the facts and circumstances known to them. Action which appears most critical from a safety standpoint should be performed first.

a. The following order of duty priorities is offered as a guideline.

1. **Emergency Situations.** Emergency situations are those where life or property is in immediate danger.

2. **Inflight Services.** Inflight services are those provided to or affecting aircraft in flight or otherwise operating on the airport surface. This includes services to airborne aircraft, airport advisories, delivery of ATC clearances, advisories or requests, issuance of military flight advisory messages, EFAS, NOTAM, SAR communications searches, flight plan handling, transcribed or live broadcasts, weather observations, PIREPs, and pilot briefings.

3. **Preflight Services.** Preflight services are those which directly affect aircraft operations but which are provided prior to actual departure and usually by telephone. These include pilot briefings,

recorded data, flight plan filing/processing, and aircraft operational reservations.

### 1-3-3. DUTY FAMILIARIZATION AND TRANSFER OF POSITION RESPONSIBILITY

The transfer of position responsibility shall be accomplished in accordance with appropriate facility directives each time the operational responsibility for a position is transferred from one specialist to another. The relieving specialist and the specialist being relieved shall share equal responsibility for the completeness and accuracy of the position relief briefing.

a. **Purpose.** This para prescribes the method and the step-by-step process for conducting a position relief briefing and transferring position responsibility from one specialist to another.

b. **Discussion.**

1. In all operational facilities, the increase in traffic density and the need for the expeditious movement of air traffic without compromising safety have emphasized the importance of the position relief process. Major problems occur whenever there is a heavy reliance upon memory unsupported by routines or systematic reminders. This procedure addresses the complete task of transferring position responsibility and the associated relief briefing.

2. Position relief unavoidably provides added workload for specialists at the time of relief. The intent of this procedure is to make the transfer of position responsibility take place smoothly and to ensure a complete transfer of information with a minimum amount of workload. The method takes advantage of a self-briefing concept in which the relieving specialist obtains needed status information by reading from the Status Information Areas to begin the relief process. Up-to-the-minute information relating to the provision of flight services to pilots and aircraft in flight requires verbal exchanges between specialists during the relief process. The method also specifies the point when the transfer of position responsibility occurs.

3. In the final part of the relief process, the specialist being relieved monitors and reviews the

position to ensure that nothing has been overlooked or incorrectly displayed and that the transfer of position responsibility occurred with a complete briefing.

**c. Terms.** The following terms are important for a complete understanding of this procedure:

**1. Status Information Areas.** Manual or automated displays of the current status of position-related equipment and operational conditions or procedures.

**2. Written Notes.** Manually recorded items of information kept at designated locations on the positions of operation are elements of Status Information Areas.

**3. Checklist.** An ordered listing of items to be covered in a position relief.

**d. Precautions.**

**1.** Specialists involved in the position relief process should not rush or be influenced to rush.

**2.** During position operation, each item of status information which is or may be an operational factor for the relieving specialist should be recorded as soon as it is operationally feasible so that it will not be forgotten or incorrectly recorded.

**3.** Extra care should be taken when more than one specialist relieves or is being relieved from a position at the same time; e.g., combining or decombining positions.

**e. Responsibilities.** The specialist being relieved shall be responsible for ensuring that any pertinent status information of which he/she is aware is relayed to the relieving specialist and is either:

**1.** Accurately displayed in the Status Information Areas for which he/she has responsibility, or

**2.** Relayed to the position having responsibility for accurately displaying the status information. Prior to accepting responsibility for a position, the relieving specialist shall be responsible for ensuring that any unresolved questions pertaining to the operation of the position are resolved. The specialists engaged in a position relief shall conduct the relief process at the position being relieved, unless other procedures have been established and authorized by the facility air traffic manager.

**f. Step-By-Step Process of Position Relief.**

## 1. Preview of the Position

### RELIEVING SPECIALIST

**(a)** Follow the checklist and review the Status Information Areas.

**NOTE-**

*This substep may be replaced by an authorized pre-duty briefing provided an equivalent review of checklist items is accomplished.*

**(b)** Observe position equipment, operational situation, and the work environment.

**(c)** Listen to voice communications and observe other operational actions.

**(d)** Observe current and pending aircraft and vehicular traffic and correlate with flight and other movement information.

**(e)** Indicate to the specialist being relieved that the position has been previewed and that the verbal briefing may begin.

**NOTE-**

*Substeps (b), (c), and (d) may be conducted concurrently or in order.*

## 2. Verbal Briefing

### SPECIALIST BEING RELIEVED

**(a)** Review with the relieving specialist, the checklist, Status Information Areas, written notes, and other prescribed sources of information, and advise of known omissions, updates, and inaccuracies. Also brief the relieving specialist on the abnormal status of items not listed on the Status Information Areas, as well as on any items of special operational interest calling for verbal explanation or additional discussion.

**(b)** Brief on traffic, if applicable.

**(c)** Completely answer any questions asked.

**(d)** Observe overall position operation. If assistance is needed, provide or summon it as appropriate.

**(e)** Sign off the position in accordance with existing directives or otherwise indicate that the relief process is complete.

**REFERENCE-**

*JO 7210.3, Para 2-2-4, Duty Familiarization and the Transfer of Position Responsibility*

*FAAO JO 7210.3, Para 2-2-6, Sign In/Out and On/Off Procedures*

<b>RELIEVING SPECIALIST</b>
-----------------------------

(f) Ask questions necessary to ensure a complete understanding of the operations situation.

(g) Make a statement or otherwise indicate to the specialist being relieved that position responsibility has been assumed.

(h) Sign on the position unless a facility directive authorizes substep (g) above.

(i) Check, verify, and update the information obtained in steps 1 and 2.

g. Check position equipment in accordance with existing directives.



# Chapter 3. Pilot Briefing

## Section 1. General

### 3-1-1. DEFINITION

Pilot weather briefings are defined as “The translation of weather observations and forecasts, including surface, upper air, radar, satellite, and pilot reports into a form directly usable by the pilot or flight supervisory personnel to formulate plans and make decisions for the safe and efficient operation of aircraft.” These briefings shall also include information on NOTAM, flow control, and other items as requested.

### 3-1-2. PREDUTY REQUIREMENTS

Before assuming pilot briefing duties, familiarize yourself sufficiently with aeronautical and meteorological conditions to effectively provide briefing service. This includes:

- a. General locations of weather causing systems and general weather conditions for the entire contiguous United States and/or other briefing areas, as appropriate; e.g., Alaska, Hawaii, Mexico, Canada, Puerto Rico.
- b. Detailed information of current and forecast weather conditions for the geographical area deemed significant by the facility air traffic manager.
- c. Other pertinent items; e.g., NOTAM, MTR/MOA activity.

#### REFERENCE-

*Accomplish this in accordance with FAAO JO 7110.10, Para 1-3-3 and pertinent facility directives.*

### 3-1-3. PREFLIGHT BRIEFING DISPLAY

Provide a preflight briefing display for specialist/pilot use. The contents and method of display must be based on individual facility requirements; for example, available equipment, space. Additional

displays, as required, must be provided to ensure availability of information at all inflight and preflight positions. At the discretion of facility management, provide a separate display for pilot use. All material in such displays must be kept updated.

### 3-1-4. WEATHER DISPLAY PRODUCTS

a. The weather graphic display should include, but not necessarily be limited to, the following analysis, prognosis, and data products:

1. Weather Depiction.
  2. Surface Analysis.
  3. Forecast Winds Aloft.
  4. Current Winds Aloft.
  5. National Radar Summary.
  6. 850 MB.
  7. 700 MB.
  8. 500 MB.
  9. 300 MB.
  10. 200 MB.
  11. Composite Moisture Stability Chart (Lifted Index, Precipitable Water, Freezing Level-Mean Relative Humidity).
  12. 12- and 24-hour low level significant weather prognosis.
  13. High level significant weather prognosis.
  14. 36- and 48-hour surface prognosis.
- b. Map features. (See [FIG 3-1-1](#).)
- c. Precipitation and obstruction to vision. (See [FIG 3-1-2](#).)

**FIG 3-1-1  
Map Features  
Chart**

TYPE	SYMBOL	COLOR
Cold front		Blue
Warm front		Red
Occluded front		Purple
Stationary front		Red and blue
Instability line		Purple
Convergence line		Green
Trough		Brown
Ridge		Yellow
Low pressure center		Red
High pressure center		Blue
Jet streams		Black
Isotherms		Red
Isotachs		Yellow
Freezing level aloft	80- - - -80	Red
IFR conditions		Red
MVFR conditions		Blue
Line of echoes		Red
Overcast Clouds (36-48 hour Prog only)		Orange
Area of echoes		Green
Severe Weather area		Red
Turbulence areas		Red
Precipitation areas		Green
Icing symbols		Red
Turbulence symbols		Red

**FIG 3-1-2  
Precipitation and Obstruction To Vision  
Chart**

Type	Symbol	Color
Freezing precipitation		red
Snow		green
Rain		green
Drizzle		green
Thunderstorm		red
Fog		yellow
Haze		yellow
Smoke		black
Dust		brown

**d.** Interpret and summarize weather radar video displays and issue pertinent information on observed/reported weather areas.

**1.** Use all available radar data and PIREPs to determine intensity, tops, area of coverage, movement, etc.

**REFERENCE-**  
*Pilot/Controller Glossary, Precipitation Radar Weather Descriptions.*

**2.** Identify data obtained from sources other than radar display by source and time of observation.

**3.** To the extent possible, define area of coverage in relation to VORs or airways for the route structure being flown. Airports or geographic points may be used to assist the pilot in relating coverage to route of flight or destination.

**EXAMPLE-**

*“A broken line of weak to intense echoes covers an area along and three zero miles east of a line from the Crazy Woman V-O-R to the Riverton V-O-R. Average tops between two-six thousand and three-four thousand. This line is increasing in intensity. Movement has been from northwest to southeast at three zero knots. The line includes an intense echo one five miles in diameter on Victor Two Ninety-eight forty-eight miles southeast of the Worland V-O-R, tops four three thousand. There are no known echoes within three-zero nautical miles of Victor Eight-five or Victor Two Ninety-eight south at this time.”*

### 3-1-5. FORECASTS, WARNINGS, AND ADVISORIES

a. Use only weather forecasts, warnings, and advisories issued by an NWS Weather Forecast Office (WFO) including CWSUs, the U.S. military, foreign governments, or graphics systems owned/leased by the FAA or provided through an FAA contracted service provider.

b. Use the information in the Meteorological Impact Statement (MIS) for pre-duty briefings, background, and supplemental information only. The MIS is a traffic flow planning product and is not to be used as an integral part of a briefing presentation.

c. The OUTLOOK section of WSTs includes meteorological discussion information. Extract pertinent forecast data concerning convective activity location, movement, and intensity for briefing purposes. Do not provide discussion type information unless requested by the pilot.

d. When an NWS forecast requires an amendment or correction, request assistance from the appropriate WFO.

### 3-1-6. UNAVAILABILITY OF DATA

Use all available means to obtain the data required to brief pilots. If a complete briefing cannot be provided due to circuit problems or missing data, inform the pilot of this fact. Brief to the extent possible. As appropriate, furnish the pilot with the telephone number of another FSS or advise the pilot of the time you expect the data to be available.

### 3-1-7. TYPE OF BRIEFING TO BE CONDUCTED

Provide the pilot with the type of briefing requested; i.e., standard, abbreviated, or outlook. When it is not clear initially which type briefing is desired, provide the first one or two items requested, and then ascertain if the pilot would like a standard briefing. If a standard briefing is requested, conduct the briefing in accordance with para 3-2-1. If the pilot does not desire a standard briefing, provide either an abbreviated briefing in accordance with para 3-2-2,

or an outlook briefing, in accordance with para 3-2-3.

### 3-1-8. RECORDING PILOT BRIEFINGS

a. For accountability, pilot briefings are logged and stored electronically, where possible, in the operational system history files in accordance with operational system instructions.

b. The required elements for logging a pilot weather briefing are aircraft identification and flight rules.

1. The pilot's name may be substituted for the aircraft identification, if unknown.

2. Enter remarks, as applicable, to indicate OTLK (outlook briefing), AB (abbreviated briefing), and/or VNR.

c. To manually log pilot briefings, use one of the following FAA forms:

1. FAA Form 7233-2, Pilot Briefing Log. Use a separate form each day. Two or more forms may be used simultaneously at different operating positions. Complete boxes 1 through 3 on each form. Enter appropriate data in columns 4, 5, 6, 7, 8 (if pertinent), and 9. If unknown, the pilot's name may be substituted for the aircraft identification. As applicable, enter OTLK (outlook briefing), AB (abbreviated briefing), and/or VNR in column 8.

2. FAA Form 7233-1, Flight Plan Form. Check the "pilot briefing" block, and fill in specialist initials and time started. As applicable, also enter AB, OTLK, and/or check the VNR block.

3. FAA Forms 7233-5, Inflight Contact Record, or 7230-21, Flight Progress Strip. Enter PB in block 14 if a briefing is provided. As applicable, also enter AB, OTLK, and/or VNR in the same block.

d. Where recorders are used, facility management may limit entries on pilot briefing records to those required for facility use.

e. Where fast-file recorders are used and the pilot states the source of a briefing on the recorder, it must be entered in the remarks field of the flight plan.

**EXAMPLE-**  
PB/DCA  
PB/DUATS



## Section 2. Preflight Pilot Briefing

### 3-2-1. CONDUCT OF STANDARD BRIEFING

a. Brief by translating, interpreting, and summarizing available data for the intended flight. Do not read individual weather reports or forecasts unless, in your judgment, it is necessary to emphasize an important point or unless specifically requested to do so by the pilot. Obtain the following information if it is pertinent and not evident or already known:

1. Type of flight planned.
2. Aircraft identification or pilot's name.
3. Aircraft type.
4. Departure point.
5. Route of flight.
6. Destination.
7. Flight altitude(s).
8. ETD and ETE.

Pilot briefer shall issue the following cautionary advisory to a pilot planning a flight outside of United States controlled airspace, unless the pilot states "I have the international cautionary advisory."

#### **PHRASEOLOGY-**

*CHECK DATA AS SOON AS PRACTICAL AFTER ENTERING FOREIGN AIRSPACE, AS OUR INTERNATIONAL DATA MAY BE INACCURATE OR INCOMPLETE.*

b. Using all sources of weather and aeronautical information, provide the following data when it is applicable to the proposed flight. Provide items 1 through 8 in the sequence listed except as noted.

1. *Adverse Conditions.* Include this element when meteorological or aeronautical conditions are reported or forecast that might influence the pilot to alter the proposed flight. Emphasize conditions that are particularly significant, such as low level wind shear, thunderstorms, reported icing, frontal zones along the route of flight, airport/runway closure NOTAMs, air traffic delays, etc. Weather advisories (WS, WA, WST, CWA, and AWW) must be given by stating the type of advisory followed by the pertinent information.

#### **EXAMPLE-**

*"An AIRMET is in effect until 1400 for possible moderate turbulence below 10,000 feet over the mountainous area of southern California."*

#### **NOTE-**

*NOTAMs in this category may be provided as part of item 8.*

2. *VFR Flight Not Recommended (VNR).* Include this statement when VFR flight is proposed and sky conditions or visibilities are present or forecast, surface or aloft, that in your judgment would make flight under visual flight rules doubtful. Describe the conditions, affected locations, and times.

#### **EXAMPLE-**

*"There are broken clouds along the entire route between niner and one one thousand feet. With the approach of a cold front, these clouds are forecast to become overcast and to lower to below seven thousand with mountains and passes becoming obscured. V-F-R flight is not recommended between Salt Lake City and Grand Junction after two two zero zero ZULU."*

*"V-F-R flight is not recommended in the Seattle area until early afternoon. The current weather at Seattle is indefinite ceiling three hundred sky obscured, visibility one, mist, and little improvement is expected before one eight zero zero ZULU."*

#### **NOTE-**

*This recommendation is advisory in nature. The decision as to whether the flight can be conducted safely rests solely with the pilot.*

3. *Synopsis.* Provide a brief statement describing the type, location, and movement of weather systems and/or air masses which might affect the proposed flight. This element may be combined with adverse conditions and/or the VNR element, in any order, when it will help to more clearly describe conditions.

4. *Current Conditions.* Summarize from all available sources reported weather conditions applicable to the flight. This element may be omitted if the proposed time of departure is beyond 2 hours unless the information is requested by the pilot.

#### **NOTE-**

*If AUTO appears after the date/time element and is presented as a singular report, follow the location announcement with the word "AUTOMATED."*

**5. En Route Forecast.** Summarize from appropriate data applicable to the proposed flight; for example, area forecasts, TAFs, prognosis charts, weather advisories, etc. Provide the information in a logical order; for example, climb out, en route, and descent.

**6. Destination Forecast.** Provide the destination forecast including significant changes expected within 1 hour before and after the ETA.

**7. Winds Aloft.** Provide forecast winds aloft for the proposed route using degrees of the compass. Interpolate wind directions and speeds between levels and stations as necessary. Provide temperature information on request.

**8. Notices to Airmen (NOTAM).** Provide NOTAM information pertinent to the flight:

(a) NOTAM (D). All NOTAMs (D), including Special Use Airspace (SUA) NOTAMs for Restricted Areas, Aerial Refueling, and Night Vision Goggles (NVG).

**NOTE-**

*Other SUA NOTAMs (D), such as Military Operations Area (MOA), Military Training Route (MTR) and Warning Area NOTAMs, are considered “upon request” briefing items as indicated in paragraph 3-2-1b12(a).*

(b) Prohibited Areas P-40, P-49, P-56 and the Special Flight Rules Area (SFRA) for Washington, DC.

(c) Flight Data Center (FDC) NOTAMs not already carried in the Notices to Airmen publication.

(d) Combine this element with adverse conditions when it would be logical and advantageous to do so.

**9. ATC Delays.** Inform the pilot of ATC delays and/or flow control advisories that might affect the proposed flight.

**10. Request for PIREPs.** Include this element when, in your judgment, a report of actual inflight conditions is beneficial or when conditions meet criteria for solicitation of PIREPs (para 9-2-5). Advise the pilot to contact Flight Watch or Flight Service to report en route conditions.

**11. EFAS.** When appropriate, inform pilots of the availability of Flight Watch for weather updates; e.g., thunderstorms, icing.

**12. Upon Request.** Provide any information requested by the pilot, including, but not limited to:

(a) Special Use Airspace, except those listed in paragraph 3-2-1b8(a), SUA related airspace (i.e., Air Traffic Control Assigned Airspace (ATCAA)) and military training route (MTR) activity. For all SUA and MTR data requests, advise the pilot that information may be updated periodically and to contact the appropriate ATC facility for additional information while in flight.

**NOTE-**

*For the purpose of this paragraph, SUA and related airspace includes the following types of airspace: Alert Area, Military Operations Area (MOA), Warning Area and Air Traffic Control Assigned Airspace (ATCAA). MTR data includes the following types of airspace: IFR Training Routes (IR), VFR Training Routes (VR), and Slow Training Routes (SR).*

(b) Approximate density altitude data.

(c) Information regarding such items as air traffic service and rules, customs/immigration procedures, ADIZ rules, SAR, Flight Watch, etc.

(d) LORAN C NOTAMs.

**REFERENCE-**

*FAAO JO 7930.2, Para 5-3-7o, NOTAM (D) NAVAID.*

(e) Military NOTAMs.

**REFERENCE-**

*FAAO JO 7930.2 Para 8-3-1, Military NOTAM Availability.*

(f) GPS Receiver Autonomous Integrity Monitoring (RAIM) Aeronautical Information. RAIM information shall be provided 1-hour before to 1-hour after the ETA, or a time frame requested by the pilot.

(g) Runway friction measurement NOTAMs.

(h) Special FDC instrument approach procedure changes.

### **3-2-2. CONDUCT OF ABBREVIATED BRIEFING**

Provide an abbreviated briefing when a pilot requests information to supplement mass disseminated data; update a previous briefing; or when the pilot requests that the briefing be limited to specific information. Pilot briefers shall issue the following cautionary advisory to a pilot planning a flight outside of United States controlled airspace, unless the pilot states “I have the international cautionary advisory”:

**PHRASEOLOGY-**

*CHECK DATA AS SOON AS PRACTICAL AFTER ENTERING FOREIGN AIRSPACE, AS OUR*

*INTERNATIONAL DATA MAY BE INACCURATE OR INCOMPLETE.*

Conduct abbreviated briefings as follows:

**a.** When a pilot desires specific information only, provide the requested information. If adverse conditions are reported or forecast, advise the pilot. Provide details on these conditions, in accordance with subpara 3-2-1b1, at the pilot's request.

**b.** When a pilot requests an update to a previous briefing, obtain from the pilot the time the briefing was received and necessary background information. To the extent possible, limit the briefing to appreciable changes in meteorological and aeronautical conditions since the previous briefing.

**c.** When a pilot requests information to supplement data obtained through FSS mass dissemination media, obtain pertinent background information, the specific items required by the pilot, and provide the information in the sequence listed in subpara 3-2-1b.

**d.** Solicit PIREPs in accordance with subpara 3-2-1b10.

**e.** When a pilot requests to file a flight plan only, ask if he/she requires the latest information on adverse conditions along the route of flight. If so, provide the information pertinent to the route of flight in accordance with subpara 3-2-1b1.

### **3-2-3. CONDUCT OF OUTLOOK BRIEFING**

**a.** Provide an outlook briefing when the proposed departure is 6 hours or more from the time of the briefing. Conduct the briefing in accordance with subpara 3-2-1b, but limit the briefing to forecast data applicable to the proposed flight. Omit items 2, 4, and 7 through 11 unless specifically requested by the pilot or deemed pertinent by the briefer.

**b.** When the proposed flight is scheduled to be conducted beyond the valid time of the available forecast material, provide a general outlook and then advise the pilot when complete forecast data will be available for the proposed flight.



# Chapter 4. Inflight Services

## Section 1. General

### 4-1-1. INFLIGHT SERVICES

Inflight services are those provided to or affecting aircraft inflight or otherwise operating on the airport surface. This includes services to airborne aircraft, such as airport advisories, delivery of ATC clearances, advisories or requests, issuance of military flight advisory messages, EFAS, NOTAM, SAR communications searches, flight plan handling, transcribed or live broadcast, weather observations, PIREPs, and pilot briefings.

**NOTE-**

*Provide inflight services in accordance with the procedures in this chapter to aircraft on a “first come, first served” basis, as circumstances permit.*

### 4-1-2. EN ROUTE FLIGHT ADVISORY SERVICE (EFAS/FLIGHT WATCH)

A service specifically designed to provide, upon pilot request, timely weather information pertinent to the type of flight, intended route of flight, and altitude.

**NOTE-**

*EFAS/Flight Watch outlets are listed in the Airport/Facility Directory (A/FD).*

### 4-1-3. OPERATIONAL PRIORITY

**a.** Emergency situations are those where life or property are in immediate danger. Aircraft in distress have priority over all other aircraft.

**b.** Provide priority service to civilian air ambulance (LIFEGUARD), or military air evacuation (AIR EVAC, MED EVAC) flights. When requested by the pilot, provide notifications to expedite ground handling of patients, vital organs, or urgently needed medical materials. Assist the pilots of air ambulance/evacuation aircraft to avoid areas of significant weather and turbulent conditions.

**NOTE-**

*Air carrier/Air taxi usage of “Lifeguard” call sign indicates that operational priority is requested.*

**c.** Provide maximum assistance to search and rescue (SAR) aircraft performing a SAR mission.

**d.** Provide special handling as required to expedite Flight Check and SAFI aircraft.

### 4-1-4. INFLIGHT WEATHER BRIEFING

Upon request, provide the pilot with an inflight weather briefings, in accordance with the procedure outlined in Chapter 3, Section 2. The following cautionary advisory must be issued for flights outside of United States controlled airspace, unless the pilot states “I have the international cautionary advisory.”

**PHRASEOLOGY-**

*CHECK DATA AS SOON AS PRACTICAL AFTER ENTERING FOREIGN AIRSPACE, AS OUR INTERNATIONAL DATA MAY BE INACCURATE OR INCOMPLETE.*

### 4-1-5. INFLIGHT EQUIPMENT MALFUNCTIONS

**a.** Inflight equipment malfunctions include partial or complete failure of equipment which may affect either safety and/or the ability of the flight to proceed. Specialists may expect reports from pilots regarding VOR, ADF, Low Frequency Navigation Receivers, impairment of air-ground communications capability, or other equipment deemed appropriate by the pilot.

**b.** When a pilot reports a flight equipment malfunction, determine the nature and extent of any assistance desired.

**c.** Provide maximum assistance possible consistent with equipment, workload, and any special handling requested.

**d.** Relay to other specialists or facilities who will subsequently handle the aircraft all pertinent details concerning the aircraft and any special handling requested or being provided.

### 4-1-6. AIRCRAFT REPORTED NAVAID MALFUNCTIONS

**a.** Aircraft reported NAVAID malfunctions are subject to varying circumstances. When an aircraft reports a ground-based NAVAID malfunction, take the following action:

1. Request a report from a second aircraft.
2. If the second aircraft reports normal operations, if able, inform the first aircraft. Record the incident on FAA Form 7230-4.
3. If the second aircraft confirms the malfunction:
  - (a) Notify the appropriate IFR control facility or sector.
  - (b) Notify Technical Operations personnel.
  - (c) Take NOTAM action, if necessary.
  - (d) Record the incident on FAA Form 7230-4.
4. In the absence of a second aircraft report:
  - (a) Notify Technical Operations and advise what time the initial aircraft reported the failure and when a second aircraft report might be obtained.
  - (b) Record the incident on FAA Form 7230-4.
- b. When an aircraft reports a GPS/GNSS anomaly:
  1. Request the following information:
    - (a) Aircraft call sign and type aircraft.
    - (b) Date and time of the occurrence.
    - (c) Location of anomaly.
    - (d) Altitude.
  2. Record the incident on FAA Form 7230-4.

3. Forward this information to the Traffic Management Unit (TMU) and Technical Operations personnel.

c. When an aircraft reports a WAAS anomaly, request the following information and/or take the following actions:

1. Determine if the pilot has lost all WAAS service.

**EXAMPLE-**

*“Are you receiving any WAAS service?”*

2. If the pilot reports receipt of any WAAS service, acknowledge the report and continue normal operations.

3. If the pilot reports loss of all WAAS service, report as a GPS anomaly using procedures in paragraph 4-1-6b.

#### **4-1-7. NAVAID FLIGHT CHECK**

Provide maximum assistance to aircraft engaged in flight inspection of NAVAIDs. Unless otherwise agreed to, maintain direct contact with the pilot and provide information regarding known traffic in the area and request the pilot’s intentions.

**NOTE-**

1. *Many flight inspections are accomplished using automatic recording equipment. An uninterrupted flight is necessary for successful completion of the mission. The workload for the limited number of aircraft engaged in these activities requires strict adherence to a schedule.*

2. *Flight inspection operations which require special participation of ground personnel, specific communications, or radar operation capabilities are considered to require special handling. These flights are coordinated with appropriate facilities before departure.*

## Section 2. Data Recording

### 4-2-1. TYPES OF DATA RECORDED

- a. Operational system entries for:
  1. Flight plans and related messages.
  2. Logging pilot briefings and aircraft contacts.
  3. Service A/B messages.
- b. Manual strip marking.

### 4-2-2. METHODS OF RECORDING DATA

a. Except as provided in 4-2-2b, all entries must be made directly into the operational system.

b. Locally approved procedures may be used to manually record data during heavy traffic periods or system outages. Aircraft contact information should be logged in the operational system as soon as practical.

c. Use control/clearance symbols, abbreviations, location identifiers, and contractions for recording position reports, traffic clearances, and other data. When recording data either electronically or manually, you may use:

1. Plain language markings to supplement data when it will aid in understanding the recorded information.

2. Locally approved contractions and identifiers for frequently used terms and local fixes not listed in either FAAO JO 7340.2, Contractions, or FAAO JO 7350.8, Location Identifiers. Use only within your facility, not on data or interphone circuits. All locally approved contractions and identifiers must be placed in facility files for record and reference purposes.

d. When recording data manually, use the standard hand-printed characters shown in [FIG 4-2-1](#) to prevent misinterpretation.

FIG 4-2-1

Hand-Printed Characters Chart

Typed	Hand Printed
A	A
B	B
C	C
D	D
E	E
F	F
G	G
H	H
I	I
J	J
K	K
L	L
M	M
N	N
O	O
P	P
Q	Q
R	R
S	S
T	T
U	U
V	V
W	W
X	X
Y	Y
Z	Z
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
0	0

**NOTE-**

A slant line crossing through the numeral zero and an underline of the letter “S” on handwritten portions of flight progress strips are required only when there is reason to believe the lack of these markings could lead to a misunderstanding. A slant line through the numeral zero is required on all weather data.

- e. To correct or update data, draw a horizontal line through it and write the correct information adjacent to it.
- f. Do not erase any item.

**4-2-3. IFR/VFR/DVFR FLIGHT PLAN RECORDING**

a. Use the operational system to record and file flight plans, flight plan modifications, cancellations, activations, and closures for appropriate distribution and processing. Detailed instructions are contained in the operational system manuals.

**NOTE-**

FSS operational systems contain the electronic equivalent of FAA Form 7233-1, Flight Plan.

b. When closing an active VFR flight plan, obtain departure point and destination if not already known.

**NOTE-**

A cancelled flight plan is one that is removed from a proposed list and has not been activated.

c. Flight plan information may initially be recorded on FAA Form 7233-1 or other paper prior to entry into the operational system.

**4-2-4. PILOT WEATHER REPORTS**

a. Enter PIREPS into the operational system in accordance with FAA Form 7110-2, PIREP Form. PIREPS may initially be recorded on the form or other paper prior to entry in the operational system.

**REFERENCE-**

FAAO JO 7110.10, Para 9-2-14, PIREP Preparation  
FAAO JO 7110.10, Para 9-2-15, PIREP Format

**4-2-5. LOGGING AIRCRAFT CONTACTS**

a. MIFC. Aircraft contacts and inflight briefings are logged and stored on the DD file for accountability. The required elements are:

1. Inflight Briefing (IB).
2. Type of Flight (TOF).
3. Type of Service (TOS).
4. ACID.
5. Remarks.

**EXAMPLE-**

IB (TOF),(TOS),(ACID), REMARKS.

**NOTE-**

If current partial exists, ACID is optional. (See TBL 4-2-1.)

**TBL 4-2-1  
Type of Flight**

TOF	(TYPE OF FLIGHT)
IC	IFR AIR CARRIER
IG	IFR GENERAL
IM	IFR MILITARY
IT	IFR AIR TAXI
VC	VFR AIR CARRIER
VG	VFR GENERAL
VM	VFR MILITARY
VT	VFR AIR TAXI
Example: “IGI” = IFR General ICAO.	
For DVFR, replace “V” with “D.”	
For ICAO, add “I” to TOF.	
TOS (TYPE OF SERVICE)	
A	ACFT contact & airport advisory
AB	ACFT contact, airport advisory & briefing
B	ACFT contact & briefing
BLANK	ACFT contact

(See TBL 4-2-2.)

**TBL 4-2-2  
Contacts & Inflight Briefings**

CB	This is used to log general information in the DD file without adding to the traffic count. Current partial is by-passed.
IB DG,,N1234, "Remarks"	ACFT contact, DVFR General, ACID in current partial by-passed.
IB IG,,,ALSTG	ACFT contact, IFR General, Remarks.
IB IGI,B,N1,VNR	ACFT contact, IFR General ICAO, Briefing, ACID in current partial by-passed, Remarks.
IB VM,B,, "Remarks"	ACFT contact, VFR Military, Briefing.
IB VG,A,, "Remarks"	ACFT contact, VFR General, Airport Advisory.
IB ,,N1,Remarks	This is used to log additional radio contacts.

b. OASIS. Aircraft contacts and inflight briefings are logged and stored in the history files for accountability.

**NOTE-**

*ACID and Flight Rules are required to log an inflight briefing or aircraft contact.*

c. In the REMARKS block, locally approved contractions and identifiers may be used for frequently used terms not listed in either FAAO JO 7340.2, Contractions or FAAO JO 7350.8, Location Identifiers.

d. If the inflight position is recorded, you may limit entries in the REMARKS to those necessary for your use.

**4-2-6. FLIGHT PROGRESS STRIPS (FAA FORMS 7230-21 AND 7233-5)**

a. When officially used to record inflight data, use flight progress strips to record:

1. Aircraft contacts.
2. ATC clearances.
3. Pilot briefings on airborne aircraft.
4. Other operationally significant items.

b. Use one flight progress strip for each flight, and record all contacts with that flight on the same strip. If supplemental strips are needed for additional writing space, keep the original and supplemental strips together and consider them as one strip.

**4-2-7. FLIGHT PROGRESS STRIPS AND ENTRY DATA**

a. Flight progress strip. (See FIG 4-2-2.)

**FIG 4-2-2  
Flight Progress Strip**

	1	2	3	10	12	13	14						
4	5			11									
6	7	8	9										

b. Flight progress strip entry. (See FIG 4-2-3.)

FIG 4-2-3  
Strip Entry 1

N123E	R214/R	150	1V	1615	AVFP	
				55	O/CRP	PB DFW S C I
MFE	CRP			1740	♀ LNDG SAT AWX ✓	VNR
AUS	1610/1820/2110					

AA FORM 7230-21 (4-75)

FIG 4-2-4  
Strip Entry 2

N3456Y	BE35		V →	1941	O/SAT E 1+00 ✓	REQ UA
				55	32E SAT OVC65	PB PPSN-HOU
LFT	/ / /					

A FORM 7230-21 (4-75)

FIG 4-2-5  
Flight Progress Strip

ADDRESS				13	14
TEXT OF FLIGHT NOTIFICATION MESSAGE					
	10	11	12		

Flight progress strip Item and Information.  
(See [TBL 4-2-3](#).)

**TBL 4-2-3**  
**Item and Information**

<i>Item</i>	<i>Information</i>
1	ACID (To identify IFR aircraft piloted by solo USAF under-graduate pilot, the letter Z will be added to aircraft ID on the flight progress strip. Do not use the suffix in ground-to-air communications.)
2	Type of aircraft/special equipment.
3	TAS and altitude (IFR). Altitude (VFR/DVFR, if known).
4	Departure point.
5	Route of flight.
6	Destination.
7	Actual departure time, or Time VFR flight plan activated.
8	ETA at destination.
9	Estimated time of fuel exhaustion.
10	Type of flight.
11	Action time; e.g., overdue time, fuel exhaustion time, LR contact time.
12	Time of contact with pilot.
13	Information received from pilot/another facility.
14	Data issued to the aircraft.

Flight progress strip abbreviation. (See [TBL 4-2-4](#))

**TBL 4-2-4**  
**Abbreviation**

<i>Abbreviation</i>	<i>Meaning</i>
→	Over Flight.
↓	Inbound Flight.
↗	Outbound Flight.
I	IFR.
IR	Island Reporting.
D	DVFR.
LR	Lake Reporting.
S	SVFR.
V	VFR.
MR	Mountain Reporting.
SR	Swamp Reporting.

Flight progress strip abbreviation. (See [TBL 4-2-5](#))

**TBL 4-2-5**  
**Abbreviation**

<i>Abbreviation</i>	<i>Meaning</i>
A	AIRMET (WA).
AA	Airport Advisory.
CWT	Caution Wake Turbulence.
DA	Decided Against Flight.
DD	Decided to Delay Flight.
DW	Downwind.
FP	Filed Flight Plan.
IC	Incomplete Briefing.
PB	Pilot Brief.
RY	Runway.
S	SIGMET (WS) and/or Convective SIGMET (WST).
VNR	VFR Flight not recommended (Pilot Brief).

c. Record ATC instructions and clearances completely and exactly.

d. Summarize other data using approved symbols and contractions.

e. Do not record issuance of altimeter setting unless that is the only information provided during the contact.

f. When flight notification messages are used to record flight progress data, cut or tear the paper to fit the strip holder. Enter items 10 through 14 in the corresponding numbered location illustrated in [FIG 4-2-4](#).

#### 4-2-8. AIRCRAFT CONTACTS

a. Inflight and flight watch contacts may be logged in the operational system, on flight progress strips, or on facility approved alternate forms.

b. When using flight progress strips, if the station has the aircraft's flight plan, enter "FP" in item 14 on the strip to show the flight plan is on file at the facility.

c. If there is no flight plan on file for the aircraft, the following must be obtained:

1. ACID.
2. Type of flight.
3. Time of contact.

4. Other items which are operationally significant.

d. If the inflight position is recorded, you may limit entries in the aircraft contact portion of the strip to those necessary for your use.

**TBL 4-2-6**  
**Clearance Abbreviation**

<i>Abbreviation</i>	<i>Meaning</i>
A	Cleared to airport (point of intended landing).
B	Center clearance delivered.
C	ATC clears (when clearance relayed through non-ATC facility).
CAF	Cleared as filed.
D	Cleared to depart from the fix.
F	Cleared to the fix.
H	Cleared to hold and instructions issued.
L	Cleared to land.
N	Clearance not delivered.
O	Cleared to the outer marker.
PD	Cleared to climb/descend at pilot's discretion.
Q	Cleared to fly specified sectors of a NAVAID defined in terms of courses, bearings, radials, or quadrants within a designated radius.
T	Cleared through (for landing and takeoff through intermediate point).
V	Cleared over the fix.
X	Cleared to cross (airway, route, radial) at (point).
Z	Tower jurisdiction.

#### 4-2-9. CONTROL SYMBOLOGY

a. Use authorized control and clearance symbols

or abbreviations for recording clearances, reports, and instructions.

b. The following tables contain abbreviation and control information symbols. (See [TBL 4-2-6](#) and [TBL 4-2-7](#).)

**TBL 4-2-7**  
**Miscellaneous Abbreviation**

<i>Abbreviation</i>	<i>Meaning</i>
BC	Back course approach.
CT	Contact approach.
FA	Final approach.
GPS	GPS approach.
I	Initial approach.
ILS	ILS approach.
MA	Missed approach.
MLS	MLS approach.
NDB	Nondirectional radio beacon approach.
OTP	VFR conditions-on-top.
PA	Precision approach.
PT	Procedure turn.
RH	Runway heading.
RP	Report immediately upon passing (fix/altitude).
RX	Report crossing.
SA	Surveillance approach.
SI	Straight-in approach.
TA	TACAN approach.
TL	Turn left.
TR	Turn right.
VA	Visual approach.
VR	VOR approach.

## Section 3. Radio Communications

### 4-3-1. FREQUENCY USE

a. Use radio frequencies for the specific purposes for which they are assigned. A frequency may be used for more than one function when required. Use the minimum number of frequencies to conduct communications. Request pilots file flight plans on discrete frequencies when possible.

b. Monitor assigned radio frequencies continuously. Keep speaker volumes at a level sufficient to hear all transmissions.

### 4-3-2. AUTHORIZED TRANSMISSIONS

a. Transmit only those messages necessary for safe and efficient use of the National Airspace System (NAS).

1. Relay operational information to an aircraft or its company, as requested, when abnormal conditions necessitate such requests. Do not agree to handle such messages on a regular basis.

2. Relay official FAA messages as required.

b. Inform an aircraft of the source of any message you relay from an airport manager, a military commander, or other appropriate authority.

c. Use the words or phrases in radio communications as contained in the Pilot/Controller Glossary.

### 4-3-3. RADIO MESSAGE FORMAT

Initiate radio communications with an aircraft by using the following format:

a. Initial call up.

1. State the prefix "November" when establishing initial communications with U.S. Registered aircraft followed by the phonetic pronunciation of the numbers/letters of the aircraft registration.

2. Identification of the calling unit.

3. The type of message to follow when this will assist the pilot.

4. The word over, if required.

#### EXAMPLE-

*"November Three Four Seven Seven Papa, Fort Worth*

*Radio, over."*

*"November Three Four Seven Seven Papa, Fort Worth Radio, A-T-C clearance, over."*

b. Replying to call up from aircraft.

1. Identification of the aircraft initiating the call up. Use the full identification in reply to aircraft with similar sounding identifications. For other aircraft, use the same identification the pilot used in initial call up; then use the correct identification after communications have been established.

2. Identification of the replying unit.

3. The word over, if required.

c. The word heavy shall be used as part of the identification in communications with or about heavy jet aircraft when providing airport advisories.

#### PHRASEOLOGY-

*UNITED FIFTY-EIGHT HEAVY*

#### NOTE-

1. Most airlines will use the word heavy following the company prefix and trip number when establishing communications or when changing frequencies.

2. When in radio-telephone communications with "Air Force One," do not add the heavy designator to the call sign. State only the call sign "Air Force One" regardless of the type of aircraft.

d. Preface a clearance or instruction intended for a specific aircraft with the identification of that aircraft.

e. Emphasize appropriate digits, letters, or similar sounding words to aid in distinguishing between similar sounding aircraft identifications. Additionally, notify each pilot concerned when communicating with aircraft having similar sounding identifications.

#### EXAMPLE-

*"American Five Twenty-one and American Twenty-one, transmissions being made to each of you on this frequency."*

*"Advisory to Cessna One Three Two Four, transmissions to Cessna One Two Three Four also being made on this frequency."*

### 4-3-4. ABBREVIATED TRANSMISSION

Transmissions may be abbreviated as follows:

a. Use the identification prefix and the last three digits or letters of the aircraft identification after communications have been established and type of aircraft is known. Do not abbreviate similar sounding aircraft identifications or the identification of an air carrier or other civil aircraft having an FAA authorized call sign.

b. Omit the facility identification after communication has been established.

c. Transmit the message immediately after the callup (without waiting for the aircraft's reply) when the message is short and receipt is generally assured.

d. Omit the word over, if the message obviously requires a reply.

#### 4-3-5. ROUTINE RADIO CONTACTS

Record information received from or given to the pilot. Prior to terminating the contact, provide the following information:

a. *Weather Advisory.* When a weather advisory is in effect, such as a WA, WS, WST, CWA, or AWW, which pertains to an area within 150 miles of the aircraft's position, obtain the route and destination if not already known. Deliver the advisory if it is pertinent and the pilot indicates that it has not been received previously.

b. *Shifting to Flight Watch.* During hours of Flight Watch operation, inflight specialists must recommend shifting to the flight watch frequency for en route advisories when weather conditions in an area along the pilot's route of flight so dictate. An example would be a pilot flying into an area of marginal weather farther along the route. It would be advantageous for the pilot to contact the flight watch specialist to pursue an alternate course of action should the need arise.

**PHRASEOLOGY-**  
*FOR ADDITIONAL EN ROUTE WEATHER, CONTACT FLIGHT WATCH (frequency).*

c. *NOTAM.* When the destination is in your station's flight plan area, inform the pilot of any pertinent NOTAM.

d. *Altimeter Setting.*

1. If the aircraft is operating below 18,000 feet MSL, issue current altimeter setting obtained from direct reading instruments or received from weather

reporting stations. Use the setting for the location nearest the position of the aircraft.

2. If the aircraft is arriving or departing a local airport served by an operating control tower, issue altimeter setting on request only.

3. Aircraft arriving or departing from a nontowered airport which has a commissioned ASOS/AWOS, with ground-to-air capability, must be advised to monitor the ASOS/AWOS frequency for the altimeter setting.

**PHRASEOLOGY-**

*MONITOR (airport) ASOS/AWOS FOR CURRENT ALTIMETER.*

**NOTE-**

*This requirement is deleted if the pilot states, on initial contact, that he/she has the automated weather.*

4. When the barometric pressure is greater than 31.00 inches Hg., Flight Standards will implement high barometric pressure procedures by NOTAM defining the geographic area affected. When this occurs, use the following procedures:

(a) IFR aircraft. Issue the altimeter setting and advise the pilot that high pressure altimeter setting procedures are in effect. Control facilities will issue specific instructions when relaying IFR clearances and control instructions through AFSS/FSS facilities when the altimeter is above 31.00 inches Hg.

(b) VFR aircraft. Issue the altimeter setting. Advise the pilot that high pressure altimeter setting procedures are in effect and to use an altimeter setting of 31.00 inches Hg. en route.

**PHRASEOLOGY-**

*ALTIMETER IN EXCESS OF THREE ONE ZERO ZERO. HIGH PRESSURE ALTIMETER SETTING PROCEDURES ARE IN EFFECT.*

**NOTE-**

*Airports unable to accurately measure barometric pressures above 31.00 inches Hg. will report the barometric pressure as missing or in excess of 31.00 inches Hg. Flight operations to or from those airports are restricted to VFR weather conditions.*

**REFERENCE-**

*AIM, Chapter 7, Section 2, and FAAO JO 7110.65, Para 2-6-2, Hazardous Inflight Weather Advisory Service (HIWAS).*

e. *Incorrect Cruising Altitude.* If the aircraft is operating VFR at an altitude between 3,000 feet AGL to, but not including FL180, and reports at an incorrect cruising altitude for the direction of flight, issue a VFR cruising altitude advisory.

**PHRASEOLOGY-**  
**V-F-R CRUISING LEVELS FOR YOUR DIRECTION**  
**OF FLIGHT ARE: (Odd/Even) ALTITUDES PLUS FIVE**  
**HUNDRED FEET.**

**NOTE-**  
*Facilities located in those areas where VFR altitude separation is below 3,000 feet AGL or above FL 180 shall provide appropriate phraseology examples for local use.*

**f. Altimeter Setting in Millibars.** If a request for the altimeter setting in millibars is received, use the setting for the location nearest the position of the aircraft and convert to the millibar equivalent value using the millibar conversion chart. If the millibar setting is not a whole number, always round down. (See [TBL 4-3-1.](#))

**TBL 4-3-1**

**Millibar Conversion Chart**

MILLIBAR CONVERSION CHART															
inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars
27.50	931.3	28.00	948.2	28.50	965.1	29.00	982.1	29.50	999.0	30.00	1015.9	30.50	1032.8	31.00	1049.8
27.51	931.6	28.01	948.5	28.51	965.5	29.01	982.4	29.51	999.3	30.01	1016.3	30.51	1033.2	31.01	1050.1
27.52	931.9	28.02	948.9	28.52	965.8	29.02	982.7	29.52	999.7	30.02	1016.6	30.52	1033.5	31.02	1050.5
27.53	932.3	28.03	949.2	28.53	966.1	29.03	983.1	29.53	1000.0	30.03	1016.9	30.53	1033.9	31.03	1050.8
27.54	932.6	28.04	949.5	28.54	966.5	29.04	983.4	29.54	1000.3	30.04	1017.3	30.54	1034.2	31.04	1051.1
27.55	933.0	28.05	949.9	28.55	966.8	29.05	983.7	29.55	1000.7	30.05	1017.6	30.55	1034.5	31.05	1051.5
27.56	933.3	28.06	950.2	28.56	967.2	29.06	984.1	29.56	1001.0	30.06	1017.9	30.56	1034.9	31.06	1051.8
27.57	933.6	28.07	950.6	28.57	967.5	29.07	984.4	29.57	1001.4	30.07	1018.3	30.57	1035.2	31.07	1052.2
27.58	934.0	28.08	950.9	28.58	967.8	29.08	984.8	29.58	1001.7	30.08	1018.6	30.58	1035.6	31.08	1052.5
27.59	934.3	28.09	951.2	28.59	968.2	29.09	985.1	29.59	1002.0	30.09	1019.0	30.59	1035.9	31.09	1052.8
27.60	934.6	28.10	951.6	28.60	968.5	29.10	985.4	29.60	1002.4	30.10	1019.3	30.60	1036.2	31.10	1053.2
27.61	935.0	28.11	951.9	28.61	968.8	29.11	985.8	29.61	1002.7	30.11	1019.6	30.61	1036.6	31.11	1053.5
27.62	935.3	28.12	952.3	28.62	969.2	29.12	986.1	29.62	1003.0	30.12	1020.0	30.62	1036.9	31.12	1053.8
27.63	935.7	28.13	952.6	28.63	969.5	29.13	986.5	29.63	1003.4	30.13	1020.3	30.63	1037.3	31.13	1054.2
27.64	936.0	28.14	952.9	28.64	969.9	29.14	986.8	29.64	1003.7	30.14	1020.7	30.64	1037.6	31.14	1054.5
27.65	936.3	28.15	953.3	28.65	970.2	29.15	987.1	29.65	1004.1	30.15	1021.0	30.65	1037.9	31.15	1054.9
27.66	936.7	28.16	953.6	28.66	970.5	29.16	987.5	29.66	1004.4	30.16	1021.3	30.66	1038.3	31.16	1055.2
27.67	937.0	28.17	953.9	28.67	970.9	29.17	987.8	29.67	1004.7	30.17	1021.7	30.67	1038.6	31.17	1055.5
27.68	937.4	28.18	954.3	28.68	971.2	29.18	988.1	29.68	1005.1	30.18	1022.0	30.68	1038.9	31.18	1055.9
27.69	937.7	28.19	954.6	28.69	971.6	29.19	988.5	29.69	1005.4	30.19	1022.4	30.69	1039.3	31.19	1056.2
27.70	938.0	28.20	955.0	28.70	971.9	29.20	988.8	29.70	1005.8	30.20	1022.7	30.70	1039.6	31.20	1056.6
27.71	938.4	28.21	955.3	28.71	972.2	29.21	989.2	29.71	1006.1	30.21	1023.0	30.71	1040.0	31.21	1056.9
27.72	938.7	28.22	955.6	28.72	972.6	29.22	989.5	29.72	1006.4	30.22	1023.4	30.72	1040.3	31.22	1057.2
27.73	939.0	28.23	956.0	28.73	972.9	29.23	989.8	29.73	1006.8	30.23	1023.7	30.73	1040.6	31.23	1057.6
27.74	939.4	28.24	956.3	28.74	973.2	29.24	990.2	29.74	1007.1	30.24	1024.0	30.74	1041.0	31.24	1057.9
27.75	939.7	28.25	956.7	28.75	973.6	29.25	990.5	29.75	1007.5	30.25	1024.4	30.75	1041.3	31.25	1058.2
27.76	940.1	28.26	957.0	28.76	973.9	29.26	990.8	29.76	1007.8	30.26	1024.7	30.76	1041.6	31.26	1058.6
27.77	940.4	28.27	957.3	28.77	974.3	29.27	991.2	29.77	1008.1	30.27	1025.1	30.77	1042.0	31.27	1058.9
27.78	940.7	28.28	957.7	28.78	974.6	29.28	991.5	29.78	1008.5	30.28	1025.4	30.78	1042.3	31.28	1059.3
27.79	941.1	28.29	958.0	28.79	974.9	29.29	991.9	29.79	1008.8	30.29	1025.7	30.79	1042.7	31.29	1059.6
27.80	941.4	28.30	958.3	28.80	975.3	29.30	992.2	29.80	1009.1	30.30	1026.1	30.80	1043.0	31.30	1059.9
27.81	941.8	28.31	958.7	28.81	975.6	29.31	992.6	29.81	1009.5	30.31	1026.4	30.81	1043.3	31.31	1060.3
27.82	942.1	28.32	959.0	28.82	976.0	29.32	992.9	29.82	1009.8	30.32	1026.8	30.82	1043.7	31.32	1060.6
27.83	942.4	28.33	959.4	28.83	976.3	29.33	993.2	29.83	1010.2	30.33	1027.1	30.83	1044.0	31.33	1061.0
27.84	942.8	28.34	959.7	28.84	976.6	29.34	993.6	29.84	1010.5	30.34	1027.4	30.84	1044.4	31.34	1061.3
27.85	943.1	28.35	960.0	28.85	977.0	29.35	993.9	29.85	1010.8	30.35	1027.8	30.85	1044.7	31.35	1061.6
27.86	943.4	28.36	960.4	28.86	977.3	29.36	994.2	29.86	1011.2	30.36	1028.1	30.86	1045.0	31.36	1062.0
27.87	943.8	28.37	960.7	28.87	977.7	29.37	994.6	29.87	1011.5	30.37	1028.4	30.87	1045.4	31.37	1062.3
27.88	944.1	28.38	961.1	28.88	978.0	29.38	994.9	29.88	1011.9	30.38	1028.8	30.88	1045.7	31.38	1062.6
27.89	944.5	28.39	961.4	28.89	978.3	29.39	995.3	29.89	1012.2	30.39	1029.1	30.89	1046.1	31.39	1063.0
27.90	944.8	28.40	961.7	28.90	978.7	29.40	995.6	29.90	1012.5	30.40	1029.5	30.90	1046.4	31.40	1063.3
27.91	945.1	28.41	962.1	28.91	979.0	29.41	995.9	29.91	1012.9	30.41	1029.8	30.91	1046.7	31.41	1063.7
27.92	945.5	28.42	962.4	28.92	979.3	29.42	996.3	29.92	1013.2	30.42	1030.1	30.92	1047.1	31.42	1064.0
27.93	945.8	28.43	962.8	28.93	979.7	29.43	996.6	29.93	1013.5	30.43	1030.5	30.93	1047.4	31.43	1064.3
27.94	946.2	28.44	963.1	28.94	980.0	29.44	997.0	29.94	1013.9	30.44	1030.8	30.94	1047.7	31.44	1064.7
27.95	946.5	28.45	963.4	28.95	980.4	29.45	997.3	29.95	1014.2	30.45	1031.2	30.95	1048.1	31.45	1065.0
27.96	946.8	28.46	963.8	28.96	980.7	29.46	997.6	29.96	1014.6	30.46	1031.5	30.96	1048.4	31.46	1065.4
27.97	947.2	28.47	964.1	28.97	981.0	29.47	998.0	29.97	1014.9	30.47	1031.8	30.97	1048.8	31.47	1065.7
27.98	947.5	28.48	964.4	28.98	981.4	29.48	998.3	29.98	1015.2	30.48	1032.2	30.98	1049.1	31.48	1066.0
27.99	947.9	28.49	964.8	28.99	981.7	29.49	998.6	29.99	1015.6	30.49	1032.5	30.99	1049.4	31.49	1066.4

#### 4-3-6. RADIO COMMUNICATIONS TRANSFER

Transfer radio communications by specifying the following:

a. The name of the facility to be contacted and the frequency.

**PHRASEOLOGY-**

*CONTACT (name of facility) ON (frequency).*

b. In situations where an aircraft will continue to communicate with your facility, use the following:

**PHRASEOLOGY-**

*CONTACT (name of service) ON (frequency).*

#### 4-3-7. ATC CLEARANCES, ADVISORIES, OR REQUESTS

a. Notify ATC via interphone of a pilot's request for clearance and include the departure and destination airports and, if appropriate, departing runway and time in the request. Relay, verbatim, ATC clearances, advisories, and requests received from the control facility. Give a time check to the nearest quarter minute when relaying a clearance that includes a release or void time.

**NOTE-**

*For ATC clearances, "verbatim" means exact control instructions, in the format stated in FAAO JO 7110.65, Air Traffic Control, Chapter 4, Section 2, Clearances, and Section 3, Departure Procedures.*

**PHRASEOLOGY-**

*Aircraft on the ground:*

*(Facility) RADIO, CLEARANCE REQUEST.*

*After go-ahead from ATC,*

*(Aircraft identification) DEPARTING (airport), RUNWAY (number if applicable) DESTINATION (fix or airport). (If applicable), CAN BE OFF AT (time).*

*Aircraft airborne:*

*(Facility) RADIO, CLEARANCE REQUEST.*

*After go-ahead from ATC:*

*(Aircraft identification), (position), (altitude), (route), AND (destination).*

b. Prefix all ATC clearances, advisories, or requests with the appropriate phrase "A-T-C CLEARS," "A-T-C ADVISES," etc.

c. When issuing information, relaying clearances, or instructions, ensure acknowledgement by the pilot.

d. If altitude, heading, or other items are read back by the pilot, ensure the readback is correct. If incorrect or incomplete, make corrections as appropriate.

**NOTE-**

*Pilots may acknowledge clearances, instructions, or information by using "Wilco," "Roger," "Affirmative," or other appropriate words or remarks.*

**REFERENCE-**

*Pilot/Controller Glossary.*

#### 4-3-8. DEPARTURE REPORTS

a. When an IFR aircraft reports airborne or is observed airborne, transmit the aircraft identification and departure time to the control facility from which the clearance was received.

**PHRASEOLOGY-**

*(Facility) RADIO. DEPARTURE. (Aircraft identification), (time).*

**NOTE-**

1. *This includes known VFR departure times of aircraft which are to obtain IFR clearances when airborne.*

2. *The requirement for transmitting departure reports may be omitted if requested by the IFR control facility, provided the procedures are specified in a Letter of Agreement.*

b. When an aircraft which has filed an IFR flight plan requests a VFR departure, facilitate the request as follows:

1. If the facility/sector responsible for issuing the clearance is unable to issue a clearance, inform the pilot and suggest that the delay be taken on the ground. If the pilot insists upon taking off VFR and obtaining an IFR clearance in the air, relay the pilot's intentions and, if possible, the VFR departure time to the facility/sector holding the flight plan.

2. After obtaining approval from the facility/sector responsible for issuing the IFR clearance, an aircraft planning IFR flight may be authorized to depart VFR. Inform the pilot of the proper frequency and, if appropriate, where or when to contact the facility responsible for issuing the clearance.

## Section 4. Airport Advisory Services

### 4-4-1. GENERAL

Airport advisory services are provided at airports without an operating control tower that have certified automated weather reporting via voice capability.

**a.** Local Airport Advisory (LAA) is a service provided by facilities, which are located on the landing airport, have ground-to-air communication on a discrete frequency or the tower frequency when the tower is closed, automated weather reporting with voice broadcasting, and a continuous ASOS/AWOS data display, other continuous direct reading instruments, or manual observations available to the specialist.

**b.** Remote Airport Advisory (RAA) is a remote service which may be provided by facilities, which are not located on the landing airport, but have ground-to-air communication on a discrete frequency or the tower frequency when the tower is closed, automated weather reporting with voice available to the pilot at the landing airport, and a continuous ASOS/AWOS data display, other direct reading instruments, or manual observation is available to the flight service specialist.

**c.** Remote Airport Information Service (RAIS) is a temporary service provided by facilities, which are not located on the landing airport, but have communication capability and automated weather reporting available to the pilot at the landing airport.

**d.** Final Guard Service is a value added service provided in conjunction with LAA/RAA only during periods of significant and fast changing weather conditions that may affect landing and takeoff operations.

**1.** When the pilot reports “On final” or “Taking the active runway,” the specialist shall provide the current wind direction, speed, and altimeter.

**2.** If during the operation conditions change and in the specialist’s opinion, the changing information might be useful to the pilot, the specialist shall broadcast the information in the blind.

**3.** Pilots will not be required or expected to acknowledge the broadcast.

#### **NOTE-**

FAA policy requires pilots to access the current automated weather prior to requesting any remote ATC services at nontowered airports. It is the pilot’s responsibility to comply with the Federal Aviation Regulations (FARs) if landing clearance is required.

**e.** During initial contact if the pilot indicates receipt of reports: “I have the automated weather,” do not provide weather information unless specifically requested by the pilot or a special report is transmitted.

#### **EXAMPLE-**

##### **RAIS:**

*Pilot - “Green Bay radio, Cessna 12RG, ten northeast, landing Eau Claire, request airport information, I have the automated weather.”*

*FSS - “Cessna 12RG, Eau Claire airport information, your traffic is a Cessna 172 entering downwind and a Convair 660 reported on final, both one minute ago. There is an airport maintenance vehicle . . .”*

**f.** If additional pilots initiate contact a short time after LAA/RAIS/RAA was provided, determine if the new pilot(s) copied the information when it was provided.

**1.** If the new pilot responds in the affirmative, do not repeat the information.

**2.** If the new pilot acknowledges the LAA/RAIS/RAA information then requests specific information, provide only the information requested.

#### **NOTE-**

*The intent is to reduce frequency clutter while insuring that the pilots are aware of the situation as it changes.*

**g.** If a pilot asks for LAA/RAIS/RAA at an airport where the requested service is not available but one of the three services is available, inform the pilot about what service is available, and provide the appropriate service.

#### **PHRASEOLOGY-**

*(Airport name) LOCAL AIRPORT ADVISORY IS NOT AVAILABLE. REMOTE AIRPORT INFORMATION . . .*

**h.** At airports where automated current weather is available to the pilot via ASOS/AWOS voice recording:

**1.** When the pilot indicates receipt of automated weather, provide the appropriate nonweather elements.

2. At airports with commissioned ASOS/AWOS with continuous automated voice capability, instruct the pilot to monitor the automated broadcast and advise intentions.

**PHRASEOLOGY-**

*MONITOR (location) ASOS/AWOS (frequency). ADVISE INTENTIONS.*

3. If the pilot reports the AWOS/ASOS is out of service, provide the last reported weather available.

i. If the pilot requests special VFR clearance, provide the appropriate elements and follow the procedures in Chapter 4, Section 5, Special VFR Operations.

j. Automatic Flight Information Service (AFIS) is available, confirm receipt of the current AFIS information if the pilot does not initially state the appropriate AFIS code. Issue the current AFIS information to pilots who are unable to receive the AFIS.

**EXAMPLE-**

*“Verify you have information ALFA.”*

**4-4-2. LAA/RAIS/RAA ELEMENTS AND PHRASEOLOGY**

a. State the airport name and the words, Airport Advisory, Airport Information, or Remote Advisory.

**PHRASEOLOGY-**

*(Airport name), AIRPORT ADVISORY . . . or (Airport name), AIRPORT INFORMATION . . . or (Airport name), REMOTE ADVISORY . . .*

b. Provide the information as appropriate, sequencing the elements in the following manner or to best serve the current traffic situation:

1. Final Guard is a value added wind and altimeter monitoring service provided in conjunction with LAA/RAA during periods of significant and/or fast changing weather conditions that may affect landing and takeoff operations. The specialist must monitor the remotized display of the current wind and altimeter. Provide Final Guard as follows:

(a) When the pilot reports “On final” or “Taking the active runway,” the specialist must provide the current wind direction, speed, and altimeter.

(b) If during the landing or takeoff operation conditions change and, in the specialist’s opinion, the changing information might be useful to the pilot, the

specialist must broadcast the new wind and/or altimeter information in the blind.

(c) Pilots will not be required or expected to acknowledge the broadcast.

**PHRASEOLOGY-**

*N12RG, WIND NOW (Direction) AT (Speed).*

**NOTE-**

*FAA policy requires pilots to access the current automated weather prior to requesting any remote ATC services at nontowered airports. It is the pilot’s responsibility to comply with the FARs if landing clearance is required. Final Guard is never provided with RAIS.*

2. The specialist must check the current wind data and provide the favored or designated runway information as follows:

(a) For takeoff and landing operations state the runway most nearly aligned into the wind.

(b) Inform the pilot when the current wind direction is varying enough that the selection of the favored runway may be affected, when there is more than 10 knots between peaks and lulls, or the pilot has requested the information.

(c) If there is no wind, state the runway currently in use, the runway favored by a shorter taxiway, or other local consideration.

(d) When airport management has designated a runway to be used under certain wind or other conditions (and has informed the FSS in writing) issue runway information accordingly.

(e) If the majority of the traffic has been using a runway other than the favored or designated runway, advise the pilot.

**EXAMPLE-**

*Landing airport has runways 27 (longer) and 32 with most pilots utilizing the shorter runway, “FAVORED RUNWAY THREE TWO, WIND VARIABLE BETWEEN TWO EIGHT ZERO AND THREE FOUR ZERO AT ONE FIVE GUSTS TWO EIGHT.”*

(f) When a pilot advises he/she will use a runway other than the favored or the designated runway, inform all known concerned traffic.

**PHRASEOLOGY-**

*ATTENTION ALL AIRCRAFT. (Aircraft type) DEPARTING/LANDING RUNWAY (number).*

(g) If a pilot requests the distance between an intersection and the runway end, furnish measured data from the local airport intersection takeoff diagram or other appropriate sources.

(h) The favored or designated runway is never provided with RAIS.

3. Traffic. Factual information about observed or reported traffic, which may constitute a collision hazard. This may include positions of aircraft inflight and/or aircraft and vehicles operating on the airport.

**PHRASEOLOGY-**

*TRAFFIC (Aircraft type), (position), (minutes) AGO.*

4. Altimeter Setting.

(a) LAA/RAA: Apply special procedures when the altimeter setting is more than 31.00 inches Hg. Stations with the capability of reading altimeter settings above 31.00 inches Hg. shall issue altimeter settings.

**PHRASEOLOGY-**

*ALTIMETER IN EXCESS OF THREE ONE ZERO ZERO. HIGH PRESSURE ALTIMETER SETTING PROCEDURES ARE IN EFFECT.*

(b) RAIS: Do not provide the altimeter unless specifically requested. Then, provide the altimeter from the last official weather report.

5. Weather. When the pilot does not have the weather conditions, issue the last reported or known weather information as follows:

(a) LAA/RAIS/RAA:

- (1) Wind direction and speed.
- (2) Altimeter (except RAIS).
- (3) Ceiling and visibility to VFR aircraft when less than basic VFR conditions exist.
- (4) Visibility to VFR aircraft when it is less than three miles in any quadrant.
- (5) Touchdown RVR/RVV for the runway in use where RVR/RVV readout equipment is located at the workstation providing the service.
- (6) To IFR aircraft executing an instrument approach or departure and to the appropriate control facility when visibility is less than 3 miles or when the ceiling is less than 1,000 feet or below the highest circling minimum, whichever is greater.

6. Weather advisory alert. Provide in accordance with subpara 4-3-5a.

**PHRASEOLOGY-**

*(Advisory description) IS CURRENT FOR (condition) OVER (area).*

7. Density Altitude.

(a) Facilities at airports with field elevations of 2,000 feet MSL or higher, transmit a density altitude advisory to departing general aviation aircraft whenever the temperature reaches the criteria contained in TBL 2-2-1.

**PHRASEOLOGY-**

*CHECK DENSITY ALTITUDE*

(b) Omit this advisory if pilot states the computation has been done or if the specialist is aware that a density altitude computation for that aircraft was included in the preflight briefing.

8. Wake Turbulence. Issue cautionary information to any aircraft if in your judgment wake turbulence may have an adverse effect on it.

**PHRASEOLOGY-**

*CAUTION WAKE TURBULENCE (traffic information).*

**NOTE-**

*Wake turbulence may be encountered by aircraft in flight as well as when operating on the airport movement area. Because wake turbulence is unpredictable, air traffic personnel are not responsible for anticipating its existence or effect.*

9. NOTAM. NOTAMs concerning local NAVAIDs and field conditions pertinent to flight.

**EXAMPLE-**

*"All runways covered by packed snow 6 inches deep."*

10. Braking Action. Furnish braking action reports as received from pilots or airport management to all aircraft as follows:

(a) Describe braking action using the terms fair, poor, or nil. If the pilot or airport management reports braking action in other than the foregoing terms, ask them to categorize braking action in these terms.

(b) When known, include the type of aircraft or vehicle from which the report is received.

**EXAMPLE-**

*"Braking action poor."*

*"Braking action poor, reported by a Cessna Four-Oh-One."*

(c) If the braking action report affects only a portion of a runway, obtain enough information from the pilot or airport management to describe braking action in terms easily understood by the pilot.

**EXAMPLE-**

*"Braking action poor first half of Runway Six, reported by a Gulfstream Two."*

*“Braking action poor Runway Two–Seven, reported by a Boeing Seven Twenty–Seven.”*

**NOTE-**

*Descriptive terms, such as first/last half of the runway, should normally be used rather than landmark descriptions, such as opposite the fire station, south of a taxiway.*

**11. Runway Friction.** Provide runway friction measurement readings/values as received from airport management to aircraft as follows:

(a) At airports with friction measuring devices, provide runway friction reports, as received from airport management, to pilots. State the runway number followed by the MU number for each of the three runway zones, the time of the report in UTC, and a word describing the cause of the runway friction problem.

**EXAMPLE-**

*“Runway two seven, MU forty-two, forty-one, twenty-eight at one zero one eight ZULU, ice.”*

(b) Issue the runway surface condition and/or the runway condition reading (RCR), if provided, to all USAF and ANG aircraft. Issue the RCR to other aircraft upon request.

**EXAMPLE-**

*“Ice on runway, R-C-R zero five, patchy.”*

**NOTE-**

*USAF has established RCR procedures for determining the average deceleration readings of runways under conditions of water, slush, ice, or snow. The use of RCR code is dependent upon the pilot’s having a “stopping capability chart” specifically applicable to his/her aircraft. USAF offices furnish RCR information at airports serving USAF and ANG aircraft.*

**12.** Do not approve or disapprove simulated instrument approaches.

#### **4-4-3. CHARTS**

Keep charts depicting runways, local taxi routes, intersection takeoff information, airport traffic patterns, and instrument approach procedures convenient to the airport advisory position.

#### **4-4-4. AUTHORIZED FREQUENCIES**

**a. LAA/RAA:**

**1.** Provide LAA/RAA on the appropriate discrete frequency at nontower locations and on the

tower local control frequency at an airport with a part-time tower when that facility is not operating.

**2.** If a pilot calls on another frequency, issue advisories on the frequency to which the pilot is listening, in addition to the appropriate LAA/RAA frequency.

**3.** Encourage the pilot to guard the LAA/RAA frequency or tower local control frequency within a 10-mile radius of the airport.

**NOTE-**

*In situations where the inflight position is split, advise pilot of appropriate frequency to obtain LAA/RAA/RAIS.*

**PHRASEOLOGY-**

*FOR FURTHER ADVISORY SERVICE AT (airport name), MONITOR (frequency) WITHIN ONE ZERO MILES.*

**b. RAIS:**

**1.** Provide RAIS on the existing discrete frequency located at the remote airport.

**2.** If a pilot calls and appears to be unaware that RAIS is available, offer the service.

**3.** If a pilot calls on another frequency, issue advisories on the frequency the pilot is listening, in addition to the appropriate LAA/RAA frequency.

**4.** If RAIS is requested when it is not offered, inform the pilot that the service is not available and follow para 4-4-5.

**NOTE-**

*This service is only provided at remote airports that have an existing discrete communications capability between the airport and the flight service station serving the airport and a NOTAM D announcing the availability of the service is in effect.*

#### **4-4-5. REQUEST FOR LAA/RAIS/RAA AT AIRPORTS WHERE THE SERVICES ARE UNAVAILABLE**

Advise the pilot that the requested LAA/RAIS/RAA service is not available. Provide CTAF frequency and/or the ASOS/AWOS frequency, when available. When not available, issue the last known surface condition and altimeter.

**PHRASEOLOGY-**

*(Airport name) AIRPORT ADVISORY or AIRPORT INFORMATION or REMOTE ADVISORY NOT AVAILABLE. CONTACT (airport name) CTAF (frequency).*

## Section 6. En Route Flight Advisory Service (EFAS)

### 4-6-1. GENERAL

The purpose of EFAS, radio call “FLIGHT WATCH” (FW), is to provide en route aircraft with timely and pertinent weather data tailored to a specific altitude and route using the most current available sources of aviation meteorological information.

### 4-6-2. POSITION RESPONSIBILITIES

Prior to assuming the duties of the flight watch position:

- a. Perform a thorough self-briefing by reviewing all available weather data.
- b. When relieving a specialist on the flight watch position, obtain a pre-duty briefing from the person being relieved.
- c. When appropriate, obtain a briefing of current and forecast weather within the flight watch area (FWA) from the CWSU of the associated ARTCC. (See para 4-6-5.)
- d. Maintain currency of weather conditions and trends while assigned the flight watch position by reviewing new or revised meteorological issuances and by observing weather trends contained in current weather reports and PIREPs.

### 4-6-3. OPERATING PROCEDURES

- a. Tailor en route flight advisories to the phase of flight that begins after climb out and ends with descent to land. Current weather and terminal forecast at the airport of first intended landing and/or the alternate airport shall be provided on request. When conditions dictate, provide information on weather for alternate routes and/or altitudes to assist the pilot in the avoidance of hazardous flight conditions. Advise the pilot to contact the adjacent flight watch facility when adverse weather conditions along the intended route extend beyond the FWA.
- b. EFAS shall not be used for routine inflight services; e.g., flight plan filing, position reporting, or full route (preflight) briefings. If a request for information is received that is not within the scope of EFAS, advise the pilot of the appropriate AFSS/FSS to contact.

### EXAMPLE-

“Cessna Four Seven Five Eight Xray, Cleveland Flight Watch, contact Altoona Radio on one two two point four to file your flight plan.”

- c. Suggest route or destination changes to avoid areas of weather which in the judgment of the specialist constitute a threat to safe flight.
- d. Alert the associated CWSU or WFO immediately of reported or observed significant weather that is not included in aviation forecasts.

### 4-6-4. FREQUENCIES

- a. Use frequency 122.0 MHz to provide EFAS to aircraft below FL 180.
- b. Use the assigned discrete frequency to provide EFAS to aircraft at FL 180 and above. This frequency can also be used for communications with aircraft below FL 180 when communication coverage permits.
- c. Aircraft operating at FL 180 or above that contact FW on frequency 122.0 MHz should be advised to change to the high altitude discrete frequency for EFAS.

### PHRASEOLOGY-

(Aircraft identification) (facility) *FLIGHT WATCH, FOR SERVICE AT YOUR ALTITUDE, CONTACT FLIGHT WATCH ON (frequency).*

- d. Avoid the simultaneous keying of two or more transmitters on the same frequency. This action can block or hinder communications.

### NOTE-

*Frequency 122.0 MHz RCF outlets are geographically located to ensure communications coverage at 5,000 feet AGL and above over the conterminous United States. High altitude discrete frequency RCF outlets are geographically located to ensure communications coverage between FL 180 and FL 450 over the EFAS facility’s area of responsibility. Communications practices should be guided by these restrictions.*

### 4-6-5. NWS SUPPORT TO EFAS

The NWS support function for EFAS is as follows:

- a. The associated CWSU is designated as the primary support facility for each EFAS facility. The CWSU should be contacted at least once per shift for

a general briefing of meteorological conditions which are impacting, or expected to impact, aviation weather within the FW/ARTCC area.

**NOTE-**

*Due to assigned priorities, the CWSU meteorologist may not be able to provide in-depth briefing service for up to 2 hours after the start of the first shift of the CWSU unit. (See FAAO JO 7210.3, Para 14-3-6, National Weather Service (NWS) Support, for establishment of operational support.)*

b. During the period when the CWSU is not available to provide consultation service, WFOs are responsible for responding to EFAS facility requests regarding weather conditions prevailing within the WFO area of responsibility. The EFAS specialist should contact the responsible WFO directly for clarification of forecasts or questions concerning products originated by the WFO.

**NOTE-**

*The ARTCC/EFAS area may encompass multiple WFO areas.*

c. Consult with the National Aviation Weather Advisory Unit (NAWAU), as appropriate, when further information or clarification is needed regarding SIGMET, convective SIGMET, AIRMET, and FA products.

#### **4-6-6. PILOT WEATHER REPORTS**

a. Actively solicit and disseminate PIREPs in accordance with Chapter 9, Section 2. Additionally, PIREPs concerning winds and temperature aloft, wind shear, turbulence, and icing must be solicited and disseminated when one or more of these conditions or criteria exists. Flight Watch specialists must solicit sufficient PIREPs to remain aware of flight conditions.

b. Maintain a graphic display of pertinent PIREPs within the FWA. Periodically review the display and actively solicit additional PIREPs when necessary to ensure completeness and accuracy of the information.

c. Requests for special solicitation of PIREPs from other facilities or the NWS must be honored as rapidly as operations permit.

#### **4-6-7. GRAPHIC WEATHER DISPLAY**

a. Prior to assuming flight watch duties, flight watch specialists must review, (if available) as a

minimum, the graphic information listed below. After assuming duties, the specialist must continue to review graphic and written data as needed during the watch to update and maintain a thorough knowledge of weather synoptic and forecast information affecting aviation operations.

1. Surface Analysis.
2. Weather Depiction Analysis.
3. National Weather Radar Summary.
4. Lifted Index Analysis.
5. Freezing Level Analysis.
6. 850 mb Upper Air Analysis.
7. 700 mb Upper Air Analysis.
8. 500 mb Upper Air Analysis.
9. 300 mb Upper Air Analysis.
10. 250 mb Upper Air Analysis.
11. 200 mb Upper Air Analysis.
12. 500 mb Heights and Vorticity Analysis.
13. 500 mb Heights and Vorticity Prognosis.
14. High Level Significant Weather Prognosis.
15. 12 and 24-hour Low Level Significant Weather Prognosis.
16. 36 and 48-hour Low Level Significant Weather Prognosis.
17. Maximum Temperature 24 and 36-hour Forecast.
18. Minimum Temperature 24 and 36-hour Forecast.
19. Winds Aloft Forecast.
20. Severe Weather Outlook.

b. Requests for special solicitation of PIREPs from other facilities or the NWS must be honored as rapidly as operations permit.

c. Access local and remote weather displays as necessary to maintain current knowledge of precipitation intensity, movement, and coverage. Provide pertinent real-time weather radar information that will directly impact the aircraft's flight.

**NOTE-**

*Specialist judgment should be exercised to determine if the pilot would be better served by more general information such as radar summary data when the aircraft is one hour or more from the destination airport.*

**4-6-8. INTERRUPTIONS TO SERVICE**

Notification of temporary outages, either equipment or operational, must be made in accordance with FAAO 7930.2, Notices to Airmen (NOTAM). In order to provide continuous service, notify the specialist responsible for the adjacent flight watch area of outages.

**4-6-9. EMERGENCIES**

**a.** Emergency situations shall be handled in accordance with Chapter 5.

**b.** When working an aircraft in an emergency situation over a remote outlet, the normal procedure is to provide assistance on the initial contact frequency. Flight watch specialists should bear in mind that air traffic facilities based at, or near to, the remote location may be in a better position to assist the pilot. A decision to affect a frequency change should be based on the situation and circumstances involved in the emergency.



# Chapter 5. Emergency Services

## Section 1. General

### 5-1-1. EMERGENCY DETERMINATION

a. Because of the infinite variety of possible emergency situations, specific procedures cannot be prescribed. However, when it is believed that an emergency exists or is imminent, take a course of action which appears to be most appropriate under the circumstances, and which most nearly conforms to the instructions in this manual.

b. An emergency can be either a DISTRESS or URGENCY condition, as defined in the Pilot/Controller Glossary.

**NOTE-**

*A pilot who encounters a DISTRESS condition may declare an emergency by beginning the initial communication with the word MAYDAY, preferably repeated three times. For an URGENCY condition, the word PAN-PAN may be used in the same manner.*

c. If the words MAYDAY or PAN-PAN are not used and there is doubt that a situation constitutes an emergency or potential emergency, handle it as though it is an emergency.

d. Consider an aircraft emergency exists and inform the appropriate control facility and the DF net control (See FAAO JO 7210.3, para 6-3-3, DF Net Control Position Operation), if not the same, when:

1. An emergency is declared by any of the following:

(a) The pilot.

(b) Facility personnel.

(c) Officials responsible for the operation of the aircraft.

2. Reports indicate that the aircraft's operating efficiency is so impaired that a forced landing may be/is necessary.

3. Reports indicate the crew has abandoned the aircraft or is about to do so.

4. Intercept or escort services are requested.

5. The need for ground rescue appears likely.

6. An Emergency Locator Transmitter (ELT) signal is heard or reported.

**REFERENCE-**

*Subpara 5-1-2c and para 5-2-8.*

### 5-1-2. RESPONSIBILITY

a. If in communication with an aircraft in distress, handle the emergency and coordinate and direct the activities of assisting facilities. Transfer this responsibility to another facility only when better handling of the emergency will result.

b. Upon receipt of information about an aircraft in distress, forward detailed data to the appropriate control facility in whose area the emergency exists.

**NOTE-**

*Notifying the appropriate control facility about a VFR aircraft emergency allows provision of IFR separation if considered necessary.*

c. The ARTCC is responsible for consolidation of all pertinent ELT signal information. Notify the ARTCC of all heard or reported ELT signals.

### 5-1-3. OBTAINING INFORMATION

Obtain enough information to handle the emergency intelligently. Base decisions about the type of assistance is needed on information and requests received from the pilot. 14 CFR Part 91 authorizes the pilot to determine a course of action.

### 5-1-4. COORDINATION

a. Request necessary assistance from other facilities as soon as possible, particularly if radar or DF service is available.

b. Coordinate efforts to the extent possible to assist any aircraft believed overdue, lost, or in emergency status.

### 5-1-5. PROVIDING ASSISTANCE

a. Provide maximum assistance to aircraft in distress. If the aircraft is transponder equipped and not on an IFR flight plan, request the pilot to squawk code 7700.

**PHRASEOLOGY-**

*REQUEST YOU SQUAWK SEVEN SEVEN ZERO ZERO.*

**b.** Enlist the service of available radar and DF facilities.

**5-1-6. RECORDING INFORMATION**

Record all actions taken in the provision of emergency assistance.

**5-1-7. SAFE ALTITUDES FOR ORIENTATIONS**

**a.** Providing a safe altitude, during an orientation,

is advisory in nature.

**b.** Safe altitude computations, once the aircraft position is known, are as follows:

**1.** Locate the maximum elevation figure on the appropriate VFR sectional chart.

**2.** To the maximum elevation figure,

**(a)** add 1,000 feet over nonmountainous terrain, or

**(b)** add 2,000 feet over mountainous terrain.

**3.** The mountainous/nonmountainous areas are found in Title 14 CFR, Part 95.

## Section 2. Operations

### 5-2-1. INFORMATION REQUIREMENTS

a. Start assistance as soon as enough information has been obtained upon which to act. Information requirements will vary, depending on the existing situation. Minimum required information for inflight emergencies is:

1. Aircraft identification, type, and transponder.
2. Nature of the emergency.
3. Pilot's desires.

b. After initiating action, provide the altimeter setting and obtain the following items or any other pertinent information from the pilot or aircraft operator as necessary:

1. Aircraft altitude.
2. Fuel remaining in time.
3. Pilot reported weather.
4. Pilot capability for IFR flight.
5. Time and place of last known position.
6. Heading since last known position.
7. Airspeed.
8. Navigation equipment capability.
9. NAVAID signals received.
10. Visible landmarks.
11. Aircraft color.
12. Number of people on board.
13. Point of departure and destination.
14. Emergency equipment on board.

### 5-2-2. FREQUENCY CHANGES

Provide assistance on the initial contact frequency. Change frequencies only when there is a valid reason. Advise the pilot to return to the initial frequency if unable to establish contact.

### 5-2-3. AIRCRAFT ORIENTATION

Orient an aircraft by the means most appropriate to the circumstances. Recognized methods include:

- a. Radar.
- b. DF.
- c. NAVAIDs.
- d. Pilotage.
- e. Sighting by other aircraft.

### 5-2-4. ALTITUDE CHANGE FOR IMPROVED RECEPTION

If deemed necessary, and if weather and circumstances permit, recommend the aircraft maintain or increase altitude to improve communications, radar, or DF reception.

### 5-2-5. ALERTING CONTROL FACILITY

When an aircraft is considered to be in emergency status, alert the appropriate control facility and forward the following information as available:

- a. Facility and person calling.
- b. Flight plan, including color of aircraft if known.
- c. Time of last transmission received, by whom, and frequency used.
- d. Last known position, estimated present position, and maximum range of flight of the aircraft based on remaining fuel and airspeed.
- e. Action taken by reporting facility and proposed action.
- f. Number of persons on board.
- g. Fuel status.
- h. Position of other aircraft near the aircraft's route of flight when requested.
- i. Whether an ELT signal has been heard or reported in the vicinity of the last known position.
- j. Other pertinent information.

### 5-2-6. VFR AIRCRAFT IN WEATHER DIFFICULTY

If a VFR aircraft requests assistance when it encounters or is about to encounter IFR weather conditions, request the pilot contact the appropriate control facility. Inform that facility of the situation.

If the pilot is unable to communicate with the control facility, relay information and clearances.

### 5-2-7. AIRCRAFT POSITION PLOTS

Plot the flight path of the aircraft on a chart, including position reports, predicted positions, possible range of flight, and any other pertinent information. Solicit the assistance of other aircraft known to be operating near the aircraft in distress. Forward the information to the appropriate control facility.

### 5-2-8. EMERGENCY LOCATOR TRANSMITTER (ELT) SIGNALS

When an ELT signal is heard or reported:

a. Notify the ARTCC, who will coordinate with the Rescue Coordination Center (RCC).

b. If the ELT signal report was received from an airborne aircraft, attempt to obtain the following information:

1. The aircraft altitude.
2. Where and when the signal was first heard.
3. Where and when maximum signal was heard.
4. Where and when signal faded or was lost.

Solicit the assistance of other aircraft known to be operating in the signal area for the same information. Relay all information obtained to the ARTCC.

c. Attempt to obtain fixes or bearings on the signal and forward any information obtained to the ARTCC.

#### **NOTE-**

*Fix information, in relation to a VOR or a VORTAC (radial distance), facilitates accurate ELT plotting by RCC and should be provided when possible.*

d. In addition to the above, when the ELT signal strength indicates the transmitter may be on the airport or in the vicinity, notify the on-site technical operations services personnel for their action.

e. Air traffic personnel shall not leave their required duty stations to locate an ELT signal source.

f. Attempt to locate the signal source by checking all adjacent airports not already checked by other ATC facilities for the following information:

1. Can ELT signal be heard.
2. Does signal strength indicate transmitter may be on airport.

3. Can attempt be made to locate and silence transmitter.

4. Advise the results of any action taken. Forward all information obtained and action taken to the ARTCC.

g. Notify the ARTCC if the signal source is located and whether the aircraft is in distress, plus any action taken or proposed for silencing the transmitter. Request person who located signal's source to attempt to obtain ELT make, model, etc., for relay to RCC via the ARTCC.

h. Notify the ARTCC if the signal terminates prior to location of the source.

#### **NOTE-**

1. *The ARTCC serves as the contact point for collecting information and coordinating with the RCC on all ELT signals.*

2. *Operational ground testing of ELT has been authorized during the first 5 minutes of each hour. To avoid confusing the tests with an actual alarm, the testing is restricted to no more than three audio sweeps.*

3. *Portable hand-carried receivers assigned to air traffic facilities (where no technical operations services personnel are available) may be loaned to responsible airport personnel or local authorities to assist in locating signal source.*

### 5-2-9. EXPLOSIVE CARGO

When you receive information that an emergency landing will be made with explosive cargo aboard, inform the pilot of the safest or least congested airport areas. Relay the explosive cargo information to:

- a. The emergency equipment crew.
- b. The airport management.
- c. The appropriate military agencies when requested by the pilot.

### 5-2-10. EXPLOSIVE DETECTION DOG HANDLER TEAMS

Take the following actions upon receipt of a pilot request for the location of the nearest explosive detection K-9 team.

a. Obtain the aircraft's identification and current position and advise the person in charge of the watch of the pilot's request.

b. Relay the pilot's request to the FAA Washington Operations Center, AEO-100, (202) 267-3333, and provide the aircraft identification and position.

# Chapter 6. Flight Data

## Section 1. General

### 6-1-1. COMMUNICATIONS SERVICE

Most flight movement data exchanged outside of the facility is processed by automated systems such as the National Airspace Data Interchange Network (NADIN). It is important to adhere to strict format and procedures during normal operations as well as system interruption periods.

a. Circuit interruption notifications should be as follows:

#### 1. AFSS.

(a) M1FC. Notify their FSDPS and appropriate telco servicing company of all outages.

(b) OASIS. Notify NADIN or WMSCR, (as appropriate), the Harris Help Desk, and appropriate telco servicing company of all outages.

#### **NOTE-**

*The FSDPS notifies NADIN for Service B outages or AWP for Service A outages, as well as the ARTCC Systems Engineer (SE).*

2. FSS. Notify their guard facility, the AISR Customer Service Center, and NADIN.

b. All outage reports should refer to the correct circuit and/or equipment identification numbers. Facilities should obtain and record ticket numbers provided by AISR or the telco authority.

#### **NOTE-**

*OASIS facilities should obtain and record ticket numbers provided by Harris or the telco servicing company.*

c. AISR and NADIN telephone numbers are as follows:

1. NADIN/ATLANTA (KATLYTYX)  
(770) 210-7675.

2. NADIN/SALT LAKE CITY (KSLCYTYX)  
(801) 320-2172.

3. AISR HELPDESK 866-466-1336.

d. OASIS telephone numbers are as follows:

1. WMSCR/ATLANTA 770-210-7931.

2. WMSCR/SALT LAKE CITY  
801-320-2045.

3. HARRIS HELPDESK 877-373-0110.

### 6-1-2. FLIGHT PLANS

The filing of VFR flight plans is recommended. Brief pilots, as appropriate, on the following:

a. Identify the tie-in station for the departure point, and advise the pilot to report departure time directly to that facility.

b. When a departure report is unlikely because of inadequate communications capability, advise the pilot that the flight plan will be activated immediately, using the proposed departure time as the actual departure time. Include "ASMD DEP" in remarks. The pilot is responsible for cancelling or extending the flight plan if the flight is cancelled or delayed.

c. Determine the flight plan area in which the destination is located. Request the pilot close the flight plan with the tie-in facility. Provide the pilot the tie-in facility/sector contact information upon request.

d. Recommend that a separate flight plan be filed for each leg of a VFR flight.

e. Request the pilot inform an AFSS/FSS whenever the filed time en route changes more than 30 minutes.

f. On return flights from remote areas, such as a fishing site, establish a mutually acceptable date/time with the pilot for alerting search and rescue.

g. On a single flight to be conducted under both IFR/VFR flight rules, confirm whether the VFR portion is by flight plan and, if so, with whom the pilot will close. File two separate flight plans.

h. If a pilot indicates the flight will penetrate Class A airspace, advise the pilot of the Class A requirements.

i. When a pilot files to an airport served by a part-time FSS and the ETA is during the period the facility is closed, ask the pilot to close with the associated AFSS/FSS, identified in FAO JO 7350.8, Location Identifiers and the Airport/Facility Directory.

**j.** Upon request, inform pilots filing IFR flight plans of the appropriate and most effective means of obtaining IFR departure clearances.

**k.** When a pilot files a DVFR flight plan, advise the pilot to activate with Flight Service. Also advise the pilot that a discrete beacon code will be assigned upon activation.

**NOTE-**

**1.** A discrete beacon code may be assigned when the flight plan is filed, as necessary. If the pilot wants to file a DVFR flight plan that departs outside the facility's flight plan area, provide the applicable toll-free number for the departure FSS.

**2.** Discrete beacon codes are assigned to facilities in accordance with FAAO 7110.66, National Beacon Code Allocation Plan.

### 6-1-3. FLIGHT PLAN DATA

Handle flight plan data as follows:

**a.** Record flight plan data on a domestic or ICAO flight plan form or electronic equivalent. Locally approved procedures may be used to manually record data prior to entry into the operational system. Flight plan data received from an operations office may be limited to only those items necessary for control or VFR flight plan purposes, provided the operations office obtains complete information on the flight.

**b.** Accept military flight plan proposals, cancellations, and closures from any source, including collect telephone calls.

**c.** Transmit flight notification messages using the appropriate operational system functions to place the message in the history file and provide automatic log and tally.

**NOTE-**

*Part-time operations offices must provide complete information in the event it is needed for SAR purposes.*

### 6-1-4. PART-TIME FSS CLOSURE ACTION

Part-time facilities shall forward the following information to the designated guard AFSS/FSS.

**a.** Inbound flights – all information.

**b.** Outbound flights – VFR and IFR flight plan data when proposed departure time and/or ETA is within the period from 1 hour prior to closing until 1 hour after opening.

**c.** All other pertinent information; e.g., NOTAM, pending outages.

### 6-1-5. TELEPHONE REQUESTS FOR ATC CLEARANCES

When a telephone request for an ATC clearance is received, positively verify the departure location by airport name or location identifier, and the city name and state.

**NOTE-**

**1.** *With telephone calls being received from larger geographic areas, verification of the departure location may prevent a critical safety situation involving similar or identical airport or city names possibly located in different states.*

**2.** *City refers to a city, town, village or publicly recognized place.*

**3.** *Refer to FAAO 7110.10, Para 4-3-7, ATC Clearances, Advisories, or Requests, for guidance on relaying ATC clearances.*

nates, as appropriate, to facilitate computer acceptance. Local procedures should be applied to these special situations.

2. NRS waypoints consist of five alphanumeric characters, which include the ICAO Flight Information Region (FIR) identifier, followed by the letter corresponding to the FIR subset (ARTCC area for the contiguous U.S.), the latitude increment in single digit or group form, and the longitude increment.

**EXAMPLE-**  
“KD34U”

i. *Item 9.* Destination. Enter two-to-twelve alphanumeric and/or slant characters for name or identifier of the destination airport or point over which the flight plan is to be cancelled.

j. *Item 10.* Estimated Time Enroute. Enter in hours and minutes the total elapsed time between departure and destination in four-digit format, i.e., 0215.

k. *Item 11.* Remarks. Information necessary for ATC or to assist search and rescue operations, plus any other data appropriate to the flight; e.g., the abbreviations FAA or DOT. Enter names of experimental or amateur-built aircraft (Veri-EZ, Long-EZ, Mustang, Delta Dart). For RM: field only - Use 1-80 characters beginning with \*, #, \$, or %. (See TBL 6-2-6.)

TBL 6-2-6

*	transmit remarks to all centers.
#	transmit remarks to departure centers only.
\$	transmit remarks only to those addresses in the CP field of the flight notification message.
%	for remarks not to be transmitted.

l. *Item 12.* Fuel on Board. Enter in hours and minutes in four-digit format; e.g., 0330.

m. *Item 13.* Alternate Airport/s. Enter the location identifier if specified by the pilot.

n. *Item 14.* Pilot’s Name, Telephone Number, Aircraft’s Home Base. Self-explanatory. For military pilots, obtain the name and telephone of BASOPS.

**NOTE-**

*Pilot’s name not required if BASOPS’ name is provided.*

o. *Item 15.* Number Aboard. Self-explanatory.

p. *Item 16.* Color of Aircraft. Use authorized contractions when available. (See TBL 6-2-7.)

TBL 6-2-7  
Code and Color

Code	Color	Code	Color
A	Amber	B	Blue
BE	Beige	BK	Black
BR	Brown	G	Green
GD	Gold	GY	Gray
M	Maroon	O	Orange
OD	Olive Drab	P	Purple
PK	Pink	R	Red
S	Silver	T	Tan
TQ	Turquoise	V	Violet
W	White	Y	Yellow

**NOTE-**

1. For ICAO flight plans, see Appendix A.
2. Local procedures may be developed for use on the reverse side of FAA Form 7233-1.

**6-2-2. OUTBOUNDS DEPARTING FROM OUTSIDE FLIGHT PLAN AREA**

Accept flight plans regardless of departure point. Forward VFR flight plan proposals for aircraft proposing to depart from outside the facility’s flight plan area to the tie-in facility/sector for the departure point. Insert the originator of the flight plan into the “Remarks” field. Transmit the proposed flight plan in the following format:

- a. Type of Flight.
- b. Aircraft Identification.
- c. Aircraft Type.
- d. Departure Point.
- e. Destination.
- f. Proposed Departure Time/ETE.
- g. Remarks.

**EXAMPLE-**

FF PAENYFYX  
DTG PAFAYFYX  
VFR N1234 BE9L ENA FAI P1330/0130 \$FP  
PAFAYFYX

**NOTE-**

*For civil flight movement messages with remarks, precede the remarks with a dollar symbol (\$).*

### 6-2-3. FLIGHT PLANS WITH AREA NAVIGATION (RNAV) ROUTES IN DOMESTIC U.S. AIRSPACE

Use FAA Form 7233-4, International Flight Plan, for pilots filing flight plans in domestic U.S. airspace if automatic assignment of any of the following RNAV routes are desired: RNAV Standard Instrument Departure (SID); RNAV Standard Terminal Arrival Route (STAR); and/or RNAV Point-to-Point (PTP). For these flight plans, adhere to the following guidelines:

**a.** Item 10, Equipment. Enter “Z” in the equipment field in addition to other entries pertaining to radio communication, navigation and approach aids.

**EXAMPLE-**  
SDGIWZ/S

**b.** Item 18, Other Information.

**1.** If the aircraft is RNAV 1 or RNAV 2 capable, enter “NAV/RNV” followed by the appropriate RNAV accuracy value:

- (a) RNAV 1 SID, enter “D1”.
- (b) RNAV 1 STAR, enter “A1”.
- (c) En route RNAV, enter “E2”.

**EXAMPLE-**  
NAV/RNVD1  
NAV/RNVA1  
NAV/RNVE2  
NAV/RNVD1A1  
NAV/RNVD1E2A1

**NOTE-**

*The “D,” “E,” and “A” characters may appear in any order following “NAV/RNV.”*

**2.** If the aircraft is RNAV PTP capable but not RNAV 1 and/or RNAV 2 capable, enter “RMK/PTP” and “NAV/RNVE99”.

**EXAMPLE-**  
RMK/PTP NAV/RNVE99

**NOTE-**

*Procedures contained in paragraph 6-2-3 do not apply to flights whose route remains entirely within Alaska domestic airspace.*

## Section 4. Flight Plan Handling

### 6-4-1. FLIGHT PLAN ACTIVATION

**a. AISR.** Handle departure reports as a routine radio contact in accordance with para 4-3-5, Routine Radio Contacts. If a departure report has not been received within 1 hour of the proposed departure time and specific arrangements have not been made to activate the flight plan, cancel and file the proposed flight plan.

**b. AFSS.** Handle departure reports as a routine radio contact in accordance with para 4-3-5.

**1. M1FC.** If a departure report has not been received or the pilot has not amended the P time, a VFR flight plan will remain on the proposed list until 2 hours past the proposed time. At this time it is automatically removed from the list and entered on the Aircraft Data File (DD).

**2. OASIS.** If a departure report has not been received or the pilot has not amended the ETD, a VFR flight plan will remain on the Proposed List for a predetermined facility parameter time interval. After this time it is automatically removed from the Proposed List and entered into a history file.

**c.** The AFSS Aircraft Data File (DD) is used for statistical and historical purposes. Movement messages, pilot briefs, and aircraft contacts are placed on the list automatically and are retained for the number of hours specified in the Aircraft Drop Interval (ADDI) parameter.

**NOTE-**

*OASIS. The OASIS history files are used for statistical and historical purposes. Movement messages, pilot briefings and aircraft contacts are recorded in these files automatically and are retained for 15 days.*

**d.** When a pilot reports a departure time that is more than 2 hours prior to the current clock time, request an updated ETE based on the aircraft's present position. M1FC/OASIS facilities amend the ETE in the existing flight plan, and activate the flight plan using the current time as the time of departure (M1FC/OASIS will automatically calculate the updated ETA) and inform the pilot of any changes.

### 6-4-2. DEPARTURE REPORT MESSAGE

When a pilot activates a flight plan with other than the tie-in station for the departure point, transmit a numbered message to the departure tie-in station.

**EXAMPLE-**

*AISR  
FF KRNOYFYX  
DTG KHONYFYX  
HON001 RNO  
N98765 D1645 WMC ALW*

**MIFC**

*ORIGIN:MMV PRECEDENCE:FF TIME: ACK:Y  
ADDR:RNO  
TEXT:N98765 D1645 WMC ALW*

**NOTE-**

**1. MIFC.** Origin may be left blank as MIFC will insert the origin station's address.

**2. OASIS.** This function is performed using the General Facility Message function and the origin may be left blank, as OASIS will insert the originating station's address.

### 6-4-3. ACKNOWLEDGING NUMBERED MESSAGES

Acknowledge a numbered message as soon as practicable after receipt. Prefix the acknowledgement with the letter R followed by a space and then the 3-digit message number.

**EXAMPLE-**

*AISR  
FF KMMVYFYX  
DTG KRNOYFYX  
R 001*

### 6-4-4. FLIGHT NOTIFICATION MESSAGE

**a.** When a departure report is received, or the pilot requests an assumed departure, transmit a flight notification message to the destination tie-in facility as specified in FAA Order JO 7350.8, Location Identifiers. Telephone or interphone, when available, may be used for flights of 30 minutes or less. The flight notification message must contain the following information:

1. Type of flight plan (VFR or IFR).
2. Aircraft identification.

3. Aircraft type.
4. Departure point.
5. Destination.
6. ETA (If more than 24 hours, may use DTG).
7. Remarks, preceded by a \$ sign (as appropriate).

**EXAMPLE-**  
 FF KBOIFYFX  
 DTG KCDCYFYX  
 VFR N2346F AC11/U PVU BOI 1348 \$ASMDDEP

**NOTE-**

1. The operational system will automatically format the required items and transmit the flight notification message when activated.

b. When the proposed flight plan is received from another FSS, BASOPS, or DUAT vendor and the departure facility has only partial flight plan data, add a remark indicating the Service B address of the facility holding the complete flight plan. Operational systems will automatically add this to the "Remarks" section of the flight plan.

**EXAMPLE-**  
 FF KBOIFYFX  
 DTG KCDCYFYX  
 VFR N12345 C182/U PVU BOI 1958 \$FP KIADXCLX

c. If the pilot elects to close the flight plan with a facility other than the designated tie-in facility, send the flight notification message with remarks to both tie-in facilities; for example, FIRIV FAI. The designated tie-in facility must assume both destination and search and rescue responsibility.

**EXAMPLE-**  
 FF PAENYFYX PAFAYFYX  
 DTG KJNUYFYX  
 VFR N2346F AC11 JNU FAI 1303  
 \$FIRIV ENA

**NOTE-**

The operational system will auto address to the tie-in facility. Because the pilot elected to FIRIV with ENA (a facility other than the tie-in facility), the message must also be manually addressed to ENA.

d. The facility with which the pilot elects to close the flight plan must forward a numbered closure message to the designated tie-in facility.

e. On civil flight plans, if the pilot advises of stopover points, show these in remarks.

**EXAMPLE-**  
 FF KBOIFYFX  
 DTG KCDCYFYX  
 VFR N12345 C182/U PVU BOI 1958 \$LNDG  
 TWF

f. On military flight plans, in remarks use coded data pertinent to services, passengers, or cargo. In the absence of remarks, enter the letter N (meaning none) in the remarks field.

**REFERENCE-**  
 DOD Flight Information Publication, General Planning Document.

1. Flight notification messages with remarks generate an alert alarm at designated workstations.

2. When landing at a civil airport, if there are no remarks with the flight notification message, it is placed on the Inbound List with no alerts for notification purposes.

3. When landing at a military airport, all flight notification messages generate an alert.

**EXAMPLE-**  
 FF KRCAYYYY  
 DTG KRIUYFYX  
 IFR DECAL01 T43/R SMF RCA 0135  
 \$AP3NP3S

FF KBOIFYFX  
 DTG KCDCYFYX  
 VFR R54321 2/UH1/U SLC BOI 1943 \$N

g. Address military stopover flight notification messages to and obtain acknowledgements from the destination tie-in facility serving all destinations.

1. For the first leg, transmit the items in subparas 6-4-4a and 6-4-4f.

2. For each subsequent leg, transmit the destination, ETE, and remarks applicable to that leg only, prior to (/). Remarks pertaining to the entire flight are entered in the "Remarks" section of the original flight plan and are transmitted to all addressees.

3. Separate stopover legs by inserting a slant (/) at the end of each leg except the last. Begin each leg on a new line.

**EXAMPLE-**  
 FF KANDYFYX KGNVYFYX KMIAYFYX  
 DTG KDCAYFYX  
 IFR VV12345 P3 ADW CHS 1300/  
 NIP 01+30 A5 BALL DP10 AP5 S/

*MIA 02+30 NO DE-ICING EQUIPMENT*

4. For composite flights, specify type flight plan as the first item of each leg.

5. When en route delays are involved, include delay time in ETE.

h. Apply military flight plan procedures to all civil aircraft landing at military bases.

**NOTE-**

*It is the civil pilot's responsibility to obtain permission (from military authorities) to land at a military base.*

i. Apply civil flight plan procedure to civil aircraft departing military bases and en route to civil airports.

**6-4-5. SUSPENDING FLIGHT NOTIFICATION MESSAGES**

a. Suspend the flight notification message or proposal message until acknowledgment is received from the addressee, then file in the completed file.

b. If an acknowledgment is not received within the following time period, use the telephone or interphone to assure delivery.

1. Thirty minutes after departure if ETE is between 30 minutes and 2 hours.

2. One hour before ETA if ETE is 2 hours or more.

3. Thirty minutes after departure if RONVIP information is contained in remarks of a military flight notification.

4. The message identification is the aircraft identification for flight notifications and/or the message number for all other message types.

5. Acknowledgments received via NADIN shall be automatically processed if they are in the proper format.

6. Improperly formatted acknowledgments will be directed to the Service B edit queue (B flag).

7. The S list will display the aircraft identification and message numbers in chronological order of transmission times (first transmitted being at the top) and the addressees for each message with an asterisk appearing next to those that have not acknowledged.

8. If a transmission has not been acknowledged by all addressees within 30 minutes, an asterisk will

automatically appear immediately preceding the message identification in the S list and an S flag is automatically displayed on the terminals enabled for Edit and Review Service B Communications (ERS) function.

9. When an S flag is displayed, use the ERS keyword to display the S list in the edit mode. Use the RT keyword to retransmit the message to addressees who have not acknowledged the message.

**EXAMPLE-**

*MIFC*

*RT N12345 (ACID as it appears on the S list)*

*RT 003 (MSG Number as it appears on the S list)*

10. When an acknowledgment message is received from any other source, such as interphone/telephone or facility guarding for the addressee, the specialist shall display the Edit and Review Suspense List (ERS) and use the AK keyword to acknowledge the message.

**EXAMPLE-**

*MIFC*

*AK DECAL01,KRCAYXX*

c. OASIS. Messages awaiting acknowledgment are suspended on the Suspense List. It contains a list of all numbered Service B messages and those messages transmitted from the flight plan dialog box not acknowledged by all the addressees.

1. The message identification is the aircraft identification for flight notifications and/or the message number for all other message types.

2. Acknowledgments received via NADIN shall be automatically processed if they are in the proper format.

3. Improperly formatted acknowledgments will be directed to the Facility Message List for editing and will generate an alarm at designated workstations.

4. The Suspense List will display the aircraft identification and message numbers in chronological order of transmission times (first transmitted being at the top) and the addressees for each message with an hourglass symbol appearing next to those that have not acknowledged.

5. If a transmission has not been acknowledged by all addressees within 30 minutes, the message is considered overdue (red icon) and will generate a Suspense alarm at designated workstations.

6. Upon receipt of a Suspense alarm, retransmit the message to addressees who have not acknowledged the message by selecting (highlighting) the addressee(s) and clicking the ReTransmit button.

7. When an acknowledgment message is received from any other source, such as interphone/telephone or facility guarding for the addressee, the specialist shall manually acknowledge the message by selecting (highlighting) the addressee and clicking the Ack button.

#### 6-4-6. ACKNOWLEDGING FLIGHT NOTIFICATION MESSAGES

Acknowledge a flight notification message or proposal as soon as practical after receipt. Prefix the acknowledgment with the letter R followed by a space and then the full aircraft identification.

##### EXAMPLE-

AISR

FF KRCAYYYY

DTG KRIUYFYX

R DECAL01

##### NOTE-

MIFC and OASIS will automatically acknowledge flight notification messages which are received in or have been edited into the correct format.

#### 6-4-7. ACTION BY ADDRESSEES

In addition to acknowledging receipt of the flight notification message, addressees must take the following actions:

##### a. Military IFR flights.

1. Notify BASOPS, if applicable, of the inbound flight.

2. Upon request, deliver flight plan amendments to the ARTCC.

3. File the flight notification message in the operational system history files or with the daily traffic.

4. Forward the actual departure time to the destination tie-in facility for the next destination.

##### b. Military VFR flights.

1. Notify BASOPS, if applicable, of the inbound flight.

2. Suspend the message, awaiting closure/cancellation/departure and assume destination station responsibility.

3. Forward the departure time to the destination tie-in facility, and assume departure station responsibility.

4. All flight notification messages are suspended on the Inbound List. An entry on the list will remain there until the flight plan is closed. Thirty minutes after the ETA, if the flight plan has not been closed, it is considered overdue and will generate an Inbound alert at designated workstations.

c. If no information is received (e.g., departure time, revised ETA) indicating that the flight is still active prior to the void time, note this on the flight notification message and file.

#### 6-4-8. MAJOR FLIGHT PLAN CHANGES FROM EN ROUTE AIRCRAFT

##### a. Change of Destination.

1. When a civil aircraft on a VFR flight plan or a military aircraft on any flight plan changes destination, obtain, as a minimum, the following information:

- (a) Type of flight plan.
- (b) Aircraft identification.
- (c) Aircraft type.
- (d) Departure point.
- (e) Old destination.
- (f) Present position.
- (g) Altitude and route.
- (h) New destination.
- (i) Estimated time en route.

##### NOTE-

1. MIFC. If the flight plan mask is used to transmit the flight notification in lieu of the TB mask, the flight notification goes on the suspense list, acknowledgments are processed automatically, and flight plan and acknowledgments are placed in the DD file.

2. OASIS. If the Flight Plan dialog box is used to transmit the flight notification in lieu of the General Facility Message, the flight notification goes on the Suspense List, acknowledgments are processed automatically, and flight plan and acknowledgments are placed in the history file.

2. Transmit a revised flight notification message to the departure station, original, and new destination tie-in stations containing the type of flight, aircraft identification, aircraft type, departure point, new destination, new ETA, and in Remarks, aircraft position and time, the words ORIG DESTN followed by the identifier of the original destination.

**EXAMPLE-**

*VFR Change of Destination:*

AISR

FF KBOIFYX KSEAYFYX

DTG KDCYFYX

VFR N98789 C182/U PVU GEG 2230 \$0VR

SLC 1900 ORIG DESTN BOI

MIFC

FR:V AI:N9878 AT:C182/U TS:130 DD:PVU TM:D1900

AE:105

RT:SLC..TWF..MLD..LWS..GEG

AD:GEG TE:0330 RM:\$0VR SLC 1900 ORIG

DESTN BOI

FB: AA: PD:

NB: CR: OP:

CP:KBOIFYX KSEAYFYX TA:2230

*IFR Change of Destination:*

AISR

FF KRCAYYX KTIKYYX KRIUYFYX

DTG KDCYFYX

IFR DECAL01 T43/R SMF TIK 0230 \$AP3NP3S OVR

SLC 2330 ORIG DESTN RCA

MIFC

FR:MI AI:DECAL1 AT:T43/R TS:400 DD:SMF

TM:D2330 AE:310

RT:SMF..SLC..GJT..AMA..OKC

AD:TIK TE:0300 RM:\$NP3 S OVR SLC 2330 ORIG

DESTN RCA

FB: AA: PD:

NB: CR: OP:

CP:KRCAYYX KTIKYYX KRIUYFYX TA:0230

**NOTE-**

1. MIFC. On VFR flight plans, MIFC will transmit and file the flight plan with the TS: and AE: fields blank. On IFR flight plans, these fields must be completed. If the TS: and AE: are unknown, 2 or 3 zeros may be used instead.

2. OASIS. If the Flight Plan dialog box is used to transmit VFR flight plans, OASIS will transmit and file the flight plan with the airspeed and en route altitude text boxes blank. For military IFR change of destination, use the General Facility Message to transmit changes to the closure points.

b. Change from IFR to VFR. When a civil aircraft changes from an IFR to a VFR flight plan, obtain all flight plan information and then transmit a flight notification message to the destination tie-in station. Include the type of flight plan, aircraft identification and type, departure point, destination, ETA, and pertinent remarks.

**EXAMPLE-**

AISR

FF KABQYFYX

DTG KOAKYFYX

VFR N87690 C182/U SFO ELP 2100 \$CNLD

IFR OVER BFL

MIFC

FR:V AI:N8769 AT:C182/U TS:130 DD:PVU

TM:D1940 AE:105

RT:SLC..TWF..MLD..LWS..GEG

AD:GEG TE:0330 RM:\$CNLD IFR OVR TWF

FB: AA: PD:

NB: CR: OP:

CP:KSEAYFYX TA:2310

**NOTE-**

Obtaining the name of the original flight plan source may provide additional information if the aircraft becomes overdue.

c. Military Change from IFR to VFR or VFR to IFR. When a military aircraft changes from IFR to VFR, or VFR to IFR, or requests that other significant information be forwarded, transmit this information to the destination station.

**EXAMPLE-**

AISR

FF KTIKYYX

DTG KDENYFYX

DECAL01 CHGD TO VFR RON

MIFC

ORIGIN:DEN PRECEDENCE:FF TIME: ACK:N

ADDR:KTIKYYX

TEXT:DECAL01 CHGD TO VFR RON

**6-4-9. CHANGE IN ETA**

When an aircraft wants to change its estimated time en route (ETE), facilities shall secure a new estimated time of arrival (ETA) and forward the information to the destination tie-in station as a numbered message. The destination tie-in station shall acknowledge and, thereafter, use the new ETA as the standard for any necessary follow-up action; e.g., QALQ message.

**EXAMPLE-**

AISR  
 FF KSEAYFYX  
 DTG KBOIFYFYX  
 BOI001 SEA  
 N34567 E2140

**MIFC**

ORIGIN:BOI PRECEDENCE:FF TIME: ACK:Y  
 ADDR:SEA  
 TEXT:N34567 E2140

**NOTE-**

1. MIFC. MIFC will automatically acknowledge the message, change the ETA on the flight plan and inbound list, and store the message in the DD file without specialist intervention.

2. OASIS. OASIS will automatically acknowledge the message, update the ETA on the Inbound List, store the message in the history file, and notify the specialist that a Changed ETA message was received which matched an active flight plan.

**6-4-10. FLIGHT PLAN CLOSURE**

Do not transmit arrival reports except under unusual circumstances or in the following cases:

a. Transmit to any facility requested by the pilot, arrival or any other information involving FAA or Canadian MOT aircraft.

**EXAMPLE-**

AISR  
 FF KDCAYFYX  
 DTG KHHRYFYX  
 HHR002 DCA  
 N2 A0839 (Remarks, as appropriate)

**MIFC**

ORIGIN:HHR PRECEDENCE:FF TIME: ACK:Y  
 ADDR:DCA  
 TEXT:N2 A0839 (Remarks as appropriate)

b. For U.S. military aircraft, transmit arrival reports to the departure station only when:

1. Requested by BASOPS.
2. Special military flights arrive.

c. When a pilot closes a flight plan with a station that has not received a flight notification message, obtain as a minimum, the departure point, the flight planned destination point, and the station with which the flight plan was filed.

1. If the station receiving the closure is the tie-in station for the planned destination, transmit an arrival message to the departure station with the remark FPNO and the departure point and destination identifiers. The departure station shall relay the arrival information to the station holding the flight notification message in the active file.

**EXAMPLE-**

AISR  
 FF KDCAYFYX  
 DTG KMIVYFYX  
 MIV001 DCA  
 N8567 A1745 FPNO PHF NMK

**MIFC**

ORIGIN:MIV PRECEDENCE:FF TIME: ACK:Y  
 ADDR:DCA  
 TEXT:N8576 A1745 FPNO PHF NMK

2. If the station receiving the closure message is not the destination tie-in station, transmit a closure message to the destination tie-in station, including the aircraft identification, the closure time, the departure point, and destination. Remarks are optional.

**EXAMPLE-**

AISR  
 FF KHUFYFYX  
 DTG KDAYFYX  
 DAY003  
 N11ND C1217 LOU IND LNDD CMH

**MIFC**

ORIGIN:DAY PRECEDENCE:FF TIME: ACK:Y  
 ADDR:HUF  
 TEXT:N11ND C1217 LOU IND LNDD CMH

**NOTE-**

1. MIFC. Closure and arrival messages do not process automatically; manual intervention is required.

2. OASIS. OASIS automatically processes correctly formatted closure and arrival messages. OASIS will automatically remove the flight plan from the Inbound List, store the message in the history file, and notify the specialist that a Closed flight plan message was received which matched an active flight plan.

**6-4-11. MILITARY FLIGHTS TO/FROM U.S.**

a. To U.S. If REQ ARR is in remarks, suspend the flight plan until arrival information is received from BASOPS and forward to the departure location.

**b.** From U.S. If requested by BASOPS, include REQ ARR in remarks section of ICAO flight plan. Terminate suspense action only after receipt of an arrival message and delivery to BASOPS.



## Section 9. SECURITY NOTICE (SECNOT)

### 6-9-1. SECURITY NOTICE (SECNOT)

A Security Notice (SECNOT) is a request originated by the Air Traffic Security Coordinator (ATSC) of the Domestic Events Network (DEN) for an extensive communications search for aircraft involved, or suspected of being involved, in a security violation. A SECNOT will include the aircraft identification, search area, and expiration time. The search area, as defined by the ATSC, could be a single airport, multiple airports, a radius of an airport or fix, or a route of flight. Once the expiration time has been reached, the SECNOT is considered to be cancelled.

**NOTE-**

1. The DEN will notify the FSS of the SECNOT by telephone.
2. The ATSC may expand the search area or expiration time following the initial notification of the Security Notice.

### 6-9-2. ACTION UPON RECEIPT OF A SECURITY NOTICE

a. As soon as a SECNOT is received, the facility must attempt to locate the aircraft by checking all airports in the search area that could accommodate the aircraft. Also, relay the SECNOT to all terminal facilities in the search area.

**NOTE-**

1. Terminal facilities will reply directly to the DEN.
2. The DEN is responsible for coordination with ARTCCs.

b. When contacting airports or offices outside of official government agencies, provide no further information other than that which is contained in the SECNOT.

c. Upon receipt of information pertaining to the SECNOT, immediately notify the DEN.

d. If the aircraft is located, notify the DEN immediately and cancel the SECNOT.

e. The priority of duty for the handling of a SECNOT is that of emergency situations, as described in Paragraph 1-3-2, Duty Priority.

f. Record the initiation of a SECNOT on FAA Form 7230-4, Daily Record of Facility Operation, or the electronic equivalent. Include the aircraft identification, search area, and expiration time in the log entry.

### 6-9-3. CANCELLATION OF SECURITY NOTICE

The SECNOT remains current until the aircraft is located, the search is cancelled by the ATSC, or the expiration time is reached.

a. Workload permitting, notify all previously alerted air traffic facilities if the SECNOT is cancelled before the expiration time is reached.

b. Record the cancellation on FAA Form 7230-4, Daily Record of Facility Operation, or the electronic equivalent.



# Chapter 7. International Operations

## Section 1. Messages and Formats

### 7-1-1. GENERAL

a. Title 14 of the U.S. Code of Federal Regulations (14 CFR) and the International Civil Aviation Organization (ICAO) require flight plans for all civil aircraft operation between the United States and foreign locations. Bureau of Customs and Border Protection requirements, international flight plan information, and Air Defense Identification Zone (ADIZ) penetration requirements are listed in other publications; e.g., the FAA International Flight Information Manual (IFIM), the Bureau of Customs and Border Protection Guide for Private Flyers, the Aeronautical Information Manual (AIM), 14 CFR Part 91, and 14 CFR Part 99. Designated airports of first landing are listed in the IFIM and the Airport/Facility Directory (A/FD).

b. This chapter provides guidance to FSS facilities that transmit international flight movement messages. It incorporates relevant information from ICAO and 14 CFR documents. All personnel required to handle international messages must be familiar with ICAO documents containing instructions for preparing and transmitting communications through the Aeronautical Fixed Telecommunications Network (AFTN) circuits. These documents should be retained at facilities which handle international messages. FSS personnel must not act as agents for any aircraft operating or dispatching company.

#### **NOTE-**

*International telecommunications instructions are found in International Standards and Recommended Practices, ICAO Annex 10 - Aeronautical Telecommunications, Volume II. PANS ATM DOC 4444, Procedures for Air Navigation Services, lists various ATS movement messages. Location indicators are contained in ICAO Document 7910, and Designators for Aircraft Operating Agencies Aeronautical Authorities and Services are contained in ICAO DOC 8585. FAA policies concerning acceptance of messages for international transmission are contained in 14 CFR Part 189.*

c. Address the message to the proper FSS gateway facility/sector for handling. FSSs that transmit only occasional international messages or are unable to determine the correct addressing for all air traffic

units concerned may refer or transfer the pilot to the proper gateway facility/sector. The FSS gateway facility/sector and their areas of responsibilities are as follows:

1. Miami FSS Sector (MIA): Africa, Bermuda, Canada, Caribbean, Central America, Europe, North Atlantic, and South America.
2. Kenai AIFSS (ENA): Alaska.
3. Oakland FSS Sector (OAK): Pacific.

d. To ensure that the FSS gateway facility/sector understands your request, include T (transmit) instructions in the first line of text.

#### **EXAMPLE-**

*FF KMIAYFYX KOAKYFYX  
DTG PAJNYFYX  
OAK T ALL INTL ADDRESSEES  
(Text)*

### 7-1-2. AIR TRAFFIC SERVICE (ATS) MESSAGES

ATS as used in this section, as opposed to the meaning of the term within the FAA, is a generic term meaning and including: flight information, alerting, air traffic advisory, and air traffic control (ATC) services.

### 7-1-3. CATEGORIES OF MESSAGES

The following ATS messages, with their normal priority indicators, are authorized for transmission by any means; i.e., AFTN, NADIN, interphone, computer-to-computer, or via the aeronautical mobile service, as applicable.

#### a. Emergency Messages.

1. Distress messages and distress traffic, including alerting (ALR) messages relating to distress (DETRESFA) phase-SS.

2. Urgency messages, including alerting messages relating to an alert (ALERFA) phase or to an uncertainty (INCERFA) phase-SS.

3. Other messages concerning known or suspected emergencies which do not fall under subparas 7-1-3a1 and 2 and radio communications failure (RCF) messages-FF or higher as required.

**b. Movement and Control Messages.**

1. Flight plan (FPL)-FF.
2. Amendment and coordination messages.
  - (a) Departure (DEP)-FF.
  - (b) Delay (DLA)-GG.
  - (c) Arrival (ARR)-GG.
  - (d) Boundary estimate (EST)-FF.\*
  - (e) Modification (CHG)-FF.\*
  - (f) Coordination (CDN)-FF.\*
  - (g) Acceptance (ACP)-FF.\*

3. Cancellation (CNL)-GG.\*

4. Clearances, flow control (SPL, CHG, CDN)-FF or DD.\*

5. Transfer of control (TCX)-FF.\*

6. Requests (RQS)-FF.\*

7. Position reports (AIREP)-FF.\*

**c. Flight Information Messages.**

1. Traffic information-FF.\*

2. Meteorological information (MET)-FF or GG.

3. Operation of aeronautical facilities and essential airport information (NOTAM)-GG.

\* Normally exchanged between ATC units via voice circuits.

**d. Technical Messages.** Four categories of these messages are specified for use on computer-to-computer circuits only. They will not be sent on AFTN or NADIN circuits.

### 7-1-4. SERVICE MESSAGES

**a.** NADIN will immediately generate a service message to an originator when incorrect code or routing indicators are detected.

**EXAMPLE-**  
*FF KZKCZQZX*  
*031840 KSLCYTYX*

*SVC. ZKC121 QTA RPT*  
*FF KZKCZQZX*  
*031840 KSLCYTYX*  
*SVC. ZKC122 QTA MSR*

**b.** Assign the appropriate priority indicator to international service messages. When service messages refer to messages previously transmitted, assign the same priority prefix. Identify a service message by inserting SVC as the first item of the text.

**EXAMPLE-**  
*FF TJSJFYX*  
*DTG KSEAYFYX*  
*SVC. RUMES 231015*  
*(Text)*

### 7-1-5. TRANSMISSION VIA NADIN

International messages are generally introduced on NADIN for relay to AFTN circuits.

**a.** M1FC facilities use the ICAO flight plan mask or TB mask. Addressee(s): Not to exceed 69 characters or seven addressees, each addressee separated by a space.

**b.** AISR facilities handle international messages on NADIN for relay to AFTN as follows:

1. Start of message. New Line Key.

2. Preamble (priority, space, addressee(s)).

(a) Priority. Two-character precedence field.

(b) Addressee(s). Not to exceed 69 characters or seven addressees, each addressee separated by a space.

(c) End of Line (EOL) new line key.

(d) End of Text (EOT) (enter function).

**c.** OASIS facilities use the ICAO Flight Plan dialog box or General Facility Message. A maximum of 16 addressees can be entered.

### 7-1-6. TRANSMISSION OF ATS MESSAGES

**a.** Air traffic service messages are interchanged in the international air traffic control system in the following modes:

1. The preferred step-by-step mode wherein each ACC/ARTCC sends forward the full current (updated) flight plan information as the flight progresses.

2. The simultaneous mode wherein information extracted from the filed flight plan (FPL) is sent simultaneously to all ATS units along the route of flight. In this mode, only amendments to the FPL, plus necessary control information, are forwarded from center to center as the flight progresses.

b. Prepare and transmit ATS messages as set forth in this Order. Address these messages as follows:

1. Include an eight-character addressee indicator for each addressee. When the number of addressees required is more than the operational system parameters allow, two or more transmissions of the message must be made. The eight-letter combination addressee indicators are composed as follows:

(a) The four-letter ICAO location indicator; e.g., MPTO. Use only those listed in ICAO DOC 7910 (Location Indicators). Some ICAO eight-character addressees for Mexico and Canada are listed in FAAO JO 7350.8, Location Identifiers.

(b) A four-letter designator for the facility type/office, or if no designator has been assigned, affix YXYX for military, ZZZX for aircraft in flight, or YYYX for all other cases; e.g., MTPPYYYX. (See Note.)

**REFERENCE-**

ICAO DOC 8585, *Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services.*

**NOTE-**

*The most frequently used and authorized designators are: YAYX Government Civil Aviation Authority (FAA Regional Office or Headquarters).*

*YCYX Rescue Coordination Center (RCC).*

*YDYX Authority Supervising the Aerodrome.*

*YFYX Aeronautical Fixed Station (AFSS/FSS/IFSS/IATSC).*

*YMYX Meteorological Office (NWS).*

*YNYX International NOTAM Office (NOF).*

*YTYX Telecommunications Authority.*

*YWYX Military Flight Operational Control Center (ACP)*

*YXYX Military Organization (BASOPS).*

*YYYY Organization not allocated a two-letter designator.*

*ZOZX Oceanic Air Traffic Control Center.*

*ZPZX Air Traffic Service Reporting Office.*

*ZQZX Computer Facility at ACC/ARTCC.*

*ZRZX ACC/ARTCC. (Center in charge of a FIR/UIR when the message is relevant to a VFR flight (AMIS)).*

*ZTZX Aerodrome Control Tower.*

*ZZZX Aircraft in flight.*

(c) A one-letter designator will appear following an air carrier designator to indicate the department or division of the organization addressed.

2. Filing time. A six-digit date/time group indicating the time the message is filed with the FSS for transmission.

c. Originator Indicator. Consists of an eight-letter sequence similar to an address indicator, identifying the place of origin and the organization originating the message.

d. Supplementary Address and Origin Information. When the four-letter designators YXYX, ZZZX, or YYYX are used, identify the aircraft operator or organization at the beginning of the text preceding the start-of-ATS data symbol (⟨ - - ), in the same order as in the addressee(s) and/or originator indicator(s). Where there is more than one such insertion, the last should be followed by the word "stop." Where there are one or more insertions in respect to addressee indicators plus an insertion in respect to the originator indicator, the word FROM is to appear before that relating to the originator.

e. When addressing flight plan messages or related amendments and flight plan cancellation messages to centers, use one of the four-letter designators as follows:

1. If message is relevant to IFR and:

(a) The ARTCC is computer-equipped (U.S. ARTCCs), use ZQZX.

(b) The center is not computer-equipped, use ZRZX.

(c) Relevant to oceanic operations, use ZOZX.

**NOTE-**

*Some centers may request specific addressing different from above. ZTZX and ZPZX are used internationally, but are not used in internal U.S. application.*

2. If message is VFR (AMIS), use ZRZX.

3. If SVC or administrative, use ZRZX.

## 7-1-7. ORIGINATING MESSAGES

a. Messages for ATS purposes may be originated with ATS units by aircraft in flight, or, through local arrangements, a pilot, the operator, or their designated representative.

**b.** Accept air-filed flight plans or changes in destination information from aircraft inbound from foreign locations and, if requested by the pilot, enter Customs notification service.

**c.** Do not accept round-robin flight plans to international locations, other than Canada.

**NOTE-**

**1.** Only accept VFR round-robin flight plans to Canada if the filer of the flight plan is in possession of a valid numbered letter of authorization and adheres to the provisions contained therein.

**2.** Individual requests for the temporary authorization letter should be directed to the appropriate service area office.

**3.** The temporary authorization letter mandates the pilot, or responsible party, to provide the FSS with a name, telephone number and authorization number for inclusion in the remarks section of the flight plan.

**4.** AFSS/FSS must log a double (2) count for the round-robin flight plan.

**d.** Do not accept assumed departure flight plans when the destination is in a foreign country other than Canada.

**e.** Aircraft movement, control, and flight information messages for purposes other than ATS, such as operational control, must be originated by the pilot, the operator, or their designated representative.

## 7-1-8. ADDRESSING MESSAGES

**a.** Addressing the flight plan is determined by the point of departure, the destination, and the FIR boundaries to be penetrated during the course of the flight.

**b.** Address IFR FPL messages to the ARTCC serving the airport of departure and to all ATS units (including oceanic) providing air traffic control service or concerned with flight along part or the whole of the route to be flown except FAA ATCTs and other conterminous U.S. ARTCCs.

**NOTE-**

Within the North Atlantic (NAT) Region, FPLs on turbojet aircraft transiting the control areas of Gander Oceanic, New York Oceanic, Reykjavik, Santa Maria Oceanic, Shanwick Oceanic and Sondrestrom (south of 70 degrees) within 90 nautical miles of the control area boundary, shall be addressed to the adjacent ACC to provide lateral

separation. For all other aircraft, a 120 nautical mile proximity limit shall apply.

**c.** Transmit all IFR FPLs to ARTCCs not less than 1 hour prior to the proposed departure time. Do not hold FPLs until after departure time and transmit as a combined FPL and DEP. Separate FPL and DEP messages must be transmitted.

**NOTE-**

ICAO flight plans do not require an acknowledgment to the transmitting facility.

**d.** Address aircraft movement messages only to those ATS units responsible for the provision of relevant service, except when requested by the operator concerned, these messages, when transmitted via the AFTN, may also be routed, as specified by the operator or a representative to:

**1.** One addressee at the point of intended landing or point of departure.

**2.** Not more than two operational control units concerned.

**e.** The ARTCC serving the departure airport shall transmit the DEP message on IFR aircraft to all known recipients of the FPL message. Flights between conterminous U.S. and Canada (excluding Gander Oceanic), Alaska, Hawaii and Puerto Rico do not require DEP messages. Discontinuance of DEP messages affecting the route of flight can only be accomplished by ICAO Regional Air Navigation Agreement.

## 7-1-9. FLIGHT PLAN FORMS AND INSTRUCTIONS

**a.** Use the International Flight Plan, FAA Form 7233-4 (see Appendix A), ICAO Model Flight Plan Form displayed in ICAO DOC 4444, or an electronic equivalent and apply the procedures set forth in this section for flight:

**NOTE-**

Exceptions apply for flights to Canada and Mexico, see Section 4 and Section 5, for procedures.

**1.** Originating within conterminous U.S. and Canada and destined nonstop to points beyond those areas.

**2.** Originating within or transiting Pacific Flight Information Regions (FIR) and destined to or from FIRs beyond the Pacific Region including the North American (NAM) Region.

**NOTE-**

1. The NAM Region encompasses the conterminous U.S., Alaska, and Canada to the North Pole.

2. FAA Form 7233-1, or an electronic equivalent and domestic procedures are used for flights in the conterminous U.S., Canada, and the Honolulu, Alaskan, and San Juan domestic control areas.

3. When paper forms are used, record the time the flight plan is filed on the form. This time will constitute evidence of the pilot's intention to comply with Customs, Immigration, and Public Health requirements and will be made available upon request from these authorities.

**7-1-10. ICAO ATS MESSAGE FORMAT**

The following are examples of ICAO message types most likely to appear on AFTN/NADIN circuits. The number above the data corresponds to the field type numbers on the flight plan form (FAA Form 7233-4) and on the chart of Standard ATS Messages and Their Composition, Appendix A.

a. Departure Message (DEP). ARTCCs are the designated ATS unit responsible for originating and transmitting DEP messages on all IFR aircraft departing airports within their center boundaries. IFR flight plans must be transmitted to ARTCCs at least 1 hour before departure. This allows ARTCCs to determine recipients of DEP message when domestic portions are transmitted to ARTCCs in M1 format. Do not hold FPLs and combine with DEP into a single message.

b. Delay Message (DLA). Transmitted when departure of an aircraft, for which an FPL message has been transmitted, is postponed or delayed more than 30 minutes after the estimated time of departure contained in the FPL.

c. Alerting Message (ALR). Relating to an overdue situation on an aircraft.

d. Supplementary Flight Plan (SPL) information shall be sent to ATS units requesting the information (RQS).

e. Arrival Message (ARR). Sent only on Canadian MOT, U.S. DOT, or FAA aircraft or upon request.

f. Current Flight Plan (CPL) Message. Originated by and transmitted in a step-by-step mode between successive ACCs and between the last ACC to the

control at the airport of intended landing. CPLs contain only information relevant to that portion of the route of flight which extends from the point of entry into the next control area or FIR to the airport of intended landing.

g. Acceptance (ACP) Message. Transmitted when the data contained in a CPL message are found to be acceptable to the receiving ACC.

h. Flight Plan Cancellation (CNL) Message. Transmitted when a current (CPL) or filed flight plan (FPL) message was transmitted and the flight is canceled.

**7-1-11. FLIGHT PLAN CHANGES AND CANCELLATIONS**

a. Assume departure station duties when a flight plan change is received from an aircraft en route to a foreign location.

**REFERENCE-**

FAAO JO 7110.10, Para 6-4-8, Major Flight Plan Changes from En Route Aircraft, and

FAAO JO 7110.10, Para 6-4-9, Change in ETA.

b. An AFSS/FSS receiving a VFR flight plan cancellation report from aircraft en route to a foreign location shall transmit a cancellation message to the appropriate foreign tie-in facility.

**REFERENCE-**

FAAO JO 7110.10, Para 6-4-10, Flight Plan Closure.

**7-1-12. AIR MOBILE SERVICE (AMS)**

a. Air Mobile Service (AMS) is an international air/ground communications network. It provides service to en route aircraft primarily in support of ATC and company operations, and collects meteorological data for dissemination. Although in the U.S. this service is provided via contract (ARINC), FAA flight service facilities may be required to relay information on a case-by-case basis.

b. The AMS network is composed of individual units geographically limited to areas where effective coordination and cooperation between ground stations are possible.

c. For any individual route segment, the AMS communication requirements will normally be met by two or more network stations serving the flights on that route segment. In general, these primary stations serve the ACC serving the FIRs and the points of takeoff and landing. In some cases, additional

suitably located stations are required to complete the communications coverage.

**d.** Each of these stations may be required at some stage of the flight to exchange communications with the aircraft, and when not so engaged, to intercept, as required, communications exchanged between the aircraft and any one of the other stations.

**e.** Stations providing regular network service to aircraft operation along route segments in an ACC's FIR are termed regular stations. Other network stations will only be required to assist communications for that FIR in the event of communications failure.

**f.** When communications permit, aircraft should transmit their messages to the primary station of the network from which they can most readily be delivered to their ultimate destination. In particular, aircraft reports required by ATC should be transmitted to the network station serving the ATC center in whose area the aircraft is flying. Conversely, messages to aircraft in flight should be transmitted direct to the aircraft by the network station serving the location of the originator.

**g.** Messages passed from aircraft to a network station should be intercepted and acknowledged by other stations which serve locations where the information is also required. Such intercepts provide instantaneous delivery of information and eliminates the transmission of messages over the AFTN. Networks may not be used for transmission of aircraft reports except under the intercept principle. Acknowledgments of intercept shall be made immediately after the acknowledgment of receipt by the station to which the message was passed. In the absence of acknowledgment of intercept within 1 minute, the station accepting the message from the aircraft shall forward the message via the AFTN to the ultimate destination.

**h.** In areas or on routes where radio operations, lengths of flights, or distance between stations require additional measures to ensure continuity of communications throughout the route segment, the stations shall share the responsibility of primary guard whereby each station will provide the primary guard for that portion of the flight during which the messages from the aircraft can be handled most effectively by that station.

**i.** During its tenure of primary guard, each station will:

**1.** Be responsible for designating primary and secondary frequencies for communications with aircraft.

**2.** Receive all position reports and handle other messages from and to the aircraft essential to the safe conduct of the flight.

**3.** Be responsible for the action required in case of failure of communication.

**j.** Transfer of primary guard from one primary station to the next will normally take place at the time of traversing FIR or control area boundaries. When communications conditions so demand, a station may be required to retain primary guard beyond geographical boundaries or release its guard before the aircraft reaches a boundary.

### **7-1-13. AIREPs (POSITION REPORTS)**

**a.** AIREPs are messages from an aircraft to a ground station. AIREPs are normally comprised of the aircraft's position, time, flight level, ETA over its next reporting point, destination ETA, fuel remaining, and meteorological information. When recording an AIREP on data terminals or written copy, the following procedures must be used.

**1.** Each line must begin at the left margin.

**2.** A new line must be used for each transmission.

**3.** If communications allow, each report must contain the following items in the order shown:

**(a)** Message type ARP.

**(b)** Call sign of the calling station (aircraft).

**(c)** Text of the message.

**(d)** Call sign of the station called or receiving station followed by the appropriate abbreviation to indicate received, readback, or no reply heard.

**(e)** Call sign of station(s) acknowledging intercept followed by appropriate abbreviation to indicate received.

**(f)** Designation of frequency used.

**EXAMPLE-**

*2866QM	8903VO	13300YH
2932QI	*5631TY	11384XM
2998QL	6532UA	13294YF
5628TO	10048WH	17904ZC

*\*For Alaskan domestic use only.*

(g) Time in UTC of the communication.

4. Missing parts of the message text must be indicated by the letter "M."

**EXAMPLE-**

ARP CPC583 KBRO 2100 F330 MMTM 2128  
ETA XMMM 2248 FUEL 0324  
KNEW RB  
MMMM R  
TO2103

b. AIREPs may be filed from any aircraft inflight within World Meteorological Organization (WMO) areas of responsibility in conformity with ICAO requirements for position, operational, or meteorological reporting in AIREP format. AIREP information must be disseminated to ATC, company, and meteorological offices as required. AIREPs consist of three sections comprised of 12 items. AIREPs may be filed in one, two, or three sections as follows:

1. Section 1, Routine report. A position report (PSNRP) comprising the Message Type Designator -ARP and the following items:

(a) Item 1, Aircraft identification.

(b) Item 2, Position. Record position in latitude (degrees as two numerics, or degrees and minutes as four numerics, followed without a space by N or S) and longitude (degrees as three numerics, or degrees and minutes as five numerics, followed without a space by E or W) or as a significant point identified by a coded designator (two-to-five characters) or as a significant point followed by a magnetic bearing (three numerics) and a distance in nautical miles (three numerics) from the point, such as 4620N07805W, 4620N078W, 46N078W, LN, MAY or DUB180040. Precede significant point by ABM (abeam), if applicable.

(c) Item 3, Time. Record time in hours and minutes UTC (four numerics). The time recorded must be the actual time of the aircraft at the position and not the time of origination or transmission of the report.

(d) Item 4, Flight level or altitude. Record flight level as F followed by three numerics when on standard pressure altimeter setting, such as F370. Record altitude in meters followed by M, or in feet followed by FT, when on QNH. Record ASC (level) when climbing, or DES (level) when descending to a new level after passing the significant point.

(e) Item 5, Next position and time over. Record the next reporting point and the estimated time over such reporting point, or record the estimated position that will be reached 1 hour later, according to the position reporting procedures in effect. Use the data conventions specified in subpara 7-1-13b1(b) Item 2, Position, for position. Record time in minutes past the hour (two numerics) or in hours and minutes UTC (four numerics) when necessary.

**EXAMPLE-**

*PSNRP portion of AIREP prepared by De Ridder and addressed to Canadian Pacific Airlines (CPC) in Toronto and Mexico City:*

FF CYYZCPCX MMMXXMZT  
122105 KDRIYFYX  
ARP CPC583 KBRO 2100 F370 MMTM28  
KNEW RB  
MMMM R  
TO2103J

2. Section 2. When reported by the pilot:

(a) Item 6, Estimated Time of Arrival (ETA). Record ETA by the four-letter location indicator of the airport of first intended landing, or if no location indicator exists, the name of the airport followed by the estimated time of arrival at this aerodrome in hours and minutes UTC (four numerics).

(b) Item 7, Endurance. Record fuel in hours and minutes (four numerics).

3. Section 3. A full AIREP comprising a PSNRP, company information, and en route meteorological information.

(a) Item 8, Air temperature. Record PS (plus) or MS (minus), no space, followed by the temperature in degrees centigrade corrected for instrument error and airspeed, such as MS05.

(b) Item 9, Spot wind or mean wind and position. Spot wind is used whenever practical and normally refers to the position given in subpara 7-1-13b1(b) Item 2, Position. When a spot wind is

given for any other location, record its position. Whenever it is not practical to record spot wind, record the mean wind between two fixes, followed by the word “mean,” and the position of the midpoint between the two fixes. Record wind direction in degrees true (three numerics) and wind speed in knots (two or three numerics), separated by an oblique stroke, such as 345/55. Record the direction of variable winds of a given strength as VRB, such as VRB/10. Record light and variable winds or calm as LV. If wind position is required, record latitude and longitude to the nearest whole degree, using the data convention specified in Item 2, such as 22N180W.

**EXAMPLE-**

*AIREP comprised of PSNRP and aircraft operator information.*

*FF CYYZCPCX MMMXXMZT  
122105 KDRIYFYX  
ARP CPC583 KBRO 2100 F370 MMTM28  
MMMXX 2248 FUEL 0324  
KNEW RB  
MMMXX R  
TO2103*

(c) Item 10, Turbulence (TURB). Record severe turbulence as TURB SEV and moderate turbulence as TURB MOD. If turbulence is experienced in cloud, add INC (in cloud). If in subsonic flight, report severe turbulence as soon as possible after occurrence. This requires AIREP SPECIAL. Record and report moderate turbulence only if encountered within last 10 minutes prior to reaching position in subpara 7-1-13b1(b) Item 2, Position. If in transonic or supersonic flight, report severe or moderate turbulence as soon as possible after occurrence. This requires AIREP SPECIAL.

(d) Item 11, Icing. Record severe icing as ICE SEV, moderate icing as ICE MOD. Report severe icing as soon as possible after occurrence. This requires AIREP SPECIAL. Record and report moderate icing only if encountered within last 10 minutes prior to reaching position in subpara 7-1-13b1(b) Item 2, Position.

(e) Item 12, Supplementary Information. Record data which in the opinion of the pilot-in-command are of aeronautical interest.

(1) Present Weather. Rain (RA), Snow (SN), Freezing rain (FZRA), Funnel cloud (FA)

(waterspout or tornado), Thunderstorm (TS) on or near flight path, Front (FRONT).

(2) Clouds. If heights of cloud bases and/or tops can be accurately ascertained, amount of clouds scattered (SCT) if clear intervals predominate, broken (BKN) if cloud masses predominate, or continuous (CNS) type of clouds only if cumulonimbus (CB), and an indication of the bases (BASE) and/or the tops (TOP) together with the respective height indication F (number) or (number) or (number) M/ or (number) FT.

(3) Turbulence and Icing. Moderate turbulence (TURB MOD) if in subsonic flight, or moderate aircraft icing (ICE MOD) observed prior to the last 10 minutes.

(4) D-Value. Reading or radio altimeter minus reading of pressure altimeter set to 1013.2 mb and corrected for calibration and position error; record differences as PS (plus) or MS (minus), no space, followed by the number of meters or feet.

**EXAMPLE-**

*Full AIREP:*

*FF CYYZCPCX MMMXXMZT KMIAYMYX  
162215 TJSJFYX  
ARP CPC583 2709N05415W 2212 F330  
23N056W 59 0035 FUEL 0324 M534 310/60  
MEAN 2543N05532W TURB MOD ICE MOD SCT  
CB TOP F280  
TJSJ RB  
TO2214*

**NOTE-**

*Transmit to the WMO office serving the FIR where the report is made.*

(5) Operationally Significant Weather Radar Echoes (echo or echo line). True bearing of center of echo or line and distance from aircraft in nautical miles; if appropriate, indicate weather intensifying or weakening and whether no gaps, some gaps, or frequent gaps are observed.

(6) Significant differences between conditions encountered and those forecast for the flight, such as forecast thunderstorms not observed or freezing rain not forecast.

(7) If the position of the phenomenon reported is not the same as the position given under subpara 7-1-13b1(b) Item 2, Position, report it after the phenomenon.

**7-1-14. AIREP SPECIALS (ARS)**

**a.** Turbulence. TURB SEV encountered while in subsonic flight is reported as soon as possible after occurrence and requires AIREP SPECIAL. TURB MOD is reported only if encountered within 10 minutes prior to reaching reporting position. If in transonic or supersonic flight, TURB MOD and SEV is reported as soon as possible and requires AIREP SPECIAL.

**b.** Icing. ICE SEV is reported as soon as possible after occurrence and requires AIREP SPECIAL. ICE MOD is reported only if encountered within last 10 minutes prior to reaching reporting position.

**EXAMPLE-***AISR**FF KMIAYMYX**211538 TJSJYFYX**ARS PAA101 5045N02015W 1536 F310 ASC**F350 51N030W 21 FUEL 0900 ICE SEV**MI**ORIGIN:TJSJYFYX PRECEDENCE:FF TIME:**ACK:N**ADDR:KMIAYMYX**TEXT: ARS PAA101 5045N02015W 1536**F310 ASC F350 51N030W 21 FUEL 0900**ICE SEV***7-1-15. ARTCC RELAY OF VFR MESSAGES**

ARTCC AISR operators shall relay all international VFR flight movement messages to the adjacent AIFSS/AFSS/FSS unless that facility is also an addressee.

**NOTE-**

*If an overseas unit erroneously routes a VFR movement message to an ARTCC, the automatic NADIN switch will not divert it to an AIFSS, AFSS or FSS.*



# Chapter 8. Search and Rescue (SAR) Procedures for VFR Aircraft

## Section 1. General

### 8-1-1. RESPONSIBILITY FOR SAR ACTION

**a.** The departure tie-in facility/sector is responsible for SAR action until the destination tie-in facility acknowledges receipt of the flight notification message. SAR responsibility is then transferred to the destination tie-in facility.

**b.** The National SAR Plan assigns search and rescue responsibilities as follows:

**1.** To the military agencies for conducting physical search and rescue operations.

**2.** To the FAA for:

**(a)** Providing emergency service to aircraft in distress.

**(b)** Assuring that SAR procedures will be initiated if an aircraft becomes overdue or unreported. This is accomplished through the ATC system for IFR aircraft and the flight plan program and/or reports of overdue aircraft received at air traffic facilities for VFR aircraft.

**(c)** Attempting to locate overdue or unreported aircraft by INREQ and ALNOT communications search.

**(d)** Cooperating in the physical search by making all possible facilities available for use of the searching agencies.

#### **NOTE-**

*The National Search and Rescue Plan is outlined in the AIM, para 6-2-7.*

**c.** Flight service stations serve as the central point for collecting and disseminating information on overdue or missing aircraft which are not on an IFR flight plan.

**d.** ARTCCs serve as the central points for collecting information, coordinating with SAR, and

conducting a communications search by distributing any necessary ALNOTs concerning:

**1.** Overdue or missing IFR aircraft.

**2.** Aircraft in an emergency situation occurring in their respective areas.

**3.** Aircraft on a combined VFR/IFR or an airfiled IFR flight plan, and 30 minutes have passed since the pilot requested IFR clearance, and neither communications nor radar contact can be established.

**4.** Overdue or missing aircraft which have been authorized to operate in accordance with a SVFR clearance.

**e.** The ARTCC serves as the contact point for collecting information and coordinating with the RCC on all ELT signals.

### 8-1-2. OVERDUE AIRCRAFT ON FLIGHT PLAN

Consider an aircraft on a VFR or DVFR flight plan overdue when it fails to arrive 30 minutes after its ETA and communications or location cannot be established.

### 8-1-3. OVERDUE AIRCRAFT NOT ON FLIGHT PLAN

Consider an aircraft not on a flight plan as overdue at the actual time a reliable source reports it to be at least 1 hour late at destination. Based on this overdue time, apply the same procedures and action times as for aircraft on a flight plan. When such a report is received, verify (if possible) that the aircraft actually departed and that the request is for a missing aircraft rather than a person. Refer missing person reports to the appropriate authorities.

#### **REFERENCE-**

*FAAO JO 7110.10, Para 8-2-1, Initial Action/QALQ; Para 8-3-1, INREQ; Para 8-4-1, ALNOT.*



## Section 2. Overdue Aircraft Action

### 8-2-1. INITIAL ACTION/QALQ

a. As soon as a VFR/DVFR aircraft (military or civil) becomes overdue, the destination tie-in facility/sector (including intermediate destination tie-in facilities for military aircraft) must attempt to locate the aircraft by checking the destination airport and all adjacent airports that could accommodate the aircraft. Check appropriate ATCT facilities and ARTCC sectors through the area manager. If this communications search does not locate the aircraft, send a QALQ to the departure tie-in facility/sector and, when appropriate, the DUAT vendor or facility where the flight plan information is on file.

**EXAMPLE-**

*FF KCOUYFYX  
DTG KBNAYFYX  
QALQ N12345*

b. If it is determined by the flight service specialist that the local field search cannot be completed before the INREQ transmission time, the QALQ must be transmitted in time to receive the information for the INREQ message. The local field search must continue without reference to time until completed.

c. Use of long distance telephone in carrying out SAR responsibilities is authorized when appropriate.

d. In the case of a U.S. registered aircraft, or any aircraft known to be piloted by or transporting U.S. citizens and en route within a foreign country or between two foreign countries, if an overdue report is received either from someone directly concerned or from aviation authorities of a foreign country, notify the Washington Communications Control Center immediately via Service B message addressed to KRWAYAYX.

e. Alaska. In addition to subparas 8-2-1a and d, address QALQ messages and replies to PAQALQSX, INREQ messages and replies to PAINREQX, and ALNOT messages and replies to PAALNOTX.

**NOTE-**

*RCCs other than Elmendorf AFB (PAEDYCYX) are not on Service B and must be notified by telephone.*

f. Upon receipt of a QALQ message from the destination tie-in facility concerning a flight for which a proposed flight plan was transmitted, the

facility which transmitted the proposal must immediately transmit a message to the destination tie-in facility containing all information not previously sent. After a local airport check, no further search action is required of the facility which transmitted the proposal, and no further messages will be received by this facility unless the search area extends into its flight plan area.

g. Automated systems will accept properly formatted QALQs, INREQs, ALNOTs, INCERFAs, ALERFAs and DETRESFAs and place them on the Search and Rescue list. A SAR alert may be generated at designated workstations. SAR messages must be deleted from the SAR list when the SAR is cancelled.

### 8-2-2. ACTION BY DEPARTURE STATION ON RECEIPT OF QALQ

Upon receipt of the QALQ inquiry, the departure tie-in facility must check locally for any information about the aircraft, and take the following action:

a. If the aircraft is located, notify the destination facility. The destination tie-in facility will close the flight plan and cancel the QALQ.

**EXAMPLE-**

*FF KCOUYFYX  
DTG KPRCYFYX  
QALQ N12345 C1255*

b. If unable to obtain additional information transmit a message to the destination tie-in facility containing all information not previously sent. Include any verbal or written remarks made by the pilot which may be pertinent to the search. The data transmitted may be obtained from the flight plan information or any other pertinent information located in the history files. The QALQ reply must be properly formatted for automated processing.

**EXAMPLE-**

*FF KFTWYFYX  
DTG KDCAFYFYX  
QALQ N12345 C150/X 110 PBF D1235 85  
LIT PAH 0130/0400 CLARENCE NEWBERN  
601 E 12TH MKC 555-123-4567 2 POB  
WHITE/RED*

**NOTE-**

*OASIS facilities, retrieve data from the history files using the SAR Search dialog box, format the message and transmit using the Transmit Search and Rescue dialog box.*

**8-2-3. CANCELLATION OF THE QALQ**

- If the aircraft is located by the destination facility

after the QALQ is sent, transmit a cancellation message addressed to all recipients of the QALQ.

**EXAMPLE-**

*FF KSTLYFYX*

*DTG KHONYFYX*

*QALQ N12345 CNLD*

## Section 3. Information Requests (INREQs)

### 8-3-1. INREQ

If the reply to the QALQ is negative or the aircraft has not been located within 30 minutes after it becomes overdue:

a. The destination tie-in facility/sector must transmit a numbered INREQ message to the departure facility, BASOPS, en route FSSs, and ARTCCs along the route. In addition, address RCC and DUAT vendors using the collective address KSARYCYX.

1. If the departure airport, route of flight, destination airport or alternate airports are within 50 miles of the Great Lakes, include the FSS Cleveland sector as an addressee. The FSS Cleveland sector will relay to Cleveland RCC.

2. The FSS Honolulu sector must give preliminary notification to Honolulu SARCC.

b. Include all information in the INREQ message that will assist in search activities. Retrieve data from the history files, format the message, and transmit.

#### EXAMPLE-

*DD (appropriate eight-character identifiers and KSARYCYX)  
DTG KJBRYFYX*

*JBR001 (appropriate three-character identifiers)  
INREQ N12345 BE36/R 150 PAH D1235  
85 PAH LIT FEXHA 1635 DALE CARNINE  
601 E. 12TH ST. MKC 555-765-4321 2 POB  
BROWN/WHITE (any other information available)*

c. RCC does not have transmit capability. Acknowledgement is not required for messages to RCC.

### 8-3-2. ACTION UPON RECEIPT OF INREQ

Stations receiving an INREQ shall take the following action:

a. Seek information about the aircraft by checking facility records and all flight plan area airports along the proposed route of flight that could accommodate the aircraft. Notify appropriate ATCT facilities. Reply to the INREQ with a numbered message within 1 hour. If unable to complete the search within 1 hour, forward a status report followed by a final report

when the search is complete. If the reply contains pertinent information such as aircraft location or position report, transmit to the destination station.

#### EXAMPLE-

*AISR  
DD KLANYFYX  
DTG KHONYFYX  
HON001 LAN  
INREQ N1234A NO SVCS PROVIDED. FPA  
SRCH INCOMP*

*AISR  
DD KLANYFYX  
DTG KHONYFYX  
HON002 KLANYFYX  
INREQ N1234A NEG INFO*

*MIFC  
ORIGIN:LAN PRECEDENCE:DD TIME: ACK:Y  
ADDR:HON  
TEXT:INREQ N1234A NO SVCS PROVIDED.  
FPA SRCH INCOMP  
ORIGIN:LAN PRECEDENCE:DD TIME: ACK:Y  
ADDR:HON  
TEXT:INREQ N1234A NEG INFO*

#### NOTE-

*Upon receipt of INREQs and ALNOTs, ATCTs and ARTCCs are required to check facility records, report findings to AFSS/FSS that alerted them within 1 hour, and retain in an active status until canceled.*

#### REFERENCE-

*FAAO JO 7110.65, Para 10-3-4, ALNOT.*

b. The destination station shall retransmit the information, as necessary, to all original addressees.

c. Cleveland AFSS. When addressed, shall notify Cleveland U.S. Coast Guard RCC.

d. Hawaiian stations, notify Honolulu SARCC by telephone.

e. Facilities served by the expanded 800 system that have any portion of their incoming calls and/or Service B diverted to another facility shall notify that facility of the INREQ. The facility receiving diverted calls or Service B traffic shall check their records and advise of any information or contact with the aircraft.

### 8-3-3. CANCELLATION OF INREQ

The INREQ originator shall transmit a numbered cancellation message containing the location of the

aircraft to all INREQ addressees when the aircraft is located. Notify associated ATCT facilities.

**EXAMPLE-**

*AISR*

*DD (appropriate eight-character identifiers including KSARYCYX)*

*DTG KLOUYFYX*

*LOU001 (appropriate three-character identifiers)*

*INREQ N1234A CNLD LCTD BWG*

*MIFC*

*ORIGIN:FOD PRECEDENCE:DD TIME: ACK:Y*

*ADDR:(appropriate three-character identifiers and KSARYCYX)TEXT:INREQ N1234A CNLD LCTD DSM*

**NOTE-**

*OASIS facilities, transmit the INREQ cancellation using the Transmit Search and Rescue dialog box.*

# Chapter 9. FAA Weather Services

## Section 1. General

### 9-1-1. PURPOSE

Surface meteorological observations are filed at scheduled and unscheduled intervals with stations having sending capability to WMSC for dissemination on the Service A domestic aviation weather system. These reports are aviation routine weather reports (METAR) and aviation selected special weather (SPECI). All reports will include a report type and the six-digit time of the observation. Computer sorting and validation requires exact adherence to format and procedure at all times.

### 9-1-2. SCHEDULED TRANSMISSION TIMES

**a. METAR REPORTS.** Prepare and code METAR reports for transmission between H+55 and H+00.

**b. SPECI AND DELAYED OR CORRECTED REPORTS.** Transmit SPECI, delayed or corrected reports as soon as possible after H+00.

### 9-1-3. DISTRIBUTION

Most meteorological and NOTAM data exchanged outside of the facility is dependent on the Weather Message Switching Center Replacement (WMSCR). It is important to adhere to strict format and procedures during normal operations, as well as during system interruption periods.

**a. Circuit interruption.** Notify WMSCR and/or NADIN and the appropriate Telco servicing company and/or technical help desk.

**b. Record the circuit and/or equipment identification numbers in all outage reports.** Facilities should obtain and record ticket numbers provided by the Telco authority and/or technical help desk.

**c. WMSCR telephone numbers are as follows:**

WMSCR (KNKAWMSC):  
Atlanta 770-210-7931.  
Salt Lake City 801-320-2045.



- g. Solicit from other air traffic facilities.

### 9-2-11. PIREP CLASSIFICATION

Categorize PIREPs as follows:

a. **URGENT.** The following weather phenomena shall be classified as an URGENT (UUA) PIREP:

1. Tornadoes, funnel clouds, or waterspouts.
2. Severe or extreme turbulence (including clear air turbulence).
3. Severe icing.
4. Hail.
5. Low level wind shear. Classify LLWS PIREPs as UUA if the pilot reports air speed fluctuations of 10 knots or more. Classify reports of LLWS with air speed fluctuations less than 10 knots as routine. If air speed fluctuation is not reported, classify PIREP as UUA.

**NOTE-**

*LLWS defined as windshear within 2,000 feet of the surface.*

6. Volcanic ash clouds.
7. Any other weather phenomena reported which are considered by the specialist as being hazardous, or potentially hazardous, to flight operations.

b. **ROUTINE.** Classify as ROUTINE (UA) all PIREPs received except those listed above.

### 9-2-12. PIREP HANDLING

Upon receipt of a PIREP, accomplish the following:

- a. Urgent.
  1. Deliver to the ARTCC Weather Coordinator as soon as possible.
  2. Deliver to the associated WSO as soon as possible.
  3. Enter on Service A at the first opportunity.
  4. Use in weather briefings, as appropriate.
- b. Routine.
  1. Transmit on Service A as soon as practical.

2. Broadcast in accordance with established procedures in Chapter 2.

3. Use in weather briefings, as appropriate.

### 9-2-13. OFFSHORE COASTAL ROUTES

When your station has been given responsibility for collecting offshore coastal route PIREPs:

a. Include the coastal water area when soliciting PIREPs. At least one PIREP is required hourly regardless of weather conditions.

b. Pacific. Hawaiian Island station areas coincide with the Honolulu ARTCC sectors and the entire Hawaiian area is designated as offshore areas for PIREP purposes.

**NOTE-**

*The Flight Services Operations Area Office assigns PIREP responsibility for an offshore coastal area, route, or route segment to a specific station. The area assigned will be within the same ARTCC area as the station, and the station shall have adequate air-ground communications coverage over its assigned offshore area.*

### 9-2-14. PIREP PREPARATION

To assure proper dissemination of PIREPs to all system users, the encoding procedures listed below shall be followed:

a. Identify each element by a Text Element Indicator (TEI).

b. Ensure each report includes TEIs for message type, location, time, altitude/flight level, type aircraft, and at least one other to describe the reported phenomena.

c. Precede each TEI, except message type, with a space and a solidus (/).

d. Follow each TEI, except altitude/flight level, with a space.

e. Insert zeros in reported values when the number of digits in the report is less than the number required by the format.

f. Use only authorized aircraft designators and contractions.

g. In the location TEI, include any three-letter identifier to describe locations or routes.

h. Omit entries of TEIs, except as listed in subpara 9-2-14b, for which no data was reported.

**9-2-15. PIREP FORMAT**

Using TEIs as described below, prepare PIREPs for system entry in the following format:

a. UUA or UA. Message type – Urgent or Routine PIREP.

b. /OV.

1. Location in reference to a VHF NAVAID or an airport, using the three or four alphanumeric identifier. If appropriate, encode the identifier, then three digits to define a radial and three digits to define the distance in nautical miles.

**EXAMPLE-**

/OV KJFK  
/OV KJFK107080  
/OV KFMG233016/RM RNO 10SW

2. Route segment. Two or more fixes to describe a route.

**EXAMPLE-**

/OV KSTL-KMKC  
/OV KSTL090030-KMKC045015

c. /TM. Time that the reported phenomenon occurred or was encountered. Report time in four digits UTC.

**EXAMPLE-**

/TM 1315

d. /FL. Altitude/flight level. Enter the altitude in hundreds of feet (MSL) where the phenomenon was first encountered. If not known, enter UNKN. If the aircraft was climbing or descending, enter the appropriate contraction (DURC or DURD) in the remarks/RM TEI. If the condition was encountered within a layer, enter the altitude range within the appropriate TEI describing the condition.

**EXAMPLE-**

/FL093  
/FL310  
/FLUNKN /RM DURC

e. /TP. Type aircraft. Enter aircraft type. If not known, enter UNKN. Icing and turbulence reports must always include the type aircraft.

**EXAMPLE-**

/TP AEST  
/TP B74A  
/TP P28R  
/TP UNKN

f. /SK. Sky condition. Report height of cloud bases, tops, and cloud coverage as follows:

1. Enter the height of the base of a layer of clouds in hundreds of feet (MSL). Enter the top of a layer in hundreds of feet (MSL) preceded by the word “-TOP.” If reported as clear above the highest cloud layer, enter a space and “SKC” following the reported level.

**EXAMPLE-**

/SK OVC100-TOP110/ SKC  
/SK OVC015-TOP035/OVC230  
/SK OVC-TOP085  
/SK TOP090

2. Use authorized contractions for cloud cover.

**EXAMPLE-**

BKN  
FEW  
OVC  
SCT  
SKC

3. Cloud cover amount ranges will be entered with a hyphen and no spaces separating the amounts; i.e., BKN-OVC.

**EXAMPLE-**

/SK SCT-BKN050-TOP100  
/SK BKN-OVCUNKN-TOP060/BKN120-TOP150/ SKC

4. Unknown heights are indicated by the contraction UNKN.

**EXAMPLE-**

/SK OVC065-TOPUNKN

5. If a pilot indicates he/she is in the clouds, enter IMC in the remarks.

**EXAMPLE-**

/SK OVC065-TOPUNKN /RM IMC

6. When more than one layer is reported, separate layers by a solidus (/).

g. /WX. Flight visibility and flight weather. Report weather conditions encountered by the pilot as follows:

1. Flight visibility, if reported, will be the first entry in the /WX field. Enter as FV followed by a two-digit visibility value rounded down, if necessary, to the nearest whole statute mile and append “SM” (FV03SM). If visibility is reported as unrestricted, enter FV99SM.

2. Enter flight weather types using one or more of the standard surface weather reporting symbols contained in TBL 9-2-1.

**TBL 9-2-1  
Weather Type and Symbols**

Type	METAR Code
Drifting / Blowing Snow	DRSN/BLSN
Drifting Dust	DRDU
Drifting Sand	DRSA
Drizzle/Freezing Drizzle	DZ/FZDZ
Dust / Blowing Dust	DU/BLDU
Duststorm	DS
Fog (vis < 5/8SM)	FG
Freezing Fog	FZFG
Freezing Rain	FZRA
Funnel Cloud	FC
Hail (aprx 1/4" dia or more)	GR
Hail Shower	SHGR
Haze	HZ
Ice Crystals	IC
Ice Pellets/ Showers	PL/SHPL
Mist (vis 5/8SM or more)	BR
Patchy Fog	BCFG
Patchy Fog on part of Arpt	PRFG
Rain / Showers	RA/SHRA
Sand / Blowing Sand	SA/BLSA
Sandstorms	SS
Shallow Fog	MIFG
Sml Hail/Snow Pellet Showers	SHGS
Sml Hail/Snow Pellets	GS
Smoke	FU
Snow Grains	SG
Snow / Showers	SN/SHSN
Spray	PY
Squalls	SQ
Thunderstorm	TS
Tornado/Waterspout	+FC
Unknown Precipitation	UP
Volcanic Ash	VA
Well developed Dust/Sand Whirls	PO

3. Intensity of precipitation (- for light, no qualifier for moderate, and + for heavy) shall be indicated with precipitation types, except ice crystals and hail, including those associated with a thunderstorm and those of a showery nature.

4. Intensity of obscurations shall be ascribed as moderate or + heavy for dust and sand storms only. No intensity for blowing dust, blowing sand, or blowing snow.

**EXAMPLE-**  
/WX FV01SM +DS000-TOP083/ SKC /RM DURC

5. When more than one form of precipitation is combined in the report, the dominant type shall be reported first.

**EXAMPLE-**  
/WX FV00SM +TSRAGR  
/WX FV02SM BRHZ000-TOP083

6. When FC is entered in /WX, FUNNEL CLOUD is spelled out on /RM. When +FC is entered in /WX, TORNADO or WATERSPOUT is spelled out in the /RM TEI.

**EXAMPLE-**  
/WX FC /RM FUNNEL CLOUD  
/WX +FC /RM TORNADO or WATERSPOUT

7. When the size of hail is stated, enter in 1/4" increments in remarks /RM TEI.

8. The proximity qualifier VC (Vicinity) is only used with TS, FG, FC, +FC, SH, PO, BLDU, BLSA, and BLSN.

**EXAMPLE-**  
/WX FV02SM BLDU000-TOP083 VC W

9. When more than one type of weather is reported enter in the following order: 1) TORNADO, WATERSPOUT, OR FUNNEL CLOUD; 2) Thunderstorm with or without associated precipitation; 3) Weather phenomena in order of decreasing predominance. No more than three groups in a single PIREP.

10. Weather layers shall be entered with the base and/or top of the layer when reported. Use the same format as in the /SK TEI.

**EXAMPLE-**  
/WX FU002-TOP030

**h.** /TA. Air Temperature. Report outside air temperature using two digits in degrees Celsius. Prefix negative temperatures with an M; e.g., /TA 08 or /TA M08.

**i.** /WV. Wind direction and speed. Encode using three digits to indicate wind direction (magnetic) and two or three digits to indicate reported wind speed. When the reported speed is less than 10 Kts use a leading zero. The wind group will always have "KT" appended.

**EXAMPLE-**

*/WV 28080KT  
/WV 28008KT  
/WV 280105KT*

**j.** /TB. Turbulence. Report intensity, type, and altitude as follows:

**1.** Intensity. Enter duration if reported by the pilot (intermittent, occasional continuous) and intensity using contractions LGT, MOD, SEV, or EXTRM. Separate a range or variation of intensity with a hyphen; e.g., MOD-SEV. If turbulence was forecasted, but not encountered, enter NEG.

**2.** Type. Enter CAT or CHOP if reported by the pilot.

**3.** Altitude. Report altitude only if it differs from value reported in /FL. When a layer of turbulence is reported, separate height values with a hyphen. If lower or upper limits are not defined, use BLO or ABV.

**EXAMPLE-**

*/TB LGT 040  
/TB MOD-SEV BLO 080  
/TB MOD-SEV CAT 350  
/TB NEG 120-180  
/TB MOD CHOP 220/NEG 230-280  
/TB MOD CAT ABV 290*

**k.** IC. Icing. Report intensity, type and altitude of icing as follows:

**1.** Intensity. Enter intensity first using contractions TRACE, LGT, MOD, or SEV. Separate reports of a range or variation of intensity with a hyphen. If icing was forecast but not encountered, enter NEG.

**2.** Type. Enter the reported icing type as RIME, CLR, or MX.

**3.** Altitude. Enter the reported icing/altitude only if different from the value reported in the /FL TEI. Use a hyphen to separate reported layers of icing. Use ABV or BLO when a layer is not defined.

**EXAMPLE-**

*/IC LGT-MOD MX 085  
/IC LGT RIME  
/IC MOD RIME BLO 095  
/IC SEV CLR 035-062*

**4.** When icing is reported always report temperature in the /TA TEI.

**l.** /RM. Remarks. Use this TEI to report a phenomenon which is considered important but does not fit in any of the other TEIs. This includes, but is not limited to, low level wind shear (LLWS) reports, thunderstorm lines, coverage and movement, size of hail (1/4" increments), lightning, clouds observed but not encountered, geographical or local description of where the phenomenon occurred, and contrails. Report hazardous weather first. Describe LLWS to the extent possible.

**1.** Wind Shear. +/- 10 Kts or more fluctuations in wind speed, within 2,000 Ft of the surface, require an Urgent (UUA) pilot report. When Low Level Wind Shear is entered in a pilot report enter LLWS as the first remark in the /RM TEI. LLWS may be reported as -, +, or +/- depending on how it effects the aircraft. If the location is different than the /OV or /FL fields, include the location in the remarks.

**EXAMPLE-**

*/RM LLWS +/-15 KT SFC-008 DURC RY22 JFK*

**2.** FUNNEL CLOUD, TORNADO, and WATERSPOUT are entered with the direction of movement if reported.

**EXAMPLE-**

*/RM TORNADO E MOVE*

**3.** Thunderstorm. Enter coverage (ISOL, FEW, SCT, NMRS) and description (LN,BKN LN,SLD LN) if reported. Follow with "TS," the location and movement, and the type of lightning if reported.

**EXAMPLE-**

*/RM NMRS TS S MOVE GRI/2*

**4.** Lightning. Enter frequency (OCNL, FRQ, CONS), followed by type (LTGIC, LTGCC, LTGCG, LTGCA, or combinations), if reported.

**EXAMPLE-**

*/RM OCNL LTGICCG*

**5.** Electric Discharge Enter DISCHARGE followed by the altitude.

**EXAMPLE-**

*/RM DISCHARGE 120*

**6.** Clouds. Use remarks when clouds can be seen but were not encountered and reported in /SK.

**EXAMPLE-**

*/RM CB E MOV N  
/RM OVC BLO*

**7.** Plain Language. If specific phraseology is not adequate, use plain language to describe the

phenomena or local geographic locations. Include remarks that do not fit in other TEIs like DURC, DURD, RCA, TOP, TOC, or CONTRAILS.

**EXAMPLE-**

*/RM BUMPY VERY ROUGH RIDE  
/RM CONTRAILS  
/UA/OV BIS270030/TM 1445/FL060/TP CVLT/TB  
LGT /RM Donner Summit Pass*

**8. Volcanic Eruption.** Volcanic Ash alone is an Urgent PIREP. A report of volcanic activity shall include as much information as possible. Include name of the mountain, ash cloud and movement, height of the top and bottom of the ash, etc. If received from other than a pilot, enter Aircraft "UNKN," Flight Level "UNKN," and /RM UNOFFICIAL.

**EXAMPLE-**

*UUA/OV ANC240075/TM 2110/FL370/TP DC10/WX  
VA/RM VOLCANIC ERUPTION 2008Z MT AUGUSTINE  
ASH 40S MOV SSE*

**9.** The "SKYSPOTTER" program is a result of a recommendation from the Safer Skies FAA/INDUSTRY Joint Safety Analysis and Implementation Teams. The term "SKYSPOTTER" indicates that a pilot has received specialized training in observing and reporting inflight weather phenomenon, pilot weather reports, or PIREPs.

(a) When the FSS Air Traffic Control Specialist receives a PIREP from a pilot identifying themselves as a "SKYSPOTTER" aircraft, the

additional comment "/AWC" shall be added at the end of the remarks section of the PIREP.

**EXAMPLE-**

*PIREP Text/RM Text/AWC*

## 9-2-16. PIREP ENCODING

PIREPs shall be coded to ensure the PIREP is stored and subsequently distributed with the surface observation location nearest the condition being reported. If more than one SA location is appropriate, select the location that provides the greatest distribution and/or prominence, such as a major hub airport.

## 9-2-17. PIREP ORDER

Prepare PIREPs by routes from the reported location to an adjacent location, if possible. Start a multiple PIREP transmission with the most northerly route and progress clockwise. Place each PIREP on a separate line.

**EXAMPLE-**

*UA/OV MRB045030/TM 1645/FL060  
/TP UNKN /SK OVC055  
UA/OV MRB-DCA/TM 1630/FL090/TP  
AEST /RM BTWN LYRS 090  
UA/OV MRB-EKN/TM 1640/FL060/TP  
P28R /SK BKN-OVC020-TOP040/RM  
RDGS OBSCD*



## Section 4. Wind and Temperature Aloft Forecast (FB)

### 9-4-1. GENERAL

Wind and Temperature Aloft Forecasts (FB) are computer-prepared and issued by the National Centers for Environmental Prediction (NCEP) at Suitland, Maryland. The forecasts are valid 6 (FB1/8), 12 (FB2/9), and 24 (FB 3/10) hours after the observation date/times of 0000Z, 0600Z, 1200Z, and 1800Z upon which they are based.

### 9-4-2. LEVELS FORECAST

Dependent upon station elevation, FB1/2/3 wind forecasts are issued for the following levels: 3, 6, 9, 12, 18, 24, 30, 34, and 39 thousand foot levels. The first level for which a wind forecast is issued is 1,500 feet or more above the station elevation. Temperature is forecast for all wind levels, except the 3,000 foot level, that are 2,500 feet or more above the station. The minus signs are deleted preceding the temperatures at the 30, 34, and 39 thousand foot levels. FB8/9/10 are for the 45,000 and 53,000 foot levels. They are not normally disseminated on Service A, but are available on request/reply.

### 9-4-3. SCHEDULES

*TBL 9-4-1*

**Wind/Temperature Aloft Forecast Schedules**

<i>Type</i>	<i>Base Data Time</i>	<i>Valid for</i>	<i>For use (period)</i>
FB1/8	0000Z	0600Z	0200-0900Z
FB2/9	0000Z	1200Z	0900-1800Z
FB3/10	0000Z	0000Z	1800-0600Z
FB1/8	0600Z	1200Z	0800-1500Z
FB2/9	0600Z	1800Z	1500-0000Z
FB3/10	0600Z	0600Z	0000-1200Z
FB1/8	1200Z	1800Z	1400-2100Z
FB2/9	1200Z	0000Z	2100-0600Z
FB3/10	1200Z	1200Z	0600-1800Z
FB1/8	1800Z	0000Z	2000-0300Z
FB2/9	1800Z	0600Z	0300-1200Z
FB3/10	1800Z	1800Z	1200-0000Z

### 9-4-4. DISTRIBUTION

All FBs are transmitted to the WMSC by NCEP. Distribution by the WMSC is accomplished in accordance with established program requirements.



## Section 5. Aviation Terminal Forecast (TAF)

### 9-5-1. GENERAL

NWS forecast offices prepare and forward twenty-four or thirty-hour Terminal Forecasts (TAF) for selected U.S. terminals to the WMSCR for distribution. Similar forecasts for the U.S. Military, Canada, and Mexico are sent to WMSC from the NCEP and Air Force Weather Agency (AFWA) for distribution.

### 9-5-2. TERMINAL FORECAST SCHEDULES

TAFs are prepared four times a day and are issued at 2330, 0530, 1130, and 1730 UTC.

### 9-5-3. DISTRIBUTION

Distribution of TAFs is made by WMSCR in accordance with a predetermined list for each circuit based upon intracircuit coordinated requirements. WMSCR Identifier Index of Individual Aviation Weather Reports. (Use RQ Procedures.)



## Section 6. Aviation Area Forecast (FA)

### 9-6-1. GENERAL

a. Aviation Area Forecasts (FA) are available through the WMSC and provide an overview of weather conditions which could impact aviation operations. FAs are issued by the Aviation Weather Unit (AWU) in Kansas City, Missouri, for the conterminous U.S. land and coastal waters by areas (Pacific Coast, Rocky Mountain, North-Central U.S., South-Central U.S., Northeast U.S., Southeast U.S.). The areas are delineated along state boundaries and are specified in National Weather Service Instruction 10-811. The FAs for Alaska are issued by the Alaska Aviation Weather Unit (AAWU); the FAs for Hawaii are issued by the WFO in Honolulu. Canadian and Mexican FAs are also available through the WMSC.

b. FAs consist of two sections with each section being transmitted with a unique communications header. This allows each section to be replaced when needed instead of amending or correcting the affected FA, to provide a current and complete area forecast. Inflight advisories (including WSTs) amend the FA; however, when necessary, the appropriate section of the FA will be replaced by the issuing NWS office. The two FA sections and their communications headers are as follows (iii denotes the FA location identifier; e.g., ANC, CHI, etc.):

1. iiiS-Synopsis.
2. iiiI-Icing and Freezing Level.
3. iiiT-Turbulence.
4. iiiC-Significant Clouds and Weather.

### 9-6-2. AVIATION AREA FORECAST (FA) SCHEDULE

a. FAs are prepared three times a day in the contiguous 48 States and Alaska, and four times a day in Hawaii. All scheduled transmission times are in UTC and listed by daylight/standard times. The times in the contiguous U.S. are in [TBL 9-6-1](#).

*TBL 9-6-1*  
**Area Forecast Schedule**

<i>Time Zones</i>	<i>Areas</i>	<i>Issuance Times</i>
Central	CHI/DFW	0130/0230
		0930/1030
		1830/1930
Eastern	BOS/MIA	0030/0130
		0830/0930
		1730/1830
Mountain	SLC	0230/0330
		1030/1130
		1930/2030
Pacific	SFO	0230/0330
		1030/1130
		1930/2030

b. The Alaska and Pacific NWS Regional Headquarters have authority to schedule FAs to meet user requirements. These are issued at the following times. (See [TBL 9-6-2](#).)

*TBL 9-6-2*  
**Alaska/Pacific Area Forecast Schedule**

<i>Issuance</i>	<i>ANC and FAI</i>	<i>JNU</i>	<i>HNL</i>
1st	0640Z	0640Z	0340Z
2nd	1440Z	1340Z	0940Z
3rd	2240Z	2240Z	1540Z
4th			2140Z

c. The Gulf FA is prepared twice daily. The issuance times in UTC or Z depend on whether LDT/LST is in effect and are as follows:

1. 1st issuance 1040/1140.
2. 2nd issuance 1740/1840.

### 9-6-3. DISTRIBUTION

Distribution of FAs is made by WMSC in accordance with a predetermined list for each circuit based upon intracircuit coordinated requirements.



## Section 10. Meteorological Impact Statement (MIS)

### 9-10-1. GENERAL

A Meteorological Impact Statement (MIS) is an unscheduled planning forecast. It is an air traffic oriented forecast intended for ARTCC, Air Traffic Control System Command Center Weather Unit (DCCWU), Air Traffic Control System Command Center (ATCSCC), and hub terminal air traffic facility specialists responsible for making flow control and flow control-related decisions. It enables these specialists to include the impact of expected, specified local and/or national weather conditions in making these decisions.

### 9-10-2. CRITERIA

a. The MIS describes adverse weather conditions which are expected to begin generally within 4-to-12 hours after the statement's issuance. It can also describe conditions existing when the CWSU begins daily operations if the existing conditions will continue for at least 3 hours, or it can describe conditions existing at the time a briefing is issued. As a minimum, an MIS will be issued when:

1. Any of the following conditions occur or are forecast to occur:

(a) Conditions meeting Convective SIGMET criteria. (See National Weather Service Instruction 10-811.)

(b) Moderate or greater icing.

(c) Moderate or greater turbulence.

(d) Heavy precipitation.

(e) Freezing precipitation.

(f) Conditions at, or approaching, low IFR. (See National Weather Service Instruction 10-813.)

(g) Surface winds, including gusts of 30 knots or greater.

(h) Low level wind shear (within 2,000 feet of the surface).

(i) Volcanic ash, dust storms, or sandstorms.

#### REFERENCE-

National Weather Service Instruction 10-803, Support to Air Traffic Control Facilities

2. The above conditions will, in the forecaster's judgment, impact the flow of air traffic within the ARTCC area of responsibility.

3. The forecast lead time (the time between the issuance of an MIS and the onset of the phenomenon), in the forecaster's judgment, is sufficient to make the issuance of a CWA premature or unnecessary.

b. The MIS will describe the location of the phenomenon using ARTCC relevant points of reference, such as VORs, and will include the height, extent, intensity, and movement of the phenomenon. MISs will be numbered sequentially, beginning at midnight local time each day. Forecasters should be aware that the MIS is disseminated and stored as a replaceable product. This means that each MIS issuance must contain all of the pertinent and known details of the conditions meeting MIS issuance criteria including the continuing conditions described in previously issued MISs.

c. The format of the MIS communications header is: (ARTCC designator) MIS (issuance number) VALID (issuance date/time-valid until date/time in UTC)/..FOR ATC PLANNING PURPOSES ONLY../(text).

#### EXAMPLE-

ZJX MIS 02 VALID 111345-120100

..FOR ATC PLANNING PURPOSES ONLY..

SCT TSTMS WITH HVY PCPN ALG N/S RTES S OF ILM AND E OF SAV/OMN LN DVLPG BY 16Z MAX TOPS 350/400. ELSW ZJX AREA TSTMS WITH HVY PCPN FRMG IN SHRT LNS OR CLUSTERS AFT 17Z WITH FEW RCHG EXTRM. CELLS MOVG GENLY SEWD 10 KTS CONT THRU 00Z CONDS LWRG OCNLY TO LIFR IN HVY PCPN AFT 17Z.

### 9-10-3. DISTRIBUTION

The MIS will be distributed to ARTCC area supervisors and traffic management coordinators and will be entered through FAA AISR and other communications media to make it available for dissemination to other FAA and NWS facilities, including adjacent CWSUs and locally designated hub terminal facilities. Distribution may be made directly by the CWSU meteorologist or through the weather coordinator position. When a MIS is issued concurrently with a briefing, the MIS will be

distributed through those media to facilities mentioned above which do not receive an alphanumeric version of the briefing's contents.

# Chapter 10. Data Communication Systems

## Section 1. General

### 10-1-1. TYPES OF DATA ACCEPTABLE ON FAA DATA COMMUNICATIONS SYSTEMS

- a. Distress messages.
- b. Messages concerning safety to human life.
- c. Flight movement/control/safety messages.
- d. Aviation meteorological observations/forecasts/warnings.
- e. Administrative messages which pertain to FAA personnel, facilities, or property.
- f. Notice to Airmen (NOTAM) data.

### 10-1-2. PRIORITY MESSAGES

(See [TBL 10-1-1.](#))

*TBL 10-1-1*  
**Priority Messages**

<i>Priority</i>	<i>Message Types</i>	<i>Action Required</i>
SS	Involves safety of life or property. Restricted to emergency situations.	Transmit immediately to all addressees and deliver to all internal/external offices you are responsible for.
DD	Priority operational and circuit control data.	Same as above.
FF on local agreements	Flight movement and control data relating safe/efficient operation of aircraft. Also for administrative data of a directive nature.	Transmit immediately, make internal/external delivery during next available administrative work day if office is closed. Delivery may be required to duty officer, dependent.
GG	Meteorological, NOTAM and routine administrative data.	Transmit immediately, make internal/external delivery by 10:30AM of the next business day.

### 10-1-3. GENERAL NOTICES

a. GENOTs are transmitted by Washington Headquarters Message Center (RWA/KRWAYAYX) via NADIN.

b. RENOTs are transmitted through NADIN by the ROC.

c. All administrative centers (headquarters/regional/aeronautical offices) are staffed 24 hours per day. The FAA Technical Center is only staffed from 0600-2200 local, from Monday through Friday. Messages sent to them will be acknowledged/disseminated as appropriate during those hours.

d. Administrative messages should be restricted to 20 lines of text and 69 characters per line. Messages exceeding this length shall be sent in individual parts. Facilities who miss a RENOT or GENOT should attempt to obtain it from adjacent facilities, then the ROC. ROC will relay requests to RWA for retransmission of GENOTs.

**NOTE-**

*OASIS will automatically break down long General Facility Messages (exceeding 20 lines) into parts before they are transmitted.*

e. Facilities receiving administrative messages shall not acknowledge unless the message is numbered. Message originators desiring an acknowledgement shall add a number line as the first line of text.

**EXAMPLE-**

*DCA002 CLE DAY*  
*(TEXT)*

### 10-1-4. GROUP CODES

a. NADIN has established group codes to allow message originators to input a single address, which will result in dissemination to a selected number of facilities.

b. System-wide group codes have been established for the primary use of RWA/KRWAYAYX and the ATC System Command Center (KCFCZDZX). These codes are KDOMYFYX and KDOMYYYX respectively.

c. A group code has also been established for each regional office and ARTCC primarily for the issuance of RENOTs and all ARTCC instructions. They are as follows for Regional Offices in [TBL 10-1-2](#) and ARTCCs in [TBL 10-1-3](#).

**TBL 10-1-2  
Region Group Code**

Region	ID	Region	ID
Alaska	PANCYGY X	Northwest Mountain	XST
Central	XKC	Southern	XTL
Eastern	XNY	Southwest	XFE
Great Lakes	XGC	Western- Pacific	XLA
New England	XBW		

**TBL 10-1-3  
ARTCC Group Code**

ARTCC	ID	ARTCC	ID
Albuquerque	XXI	Kansas City	XXS
Atlanta	XXN	Los Angeles	XXF
Boston	XXU	Memphis	XXM
Chicago	XXC	Miami	XXL
Cleveland	XXD	Minneapolis	XXE
Denver	XXO	New York	XXR
Ft. Worth	XXJ	Oakland	XXG
Houston	XXH	Salt Lake City	XXP
Indianapolis	XXA	Seattle	XXT
Jacksonville	XXK	Washington	XXQ

**NOTE-**

Except in Alaska, all of the group codes can be converted to a full eight-character address by placing a K in front of and YFYX following the three characters listed in [TBL 10-1-2](#) and [TBL 10-1-3](#).

d. The following seven-group codes were established that include multiple states:

KFSSYFCE (CENTRAL AREA)

AR-IN-IL-KY-MO-TN

KFSSYFEA (EAST COAST AREA)

MD-NC-NJ-VA-WV

KFSSYFNE (NORTHEAST AREA)

CT-ME-VT

KFSSYFNP (NORTHERN PLAINS AREA)

ID-MT-ND-NE-SD-WY

KFSSYFSE (SOUTHEAST AREA)

AL-FL-GA

KFSSYFWC (WEST COAST AREA)

AZ-CA-NV-OR

e. Using a group code, the operational system automatically transmits all VFR flight plans to the Drug Enforcement Administration in addition to the destination at the time of activation.

**NOTE-**

All filed flight plans, as well as all logged inflight, preflight, flight watch and contact briefings, are transmitted to the Air and Marine Operations Center (AMOC) using the address KRIVYYYY. These transmissions are transparent.

f. The group code KSARYCYX has been established to assist in the processing of INREQs and ALNOTs.

**10-1-5. MESSAGE FORMATS**

a. Specialists should adhere to the transmit formats defined for the operational system in use. Failure to comply can result in the message being rejected by either NADIN or WMSCR. This may result in non-delivery to the intended recipients.

b. Full keyboard punctuation is allowed on all messages destined for internal FAA, DOD, NWS dissemination. For international dissemination, punctuation should be limited to those characters identified in pertinent ICAO documents.

c. Contractions and abbreviations should be used to shorten data transmissions to the extent possible. In no case should one be used that is not documented in FAAO JO 7340.2, Contractions. For international communications, be aware that the foreign correspondent may not understand all FAA contractions and may not have a full command of the English language. Care should be exercised in international communications to avoid slang phrases and non-ICAO approved abbreviations.

d. The operational system can obtain weather or aeronautical information, including WMO collectives, by request/reply for data not stored in the system. Specific examples can be found in each operational system user guide.

**10-1-6. WMSCR NEGATIVE RESPONSE MESSAGES**

a. WMSCR automatically generates a negative response to request/reply inputs for which it cannot deliver.

1. NO REPORT AVBL. This response means the current data has not been received by WMSCR.

2. NOT IN SYSTEM. This response means

WMSCR does not receive and store the requested data.

3. INVALID FORMAT. This response means the computer cannot process the request because of an input error.

b. WMSCR will generate only one negative response message to a request/reply transmission that requests multiple reports and only when none of the data requested can be delivered.



# Chapter 12. Interphone Communications

## Section 1. General

### 12-1-1. PURPOSE

**a.** The procedures and phraseologies contained in this chapter apply to interfacility and intrafacility telephone communications conducted from any position of operation.

**b.** Interphone use is restricted to authorized official business only.

**c.** Monitor interphones continuously. At facilities without ringers keep speaker volume at a level sufficient to hear all transmissions. In the event of interphone failure, use authorized back-up procedures; i.e., commercial telephone, aircraft radio relay.

**d.** Use the words or phrases in interphone communications as contained in the Pilot/Controller Glossary.

### 12-1-2. INTERPHONE TRANSMISSION PRIORITIES

Give priority to interphone transmissions as follows:

**a. First priority.** Emergency messages including essential information on aircraft accidents or suspected accidents. After actual emergency has passed, give a lower priority to messages relating to an accident.

**b. Second priority.** Clearance and control instructions.

**c. Third priority.** Movement and control messages using the following order of precedence when possible:

1. Progress reports.
2. Departure or arrival reports.
3. Flight plans.

**d. Fourth priority.** Movement messages on VFR aircraft.

**e. Fifth priority.** General messages; e.g., outages.

### 12-1-3. PRIORITY INTERRUPTION

The words “break for emergency” or “break for control” may be used to interrupt lower priority messages when it is necessary to transmit an emergency or control message.

### 12-1-4. MESSAGE INITIATION

Initiate interphone messages as follows:

- a.** Assure line is not in use.

**PHRASEOLOGY-**  
**LINE CLEAR?**

**b.** If line is not in use, establish contact with the desired facility and/or position.

**EXAMPLE-**

*Manual signaling (Ring Line):*

*FSS-(Signals center manually).*

*Center- “Anchorage Center” or “Sector D-5.”*

*FSS- “Kenai radio. Kenai progress Apache One Two Three.”*

*Center- “Go ahead”*

*FSS- “Over Kenai...etc.” “L-H”*

*Center- “Roger Apache One Two Three.” “C-M”*

*Voice signaling (Shout Line):*

*FSS- “Seattle Center, McMinnville Radio, Clearance Request.”*

*Center “Seattle Center, Go Ahead.”*

*FSS- “Request Clearance, Army .....etc.”*

**c.** When initiating calls on interphone voice lines, identify the line on which the call is being made.

**EXAMPLE-**

*FSS - “Indianapolis Center, Dayton Radio on the 82 line, departure.”*

**d.** When calling or replying on an interphone line which connects only two facilities, you may omit the facility’s name.

**EXAMPLE-**

*“Radio, inbound estimate.”*

- e. FSS.**

**1.** Inflight position. State the name of the FSS/sector followed by the word RADIO and position, if appropriate.

**EXAMPLE-**

*“Fairbanks Radio.”*

2. Flight Watch position. State the name of the associated ARTCC followed by the words FLIGHT WATCH.

**EXAMPLE-**

*“Indianapolis Flight Watch.”*

**12-1-5. MESSAGE TERMINATION**

Terminate interphone messages with your operating initials.

**EXAMPLE-**

*“V-N.”*

# Chapter 13. Phraseology

## Section 1. General

### 13-1-1. PURPOSE

This chapter prescribes standardized procedures and phraseologies to be used by flight service personnel when communicating weather and aeronautical information in broadcast, radiotelephone, and interphone communications. Where position or procedure-specific phraseology is required, reference is to be made to the relevant chapter of this order.

### 13-1-2. PHRASEOLOGY

The annotation PHRASEOLOGY denotes the prescribed words and/or phrases to be used in communications.

**NOTE-**

*Specialists may, after first using the prescribed phraseology for a specific procedure, rephrase the message to ensure the content is understood. Good judgment shall be exercised when using nonstandard phraseology.*

### 13-1-3. WORDS AND PHRASES

Use the words or phrases in broadcast, radiotelephone, and interphone communications as contained in the Pilot/Controller Glossary.

### 13-1-4. ANNOUNCING MISSING ITEMS

With the exception of RVR, announce the word “missing” when any item or component of a weather report is not reported, or in place of unreadable or obviously incorrect items or portions of weather reports. When appropriate, instead of speaking the name of several locations with missing reports, announce: “Other scheduled reports missing.”

**NOTE-**

*On occasion, a parameter from an automated observation may be reported as missing in the body of the report but is available as a manually reported parameter in the remarks section. When the report is spoken, include the manually reported element in its proper sequence within the report.*

### 13-1-5. ICAO PHONETICS

Use the ICAO pronunciation of numbers and, as necessary, individual letters for clarity. The ICAO radiotelephony alphabet and pronunciation guide are contained in TBL 13-1-1.

*TBL 13-1-1*

#### ICAO Pronunciation

<i>Character</i>	<i>Word</i>	<i>Pronunciation</i>
0	Zero	ZEE-RO
1	One	WUN
2	Two	TOO
3	Three	TREE
4	Four	<b>FOW-ER</b>
5	Five	FIFE
6	Six	SIX
7	Seven	<b>SEV-EN</b>
8	Eight	AIT
9	Nine	<b>NIN-ER</b>
A	Alfa	<b>AL-FAH</b>
B	Bravo	<b>BRAH-VOH</b>
C	Charlie	<b>CHAR-LEE</b>
D	Delta	<b>DELL-TAH</b>
E	Echo	<b>ECK-OH</b>
F	Foxtrot	<b>FOKS-TROT</b>
G	Golf	GOLF
H	Hotel	<b>HOH-TELL</b>
I	India	<b>IN-DEE-AH</b>
J	Juliett	<b>JEW-LEE-ETT</b>
K	Kilo	<b>KEY-LOH</b>
L	Lima	<b>LEE-MAH</b>
M	Mike	MIKE
N	November	<b>NO-VEM-BER</b>
O	Oscar	<b>OSS-CAR</b>
P	Papa	<b>PAH-PAH</b>
Q	Quebec	<b>KEH-BECK</b>
R	Romeo	<b>ROW-ME-OH</b>
S	Sierra	<b>SEE-AIR-AH</b>
T	Tango	<b>TANG-GO</b>
U	Uniform	<b>YOU-NEE-FORM</b>
V	Victor	<b>VIK-TAH</b>
W	Whiskey	<b>WISS-KEY</b>

X	X-ray	<b>ECKS-RAY</b>
Y	Yankee	<b>YANG-KEY</b>
Z	Zulu	<b>ZOO-LOO</b>

**NOTE-**

Syllables to be emphasized in pronunciation are in bold face.

### 13-1-6. RELAY OF ATC COMMUNICATIONS

Prefix a clearance, information, or a request for information which will be relayed from a control facility to an aircraft with the appropriate phrase “A-T-C clears,” “A-T-C advises,” or “A-T-C requests.”

### 13-1-7. EXPEDITIOUS COMPLIANCE

a. Use the word “immediately” only when expeditious compliance is required to avoid an imminent situation.

b. Use the word “expedite” only when prompt compliance is required to avoid the development of an imminent situation.

c. In either case, and if time permits, include the reason for this action.

### 13-1-8. WEATHER PHRASEOLOGY

Use the following phraseology and procedures for stating surface weather observations and for information similarly encoded in other aviation weather products and forecasts.

#### a. Location.

1. Announce the geographic name (not the identifier) once.

**EXAMPLE-**  
“Paducah.”

2. When the location name is duplicated within 500 miles, follow the location name with the state name.

**EXAMPLE-**

“Columbus, Ohio.”

3. When weather reports originate at more than one airport at the same geographical location, identify the airport.

**EXAMPLE-**

“Anchorage, Merrill.”

“Chicago, O’Hare.”

4. Where it is considered necessary and is requested by the military base commander, broadcast military observations by stating the location, the name of the airport if different, and the controlling military branch.

**EXAMPLE-**

“Andrews Air Force Base.”

“Elmendorf, Air Force Base.”

“Fort Riley, Marshall Army Air Field.”

“Norfolk Naval Air Station.”

b. If AUTO appears after the date/time element, follow location announcement with the phrase AUTOMATED.

**PHRASEOLOGY-**

(Location) AUTOMATED.

c. If a special report is the most recent observation available, follow the location with the words SPECIAL REPORT, (last two digits of the time) OBSERVATION. Use data from the record report to fill in the items not included in the special observation, such as temperature and dew point.

d. If the weather data is not available, state the location and the word MISSING.

e. Wind Direction and Speed. Announce surface wind direction and speed by stating the word WIND followed by the separate digits of the wind direction to the nearest 10 degrees and the separate digits of the speed. A “G” between two wind speed values is announced as GUSTS. State local wind as it appears in the report. Announce the variability of wind at the end of the wind group. (See TBL 13-1-2.)

8. State the pattern movement referencing the direction to which the echoes are moving and the speed using separate digits. The patterns are decoded L for LINE, C for CELL, and A for AREA. (See TBL 13-1-31.)

**TBL 13-1-31  
Direction of Movement**

<i>Coded</i>	<i>Phraseology</i>
C3640	“CELLS MOVING SOUTH AT FOUR ZERO.”
L2325	“LINE MOVING NORTHEAST AT TWO FIVE.”

9. State the height of the tops in hundreds and/or thousands of feet, and their location by azimuth and distance where indicated. (See TBL 13-1-32.)

**TBL 13-1-32  
Heights-Tops**

<i>Coded</i>	<i>Phraseology</i>
MT350 AT 270/20	“MAX TOP THREE FIVE THOUSAND, TWO ZERO MILES WEST OF (radar site location).”

10. State any remarks after decoding from contractions.

11. Do not announce the letters and numbers comprising the digital radar codes at the end of the radar reports.

12. Do not announce those portions of RAREPs containing information on the location of a hurricane eye. These reports begin with the identifying words eye or center.

13. Following is an example of a RAREP as it appears and as it is broadcast.

**EXAMPLE-**

OKC 1935 LN 8TRW++/+ 86/40 164/60 199/115 15W  
L2425 MT 570 159/65  
AUTO  
^MO1 NO2 ON3 PM34 QM3 RL2 SL9

*“Oklahoma City, Oklahoma City, radar report. Three five observation. A line of eight-tenths coverage thunderstorms with heavy rainshowers increasing in intensity extending from four zero east to six zero south southeast*

*to one one five south southwest of Oklahoma City. One five miles wide. Line moving northeast at two five. Max top five seven thousand, six five southeast of Oklahoma City.”*

**NOTE-**

*All weather radar reports are automated with a scheduled issuance time of H+35. Do not state the word “automated.”*

b. Radar displays. When stating precipitation intensity from a radar display (such as NEXRAD), use the following four categories as appropriate:

1. Light: *(Equates to radar return levels of less than 30 dBZ.)*
2. Moderate: *(Equates to radar return levels of 30 to 40 dBZ.)*
3. Heavy: *(Equates to radar return levels of greater than 40 to 50 dBZ.)*
4. Extreme: *(Equates to radar return levels of greater than 50 dBZ.)*

**13-1-12. WINDS AND TEMPERATURES ALOFT FORECAST (FB)**

When announcing the FB, use the following phraseology and procedures:

- a. State the altitude, then announce wind direction and speed by the separate digits of the wind direction to the 10-degree multiple, the word AT, and the separate digits of the speed.
- b. When the forecast speed is less than 5 knots, the coded group is 9900 and read, LIGHT AND VARIABLE.
- c. Encoded wind speed 100 to 199 knots have 50 added to the direction code and 100 subtracted from the speed.
- d. If wind speed is forecast at 200 knots or greater, the wind group is coded as 199 knots; i.e., 7799 is decoded 270 degrees at 199 knots or greater.
- e. A six-digit group includes forecast temperature. Provide temperatures on request only, stating the word TEMPERATURE followed by the word MINUS, as appropriate, and the separate digits. (See TBL 13-1-33.)

**TBL 13-1-33  
Altitude**

<i>Coded</i>	<i>Phraseology</i>
2707	“(altitude), two seven zero at seven.”
7799	“(altitude), two seven zero at one niner niner or greater.”
850552	“(altitude), three five zero at one zero five, temperature minus five two.”
9900+00	“(altitude), light and variable, temperature zero.”

**13-1-13. NUMBER USAGE**

State numbers as follows:

- a. Serial numbers. The separate digits. (See TBL 13-1-34.)

**TBL 13-1-34  
Serial Numbers**

<i>Number</i>	<i>Phraseology</i>
11,495	“One one four niner five.”
20,069	“Two zero zero six niner.”

- b. Altitudes or flight levels.

- 1. Altitudes. The separate digits of the thousands plus the hundreds. (See TBL 13-1-35.)

**TBL 13-1-35  
Altitudes**

<i>Altitude</i>	<i>Phraseology</i>
5,000	“Five thousand.”
10,000	“One zero thousand.”
11,500	“One one thousand five hundred.”

- 2. Altitudes may be restated in group form for added clarity if the specialist chooses. (See TBL 14-1-36.)

**TBL 13-1-36  
Altitudes - continued**

<i>Altitude</i>	<i>Phraseology</i>
10,000	“Ten thousand.”
11,500	“Eleven thousand five hundred.”

- 3. Flight levels. The words flight level followed by the separate digits of the flight level. (See TBL 13-1-37.)

**TBL 13-1-37  
Flight Levels**

<i>Flight Level</i>	<i>Phraseology</i>
180	“Flight level one eight zero.”
270	“Flight level two seven zero.”

- 4. MDA/DH Altitudes. The words minimum descent altitude or decision height followed by separate digits of the MDA/DH altitude. (See TBL 13-1-38.)

**TBL 13-1-38  
MDA/DH Altitude**

<i>Altitude</i>	<i>Phraseology</i>
486	“Decision height, four eight six.”
1,320	“Minimum descent altitude, one three two zero.”

- c. Time.

- 1. General time information. The four separate digits of the hour and minutes in terms of Coordinated Universal Time (UTC). (See TBL 13-1-39.)

**TBL 13-1-39  
Coordinated Universal Time**

<i>Time</i>	<i>Phraseology</i>
0115 (UTC)	“Zero one one five.”
1315 (UTC)	“One three one five.”

- 2. Upon request. The four separate digits of the hours and minutes in terms of UTC followed by the local time equivalent; or the local time equivalent only. Local time may be based on the 24-hour clock system. (See TBL 13-1-40.)

**TBL 13-1-40  
Coordinated Universal Time**

<i>Time</i>	<i>Phraseology</i>
2:30 p.m. or 2230 (UTC), 2:30 p.m or 2230 (UTC), 1430 PST	“Two thirty P-M. local.” “Two two three zero, two thirty P-M. local.” “Two two three zero, one four three zero Pacific or local.”

- 3. Time check. The word “time” followed by the four separate digits of the hour and minutes, and nearest quarter minute. Fractions of a quarter minute less than 8 seconds are stated as the preceding quarter minute; fractions of a quarter minute of 8 seconds or more are stated as the succeeding quarter minute. (See TBL 13-1-41.)

## **Appendix A. ICAO FLIGHT PLANS**

- 1. ICAO Model Flight Plan Form.**
- 2. Instructions for the Completion of the Flight Plan Form.**
- 3. Instructions for the Transmission of a Filed Flight Plan (FPL) Message.**
- 4. Instructions for the Transmission of a Supplementary Flight Plan (SPL) Message.**
- 5. Example of Completed Flight Plan Form.**
- 6. ICAO Model Flight Plan, Reverse Side.**
- 7. ICAO Model Repetitive Flight Plan (RPL) Listing Form.**
- 8. Example of a Completed Repetitive Flight Plan (RPL) Listing Form.**



## 2. Instructions for the Completion of the Flight Plan Form

### 2.1 General

Adhere closely to the prescribed formats and manner of specifying data.

Commence inserting data in the first space provided. Where excess space is available leave unused spaces blank.

Insert all clock times in 4 figures UTC.

Insert all estimated elapsed times in 4 figures (hours and minutes).

Shaded area preceding Item 3 - to be completed by ATS and COM services, unless the responsibility for originating flight plan messages has been delegated.

*Note.* - The term "aerodrome" where used in the flight plan is intended to cover also sites other than aerodromes which may be used by certain types of aircraft, e.g., helicopters or balloons.

### 2.2 Instruction for insertion of ATS data

Complete Items 7 to 18 as indicated hereunder.

Complete also Item 19 as indicated hereunder, when so required by the appropriate ATS authority or when otherwise deemed necessary.

*Note.* - Item numbers on the form are not consecutive, as they correspond to Field Type numbers in ATS messages.

#### ITEM 7: AIRCRAFT IDENTIFICATION (MAXIMUM 7 CHARACTERS)

*INSERT* one of the following aircraft identifications, not exceeding 7 characters:

- a. The registration marking of the aircraft (e.g., EIAKO, 4XBCD, N2567GA), when:
  1. In radiotelephony the call sign to be used by the aircraft will consist of this identification alone (e.g. OOTEK), or preceded by the ICAO telephony designator for the aircraft operating agency (e.g. SABENA OOTEK);
  2. The aircraft is not equipped with radio;

*OR*

- b. The ICAO designator for the aircraft operating agency followed by the flight identification number (e.g., KLM511, NGA213, JTR25) when in radiotelephony the call sign to be used by the aircraft will consist of the ICAO telephony designator for the operating agency followed by the flight identification (e.g. KLM511, NIGERIA213, HERBIE25).

*Note.* - Provisions for the use of radiotelephony call signs are contained in Annex 10, Volume II, Chapter 5. ICAO designators and telephony designators for aircraft operating agencies are contained in Doc 8585 - Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services.

#### ITEM 8: FLIGHT RULES AND TYPE OF FLIGHT (1 OR 2 CHARACTERS)

##### Flight Rules

*INSERT* one of the following letters to denote the category of flight rules with which the pilot intends to comply:

- I if IFR.
- V if VFR.
- Y if IFR first.\*
- Z if VFR first.\*

\*If indicating either Y or Z, specify in Item 15 the point or points where a change of flight rules is planned.

### **Type of Flight**

*INSERT* one of the following letters to denote the type of flight when so required by the appropriate ATS authority:

- S if scheduled air transport
- N if non-scheduled air transport operation
- G if general aviation
- M if military
- X if other than any of the defined categories above.

### **ITEM 9: NUMBER AND TYPE OF AIRCRAFT AND WAKE TURBULENCE DATA**

#### **Number of aircraft (1 or 2 characters)**

*INSERT* the number of aircraft, if more than one.

#### **Type of aircraft (2 to 4 characters)**

*INSERT* the appropriate designator as specified in ICAO Doc 8643, *Aircraft Type Designators*,

OR if no such designator has been assigned, or in case of formation flights comprising more than one type,

*INSERT* ZZZZ, and *SPECIFY* in Item 18, the (numbers and) type(s) of aircraft preceded by TYP/.

#### **Wake Turbulence category (1 character)**

*INSERT* an oblique stroke followed by one of the following letters to indicate the wake turbulence category of the aircraft:

- H - HEAVY, to indicate an aircraft type with a maximum certificated take-off mass of 136,000 kg or more;
- M - MEDIUM to indicate an aircraft type with a maximum certificated take-off mass of less than 36,000 kg but more than 7,000 kg;
- L - LIGHT, to indicate an aircraft type with a maximum certificated take-off mass of 7,000 kg or less.

### **ITEM 10: EQUIPMENT**

#### **Radio communication, navigation and approach aid equipment**

*INSERT* one letter as follows:

- N if no COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is unserviceable,

OR

- S if standard COM/NAV/ approach aid equipment for the route to be flown is carried and serviceable (*see Note 1*)

AND/OR

*INSERT* one or more of the following letters to indicate the COM/NAV/approach aid equipment available and serviceable:

A	(Not allocated)	M	Omega
B	(Not allocated)	O	VOR
C	LORAN C	P	(Not Allocated)
D	DME	Q	(Not allocated)
E	(Not allocated)	R	RNP type certification ( <i>See Note 5</i> )
F	ADF	T	TACAN
G	(GNSS)	U	UHF RTF
H	HF RTF	V	VHF RTF
I	Inertial Navigation	W	when prescribed by ATS
J	(Data Link) ( <i>See Note 3</i> )	X	when prescribed by ATS
K	MLS	Y	when prescribed by ATS
L	ILS	Z	Other equipment carried ( <i>See Note 2</i> ).

*Note 1.- Standard equipment is considered to be VHF RTF, ADF, VOR and ILS, unless another combination is prescribed by the appropriate ATS authority.*

*Note 2.- If the letter Z is used, specify in Item 18 the other equipment carried, preceded by COM/ and/or NAV/, as appropriate.*

*Note 3.- If the letter J is used, specify in Item 18 the equipment carried, preceded by DAT/ followed by one or more letters, as appropriate.*

*Note 4.- Information on navigation capability is provided to ATC for clearance and routing purposes.*

*Note 5.- Inclusion of letter R indicates that an aircraft meets the RNP type prescribed for the route segment(s) and/or route(s) concerned.*

#### **Surveillance equipment**

*INSERT* one or two of the following letters to describe the serviceable surveillance equipment carried:

SSR equipment:

N	Nil
A	Transponder - Mode A (4 digits - 4,096 codes)
C	Transponder - Mode A (4 digits - 4,096 codes) and Mode C
X	Transponder - Mode S without both aircraft identification and pressure-altitude transmission
P	Transponder - Mode S, including pressure-altitude transmission, but no aircraft identification transmission
I	Transponder - Mode S, including aircraft identification transmission, but no pressure-altitude transmission
S	Transponder - Mode S, including both pressure-altitude and aircraft identification transmission.

ADS equipment:

D	ADS capability
---	----------------

#### **ITEM: 13 DEPARTURE AERODROME AND TIME (8 CHARACTERS)**

*INSERT* the ICAO four-letter location indicator of the departure aerodrome,

OR if no location indicator has been assigned,

*INSERT* ZZZZ and *SPECIFY*, in Item 18, the name of the aerodrome preceded by DEP/,

OR if the flight plan is received from an aircraft in flight,

*INSERT* AFIL, and *SPECIFY*, in Item 18, the ICAO four-letter location indicator of the location of the ATS unit from which supplementary flight plan data can be obtained, preceded by DEP/,

*THEN, WITHOUT A SPACE*

*INSERT* for a flight plan submitted before departure on the same day, use estimated 4-digit off-block time, (HHMM)

OR for a flight plan that will be activated on a different day, use a 6-digit date-time group, the first 2 digits will be the date and the next 4 digits will be the proposed departure time, (DDHHMM)

#### ITEM 15: ROUTE

*INSERT* the first cruising speed as in (a) and the first cruising level as in (b), without a space between them.

*THEN* following the arrow, *INSERT* the route description as in (c).

##### a. Cruising speed (maximum 5 characters)

*INSERT* the True Air Speed for the first or the whole cruising portion of the flight, in terms of:

Kilometres per hour, expressed as K followed by 4 figures (e.g., K0830),

*or*

Knots, expressed as N followed by 4 figures (e.g., N0485),

*or*

Mach number, when so prescribed by the appropriate ATS authority, to the nearest hundredth of unit Mach, expressed as M followed by 3 figures (e.g., M082).

##### b. Cruising level (maximum 5 characters)

*INSERT* the planned cruising level for the first or the whole portion of the route to be flown, in terms of:

Flight level, expressed as F followed by 3 figures (e.g., F085; F330),

*or*

\*Standard Metric Level in tens of meters, expressed as S followed by 4 figures (e.g., S1130)

*or*

Altitude in hundreds of feet, expressed as A followed by 3 figures (e.g., A045; A100),

*or*

Altitude in tens of meters, expressed as M followed by 4 figures (e.g., M0840),

*or*

for uncontrolled VFR flights, the letters VFR.

\* When so prescribed by the appropriate ATS authorities.

##### c. Route (including changes of speed, level and/or flight rules)

Flights along designated ATS routes

*INSERT* if the departure aerodrome is located on, or connected to the ATS route, the designator of the first ATS route,

OR if the departure aerodrome is not on, or connected to the ATS route, the letters DCT followed by the point of joining the first ATS route, followed by the designator of the ATS route.

*THEN*

*INSERT* each point at which either a change of speed or level, a change of ATS route, and/or a change of flight rules is planned,

*Note.* - When a transition is planned between a lower and upper ATS route and the routes are oriented in the same direction, the point of transition need not be inserted.

*FOLLOWED IN EACH CASE*

- by the designator of the next ATS route segment, even if the same as the previous one,  
 OR by DCT, if the flight to the next point will be outside a designated route, unless both points are defined by geographical coordinates.

Flights outside designated ATS routes

*INSERT* points normally not more than 30 minutes flying time or 370 km (200 NM) apart, including each point at which a change of speed or level, a change of track, or a change of flight rules is planned.

OR when required by appropriate ATS authority(ies),

*DEFINE* the track of flights operating predominantly in an east-west direction between 70°N and 70°S by reference to significant points formed by the intersections of half or whole degrees of latitude with meridians spaced at intervals of 10° of longitude. For flights operating in areas outside those latitudes the tracks shall be defined by significant points formed by the intersection of parallels of latitude with meridians normally spaced at 20° of longitude. The distance between significant points shall, as far as possible, not exceed one hour's flight time. Additional significant points shall be established as deemed necessary.

For flights operating predominantly in a north-south direction, define tracks by reference to significant points formed by the intersection of whole degrees of longitude with specified parallels of latitude which are spaced at 5 degrees.

*INSERT* DCT between successive points unless both points are defined by geographical coordinates or by bearing and distance.

*USE ONLY* the conventions in (1) to (5) below and *SEPARATE* each sub-item by a space.

**1. ATS route (2 to 7 characters)**

The coded designator assigned to the route or route segment including, where appropriate, the coded designator assigned to the standard departure or arrival route (e.g., BCKI, B1, R14, UB10, KODAP2A).

**2. Significant point (2 to 11 characters)**

The coded designator (2 to 5 characters) assigned to the point (e.g., LN, MAY, HADDY),

or,

if no coded designator has been assigned, one of the following ways:

Degrees only (7 characters):

2 figures describing latitude in degrees, followed by "N" (North) or "S" (South), followed by 3 figures describing longitude in degrees, followed by "E" (East) or "W" (West). Make up the correct number of figures, where necessary, by insertion of zeros, e.g., 46N078W.

Degrees and minutes (11 characters):

4 figures describing latitude in degrees and tens and units of minutes followed by "N" (North) or "S" (South), followed by 5 figures describing longitude in degrees and tens and units of minutes, followed by "E" (East) or "W" (West). Make up the correct number of figures, where necessary, by insertion of zeros, e.g., 4620N07805W.

Bearing and distance from a navigation aid:

The identification of the navigation aid (normally a VOR), in the form of 2 or 3 characters, THEN the bearing from the aid in the form of 3 figures giving degrees magnetic, THEN the distance from the aid in the form of 3 figures expressing nautical miles. Make up the correct number of figures, where necessary, by insertion of zeros - e.g., a point 180° magnetic at a distance of 40 nautical miles from VOR "DUB" should be expressed as DUB180040.

**3. Change of speed or level (maximum 21 characters)**

The point at which a change of speed (5% TAS or 0.01 Mach or more) or a change of level is planned, expressed exactly as in (2) above, followed by an oblique stroke and both the cruising speed and the cruising level, expressed exactly as in (a) and (b) above, without a space between them, even when only one of these quantities will be changed.

*Examples:* LN/NO284AO45  
 MAY/NO305F180  
 HADDY/NO420F330  
 4602NO7805W/NO500F350  
 46NO78W/MO82F330  
 DUB180040/NO350M0840

**4. Change of flight rules (maximum 3 characters)**

The point at which the change of flight rules is planned, expressed exactly as in (2) or (3) above as appropriate, followed by a space and one of the following:

VFR if from IFR to VFR

IFR if from VFR to IFR

*Examples:* LN VFR  
 LN/NO284A050 IFR

**5. Cruise climb (maximum 28 characters)**

The letter C followed by an oblique stroke; THEN the point at which cruise climb is planned to start, expressed exactly as in (2) above, followed by an oblique stroke; THEN the speed to be maintained during cruise climb, expressed exactly as in (a) above, followed by the two levels defining the layer to be occupied during cruise climb, each level expressed exactly as in (b) above, or the level above which cruise is planned followed by the letters PLUS, without a space between them.

*Examples:* C/48N050W/M082F290F350  
 C/48N050W/M082F290PLUS  
 C/52N050W/M220F580F620

**ITEM 16: DESTINATION AERODROME AND TOTAL ESTIMATED ELAPSED TIME, ALTERNATE AERODROME(S)****Destination aerodrome and total estimated elapsed time (8 characters)**

*INSERT* the ICAO four-letter location indicator or the destination aerodrome followed, without a space, by the total estimated elapsed time,

*OR* if no location indicator has been assigned,

*INSERT* ZZZZ followed, without a space, by the total estimated elapsed time, and SPECIFY in Item 18 the name of the aerodrome, preceded by DEST/.

*Note.* - For a flight plan received from an aircraft in flight, the total estimated elapsed time is the estimated time from the first point of the route to which the flight plan applies.

**Alternate aerodrome(s) (4 characters)**

*INSERT* the ICAO four-letter location indicator(s) of not more than two alternate aerodromes, separated by a space,

- OR* if no location indicator has been assigned to the alternate aerodrome,  
*INSER* ZZZZ and SPECIFY in Item 18 the name of the aerodrome, preceded by ALTN/.

### ITEM 18: OTHER INFORMATION

- INSERT* 0 (zero) if no other information,
- OR* any other necessary information in the preferred sequence shown hereunder, in the form of the appropriate indicator followed by an oblique stroke and the information to be recorded:
- EET/ Significant points or FIR boundary designators and accumulated estimated elapsed times to such points or FIR boundaries, when so prescribed on the basis of regional air navigation agreements, or by the appropriate ATS authority.
- Examples:* EET/CAP0745 XYZ0830  
 EET/EINN0204
- RIF/ The route details to the revised destination aerodrome, followed by the ICAO four-letter location indicator of the aerodrome. The revised route is subject to re-clearance in flight.
- Examples:* RIF/DTA HEC KLAX  
 RIF/ESP G94 CLA APPH  
 RIF/LEMD
- REG/ The registration markings of the aircraft, if different from the aircraft identification in Item 7.
- SEL/ SELCAL Code, if so prescribed by the appropriate ATS authority.
- OPR/ Name of the operator, if not obvious from the aircraft identification in Item 7.
- STS/ Reason for special handling by ATS, e.g., hospital aircraft, one engine inoperative, e.g. STS/HOSP, STS/ONE ENG INOP.
- TYP/ Type(s) of aircraft, preceded if necessary by number(s) of aircraft, if ZZZZ is inserted in Item 9.
- PER/ Aircraft performance data, if so prescribed by the appropriate ATS authority.
- COM/ Significant data related to communication equipment as required by the appropriate ATS authority, e.g., COM/UHF only.
- DAT/ Significant data related to data link capability, using one or more letters, S, H, V, and M, e.g., DAT/S for satellite data link, DAT/H for HF data link, DAT/V for VHF data link, DAT/M for SSR Mode S data link.
- NAV/ Significant data related to navigation equipment as required by the appropriate ATS authority, e.g., NAV/INS.
- DEP/ Name of departure aerodrome, if ZZZZ is inserted in Item 13, or the ICAO four-letter location indicator of the location of the ATS unit from which supplementary flight plan data can be obtained, if AFIL is inserted in Item 13.
- DEST/ Name of destination aerodrome, if ZZZZ is inserted in Item 16.
- ALTN/ Name of alternate aerodrome(s), if ZZZZ is inserted in Item 16.
- RALT/ Name of en route alternate aerodrome(s).
- RMK/ Any other plain language remarks when required by the appropriate ATS authority or deemed necessary.

### ITEM 19: SUPPLEMENTARY INFORMATION

#### Endurance

- After E/ *INSERT* a 4-figure group giving the fuel endurance in hours and minutes.

**Persons on board**

After P/ *INSERT* the total number of persons (passengers and crew) on board, when required by the appropriate ATS authority. *INSERT TBN* (to be notified) if the total number of persons is not known at the time of filing.

**Emergency and survival equipment**

R/ (Radio) *CROSS OUT* U if UHF on frequency 243.0 MHz is not available. *CROSS OUT* V if VHF on frequency 121.5 MHz is not available. *CROSS OUT* E if emergency location beacon – aircraft (ELBA) is not available.

## S/ (SURVIVAL EQUIPMENT)

*CROSS OUT* all indicators if survival equipment is not carried. *CROSS OUT* P if polar survival equipment is not carried.

*CROSS OUT* D if desert survival equipment is not carried. *CROSS OUT* M if maritime survival equipment is not carried. *CROSS OUT* J if jungle survival equipment is not carried.

J/ (JACKETS) *CROSS OUT* all indicators if life jackets are not carried. *CROSS OUT* L if life jackets are not equipped with lights. *CROSS OUT* F if life jackets are not equipped with florescent. *CROSS OUT* U or V or both as in R/ above to indicate radio capability of jackets, if any.

## D/ (DINGHIES)

(NUMBER) *CROSS OUT* indicators D and C if no dinghies are carried, or *INSERT* number of dinghies carried; and

(CAPACITY) *INSERT* total capacity, in persons, of all dinghies carried; and

(COVER) *CROSS OUT* indicator C if dinghies are not covered; and

(COLOR) *INSERT* color of dinghies if carried.

## A/ (AIRCRAFT COLOR AND MARKINGS)

*INSERT* color of aircraft and significant markings.

N/ (REMARKS) *CROSS OUT* indicator N if no remarks, or *INDICATE* any other survival equipment carried and any other remarks regarding survival equipment.

C/ (PILOT) *INSERT* name of pilot-in-command.

**2.3 Filed by**

*INSERT* the name of the unit, agency or person filing the flight plan.

**2.4 Acceptance of the flight plan**

Indicate acceptance of the flight plan in the manner prescribed by the appropriate ATS authority.

**2.5 Instructions for insertion of COM data**Items to be completed

*COMPLETE* the top two shaded lines of the form, and *COMPLETE* the third shaded line only when necessary, in accordance with the provisions in PANS-RAC, Part IX, 2.1.2, unless ATS prescribes otherwise.

### 3. Instructions for the Transmission of a Filed Flight Plan (FPL) Message

#### 3.1 Correction of obvious errors

Unless otherwise prescribed, CORRECT obvious format errors and/or omissions (i.e. oblique strokes) to ensure adherence as specified in Section 2.

#### 3.2 Items to be transmitted

*TRANSMIT* items as indicated hereunder, unless otherwise prescribed:

- a. the items in the shaded lines, above Item 3;
- b. commencing with <<≡ (FPL of Item 3:  
all symbols and data in the unshaded boxes to the ) <<≡ at the end of Item 18,  
additional alignment functions as necessary to prevent the inclusion of more than 69 characters  
in any line of Items 15 and 18. The alignment function is to be inserted only in lieu of a space so as  
not to break up a group of data, letter shifts and figure shifts (not preprinted on the form) as necessary;
- c. the AFTN Ending, as described below:

#### 3.3 End-of-Text Signal

- a. one LETTER SHIFT
- b. two CARRIAGE RETURNS, one LINE FEED

Page-feed Sequence

Seven LINE FEEDS

End-of-Message Signal

Four of the letter N.

## 4. Instructions for the Transmission of a Supplementary Flight Plan (SPL) Message

### 4.1 Items to be transmitted

Transmit items as indicated hereunder, unless otherwise prescribed:

- a. AFTN Priority Indicator, Addressee Indicators <<≡, Filing Time, Originator Indicator <<≡ and, if necessary, specific identification of addressees and/or originator;
- b. commencing with <<≡ (SPL of Item 3:  
all symbols and data in the unshaded areas of boxes down to the ) <<≡ at the end of Item 18, additional alignment functions as necessary to prevent the inclusion of more than 69 characters in any line of Items 15 or 18. The alignment function is to be inserted only in lieu of a space, so as not to break up a group of data, letter shifts and figure shifts (not preprinted on the form) as necessary;
- c. the AFTN Ending, as described below:

### 4.2 END-of-Text Signal

- a. one LETTER SHIFT
- b. two CARRIAGE RETURNS, one LINE FEED

Page-feed Sequence

Seven LINE FEEDS

End-of-Message Signal

Four of the letter N.

## 5. Example of Completed Flight Plan Form

Federal Aviation Administration		International Flight Plan	
<b>PRIORITY</b> << ≡ <b>FF</b> →		<b>ADDRESSEE(S)</b> EHA AZ QEX EBUR Z QZX EDDY Z QZX LFFF Z QZX LFRR Z QZX LFBB Z QZX LECM Z QZX LPPC Z QZX	
<b>FILING TIME</b> 1 9 0 8 3 6 →		<b>ORIGINATOR</b> E H A M Z P Z X << ≡	
SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND/OR ORIGINATOR			
<b>3 MESSAGE</b> << ≡ (FPL		<b>7. AIRCRAFT IDENTIFICATION</b> - A C F 4 0 2	
<b>8 FLIGHT RULES</b> - I		<b>TYPE OF FLIGHT</b> N << ≡	
<b>9. NUMBER</b> -		<b>TYPE OF AIRCRAFT</b> E A 3 0	
<b>13 DEPARTURE AERODROME</b> - E H A M		<b>TIME</b> 0 9 4 0 << ≡	
<b>15 CRUISING SPEED</b> - 0 8 3 0		<b>ROUTE</b> F 2 9 0 → LEK 2B LEK UA6 XMM/MO78F330	
UA6 PON URION CHW UA5 NTS DCT 4611N00412W DCT STG UA5 FTM FATIMIA			
16. DESTINATION AERODROME: L P P T			
TOTAL EET HR. MIN. 0 2 3 0		ALTN AERODROME: L P P R	
18 OTHER INFORMATION: REG / FBVGA SEL / EJFL EET / LPPC0158			
>>> ≡			
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES)			
<b>19 RENSE</b> ENDURANCE HR. MIN. E / 0 3 4 5		PERSONS ON BOARD → P / 3 0 0	
SURVIVAL EQUIPMENT → S / P		EMERGENCY RADIO UHF VHF ELBA → R / U V E	
DINGHIES → D / 1 1 → 3 3 0 → C → YELLOW		LIGHT FLOURES UHF VHF → J / L F U V	
AIRCRAFT COLOUR AND MARKINGS: A / WHITE			
REMARKS → N /			
PILOT-IN-COMMAND: C / DENKE >>> ≡			
FILED BY: AIR CHARTER INT.		ACCEPTED BY:	
ADDITIONAL INFORMATION:			

FAA Form 7233-4 (5-93) Supersedes Previous Edition

## 6. ICAO Model Flight Plan, Reverse Side

PPC				
AI			TB	
EATHE A	<input type="checkbox"/> P		CA	
	<input type="checkbox"/>		Report immediately weather conditions encountered - particularly cloud tops, upper cloud layers, thunderstorms, ice, turbulence, winds and temperature.	
			PAT	C
EATHE L	<input type="checkbox"/> P			
	<input type="checkbox"/>			
	<input type="checkbox"/> PIEPS			
INS ALOT	<input type="checkbox"/> BCA			
NAAI COMSTATUS	<input type="checkbox"/>			
	<input type="checkbox"/> E			
AIPOT CONITIONS	<input type="checkbox"/>			
	<input type="checkbox"/> A			
AI	<input type="checkbox"/> A			
CAP				
APUS CICAISAA _____				
SAA				
Check data as soon as practicable after entering foreign airspace, as our international data may be inaccurate or incomplete.				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <p>AOEB</p> <p>IP</p> <p>T</p> <p>OMBAA</p> <p>OMB PP C</p> <p>PONOTETUN</p> </div> <div style="text-align: right;"> <p>UST AA TS OPATO IAS C</p> </div> </div>				



Clearly identify additions and deletions in accordance with Item H at 7.4. Subsequent listings shall list the corrected and added data, and deleted flight plans shall be omitted.

Number pages by indicating number of pages and total number of pages in submission.

Utilize more than one line for any RPL where the space provided for items O and Q on one line is not sufficient.

**7.3** A flight shall be cancelled as follows:

- a. indicate a minus sign in item H followed by all other items of the cancelled flight;
- b. insert a subsequent entry denoted by a plus sign in item H and the date of the last flight in item J, with all other items of the cancelled flight unchanged.

**7.4** Modification to a flight shall be made as follows:

- a. carry out the cancellation as indicated in 7.2; and
- b. insert a third entry giving the new flight plan(s) with the appropriate items modified as necessary, including the new validity dates in items I and J.

*Note.* - All entries related to the same flight will be inserted in succession in the order specified above.

**7.5** Instructions for insertion of RPL data

Complete Items A to Q as indicated hereunder.

**ITEM A: OPERATOR**

*INSERT* Name of operator.

**ITEM B: ADDRESSEE(S)**

*INSERT* Name of agency(ies) designated by States to administer RPL's for FIR's or areas of responsibility concerned with the route of flight.

**ITEM C: DEPARTURE AERODROME(S)**

*INSERT* Location indicator(s) of departure aerodrome(s).

**ITEM D: DATE**

*INSERT* On each page of submission the date (year, month, day) in a 6-figure group that the listing was submitted.

**ITEM E: SERIAL NUMBER**

*INSERT* Serial number of submission (2 numerics) indicating last two digits of year, a dash, and the sequential number of the submission for the year indicated (start with numeral 1 each new year).

**ITEM F: PAGE OF**

*INSERT* Page number and total number of pages submitted.

**ITEM G: SUPPLEMENTARY DATA AT**

*INSERT* Name of contact where information normally provided under Item 19 of the FPL is kept readily available and can be supplied without delay.

**ITEM H: ENTRY TYPE**

*INSERT* A minus sign (-) for each flight plan that is to be deleted from the listing.

*INSERT* A plus sign (+) for each initial listing and, in the case of subsequent submissions, for each flight plan not listed in the previous submission.

*Note* - No information is required under this item for any flight plan which is unchanged from the previous submission.

**ITEM I: VALID FROM**

*INSERT* First date (year, month, day) upon which the flight is scheduled to operate.

**ITEM J: VALID UNTIL**

*INSERT* Last date (year, month, day) upon which the flight is scheduled to operate as listed, or UFN if the duration is unknown

**ITEM K: DAYS OF OPERATION**

*INSERT* Number corresponding to the day of the week in the appropriate column;  
Monday = 1 through Sunday = 7.

*INSERT* 0 for each day of non-operation in the appropriate column.

**ITEM L: AIRCRAFT IDENTIFICATION (Item 7 of the ICAO flight plan)**

*INSERT* Aircraft identification to be used for the flight.

**ITEM M: TYPE OF AIRCRAFT AND WAKE TURBULENCE CATEGORY (Item 9 of the ICAO flight plan)**

*INSERT* Appropriate ICAO designator as specified in ICAO Doc 8643 - Aircraft Type Designators.

*INSERT* H, M or L indicator as appropriate:

H - HEAVY to indicate an aircraft type with a maximum certificated take-off mass of 136,000 kg or more,

M - MEDIUM to indicate an aircraft type with a maximum certificated take-off mass of less than 136,000 kg but more than 7,000 kg,

L - LIGHT to indicate an aircraft type with a maximum certificated take-off mass of 7,000 kg or less.

**ITEM N: DEPARTURE AERODROME AND TIME (Item 13 of the ICAO flight plan)**

*INSERT* Location indicator of the departure aerodrome.

*INSERT* The off-block time, i.e., the estimated time that the aircraft will commence movement associated with departure.

**ITEM O: ROUTE (Item 15 of the ICAO flight plan)****a. Cruising Speed**

*INSERT* The true airspeed for the first or whole cruising portion of the flight in accordance with Item 15(a) of the ICAO flight plan.

**b. Cruising level**

*INSERT* The planned cruising level for the first or whole portion of the route in accordance with Item 15(b) of the ICAO flight plan.

**c. Route**

*INSERT* The entire route in accordance with Item 15(c) of the ICAO flight plan.

**ITEM P: DESTINATION AERODROME AND TOTAL ESTIMATED ELAPSED TIME (Item 16 of the ICAO flight plan)**

*INSERT* Location indicator of the destination aerodrome.

*INSERT* The total estimated elapsed time.

**ITEM Q: REMARKS**

*INSERT* Items of information as required by the appropriate ATS authority, items normally notified in Item 18 of the ICAO flight plan and any other information pertinent to the flight of concern to ATS.



## Appendix B. Q SIGNALS

### Q SIGNALS

SIGNIFICATION		
<u>SIGNAL</u>		<u>ANSWER</u>
	Question of Interrogatory Form (Signal followed by letter Q)	Information or Advise Form (Signal only, except as noted)
QAL	Has aircraft... landed at your location (or at...)?	Aircraft... landed here at.... hours (or landed... at... hours).
QRU	Have you anything for me [or for... (location or person)]?	I have nothing for you [or for... (location or person)]
QSL	Can you acknowledge receipt of transmission number... (or type message)?	I acknowledge receipt of transmission number... (or type of message).
QSM	Shall I repeat the last message (transmission or portion indicated sent to me or transmission(s) from...)?	Repeat the last message (transmission or portion indicated) sent to me (or transmission(s) from...). A--not received. B--partially received (garbled).
QTA	Shall I cancel message number... (or other identification)?	Cancel message number... (or other identification).



## Index

[References are to page numbers]

### A

Airport Lighting, 11-1-1  
 ALS Intensity Setting, 11-1-1  
 HIRL, 11-1-3  
 MIRL, 11-1-3  
 REDL, 11-1-1  
 REIL, 11-1-3  
 RVV/RVR, 11-1-4  
 SFL, 11-1-1  
 VASI, 11-1-3

### B

Bomb Threats, 5-2-3  
 Broadcast Procedures  
 HIWAS, 2-4-1, 2-4-2  
 Speech Rate, 2-1-1  
 TIBS for AFSS, 2-3-1  
 TWEB, 2-2-1, 2-2-2  
 Types, 2-1-1

### C

Changes, Recommendation for Procedural, 1-1-1,  
 1-1-2  
 Communication System, Interphone, 12-1-1  
 Communication System, DATA, 10-1-1  
 Control Symbology, 4-2-6

### D

Duty  
 Familiarization and Transfer of Position Responsibility, 1-3-1  
 Priority, 1-3-1

### E

Effective Date of this Order, 1-1-1  
 Emergency Services  
 ADF/VOR, 5-4-1, 5-4-2, 5-4-4  
 DF, 5-3-1, 5-3-2

General, 5-1-1, 5-1-2  
 Operations, 5-2-1  
 ELT, 5-2-2, 5-2-3

### F

Flight Data  
 Flight Plan Handling, 6-4-1, 6-4-3, 6-4-4  
 Change in ETA, 6-4-5  
 Military Flights to/from U.S., 6-4-6  
 Flight Plan Proposals, 6-2-1, 6-2-3  
 Flight Plans with Area Navigation (RNAV)  
 Routes in Domestic U.S. Airspace, 6-2-4  
 General, 6-1-1  
 IFR Flight Plan Handling, 6-3-1, 6-3-2, 6-3-8  
 IFR/DVFR ADIZ Flight Plans, 6-6-1  
 Law Enforcement Messages, 6-7-1  
 Military Operations, 6-5-1, 6-5-2  
 Nonemergency Parachute Jumping, 6-8-1

### I

Inflight Services, 4-1-1  
 Automatic Flight Information Service, 4-4-5  
 Data Recording, 4-2-1  
 Aircraft Contacts, 4-2-5  
 Flight Progress, 4-2-3  
 EFAS, 4-6-1, 4-6-2, 4-6-3  
 LAA, 4-4-1, 4-4-4  
 Radio Communications, 4-3-1, 4-3-4  
 Blind Transmission, 4-3-5  
 Routine Radio Contacts, 4-3-2  
 Special VFR, 4-5-1, 4-5-2  
 International Operations, 7-1-1  
 AIREPS, 7-1-6  
 Alerting Service, 7-3-1  
 ARTCC Relay of VFR Messages, 7-1-9  
 Customs Notification and ADIZ, 7-2-1  
 Flight Plan Cancellations, 7-1-5  
 Messages and Formats, 7-1-1  
 Flight Plan, 7-1-4  
 ICAO, 7-1-5  
 Service Messages, 7-1-2  
 Movement and Control  
 Canadian, 7-4-1  
 Mexican, 7-5-1

**[References are to page numbers]****N**

NAVAID Monitoring, Check, 4-1-2

**P**

Phraseology, 13-1-1, 13-1-12, 13-1-14, 13-1-18,  
13-1-19  
Weather, 13-1-2

Pilot Briefing, 3-1-1, 3-1-3  
Preflight, 3-2-1, 3-2-2, 3-2-3

**S**

Search and Rescue  
ALNOTs, 8-4-1  
General, 8-1-1  
INREQs, 8-3-1  
Other SARs, 8-5-1

Overdue Aircraft, 8-2-1

**T**

Terms of Reference, 1-2-1, 6-9-1  
Abbreviations, 1-2-1

**W**

Weather Service, FAAs  
CWA, 9-11-1  
FAs, 9-6-1  
FDs, 9-4-1  
Flight Advisories: WS, WA, WST, 9-8-1  
FTs, 9-5-1  
MIS, 9-10-1  
SD/ROB, 9-3-1  
Severe Weather Forecasts, 9-7-1  
TWEB, 9-9-1  
UA/UUA, 9-1-1, 9-2-1

# BRIEFING GUIDE



**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

---

**Initiated By: AJR-0  
Vice President, System Operations Services**

## Table of Contents

<b>Paragraph Number</b>	<b>Title</b>	<b>Page</b>
6-9-1	SECURITY NOTICE (SECNOT)	3
6-9-2	ACTION UPON RECEIPT OF SECURITY NOTICE	3
6-9-3	CANCELLATION OF SECURITY NOTICE	4

---

**1. PARAGRAPH NUMBER AND TITLE:** 6-9-1. SECURITY NOTICE (SECNOT), 6-9-2. ACTION UPON RECEIPT OF A SECNOT, 6-1-3. CANCELLATION OF SECNOT

**2. BACKGROUND:** The FAA has found it necessary to increase security measures within the National Airspace System (NAS). The Domestic Air Defense Identification Zone (ADIZ) is one of the recent security related changes. Aircraft that enter a Domestic ADIZ without proper approval may be intercepted by DOD aircraft and pilots of the non-compliant aircraft are subject to regulatory and or legal action. Recent events have highlighted the fact that the FAA has no adequate way to search for aircraft that have violated national security procedures. The Security Notice process provides a vehicle that will enable the FAA to locate aircraft that violate national security measures. Although these procedures are necessary to ensure the security of the NAS, we do not anticipate a significant increase in controller workload. These procedures will not have any impact on the safety of the NAS.

**3. CHANGE:**

<u>OLD</u>	<u>NEW</u>
<b>Chapter 6. Flight Data</b>	<b>Chapter 6. Flight Data</b>
Add	<b><u>Section 9. Security Notice (SECNOT)</u></b>
Add	<b><u>6-9-1. SECURITY NOTICE (SECNOT)</u></b>
Add	<b><u>A Security Notice (SECNOT) is a request originated by the Air Traffic Security Coordinator (ATSC) of the Domestic Events Network (DEN) for an extensive communications search for aircraft involved, or suspected of being involved, in a security violation. A SECNOT will include the aircraft identification, search area, and expiration time. The search area, as defined by the ATSC, could be a single airport, multiple airports, a radius of an airport or fix, or a route of flight. Once the expiration time has been reached, the SECNOT is considered to be cancelled.</u></b>
Add	<b><u>NOTE-</u></b> <b><u>1. The DEN will notify the FSS of the SECNOT by telephone.</u></b>
Add	<b><u>2. The ATSC may expand the search area or expiration time following the initial notification of the Security Notice.</u></b>
Add	<b><u>6-9-2. ACTION UPON RECEIPT OF A SECNOT</u></b>
	<b><u>a. As soon as a SECNOT is received, the facility shall attempt to locate the aircraft by checking all airports in the search area that could accommodate the aircraft. Also, relay the SECNOT to all Terminal facilities in the search area.</u></b>
Add	<b><u>NOTE-</u></b> <b><u>1. Terminal facilities will reply directly to the DEN.</u></b> <b><u>2. The DEN is responsible for coordination with ARTCCs.</u></b>
Add	<b><u>b. When contacting airports or offices outside of official government agencies, provide no further information other than that which is contained in the SECNOT.</u></b>

- Add 

**c. Upon receipt of information pertaining to the SECNOT, immediately notify the DEN.**
  - Add 

**d. If the aircraft is located, notify the DEN immediately and cancel the SECNOT.**
  - Add 

**e. The priority of duty for the handling of a SECNOT is that of emergency situations, as described in Paragraph 1-3-2, Duty Priority.**
  - Add 

**f. Record the initiation of a SECNOT on FAA Form 7230-4, Daily Record of Facility Operation, or the electronic equivalent. Include the aircraft identification, search area, and expiration time in the log entry.**
  - Add 

**6-9-3. CANCELLATION OF SECNOT**
  - Add 

**The SECNOT remains current until the aircraft is located, the search is cancelled by the ATSC, or the expiration time is reached.**
  - Add 

**a. Workload permitting, notify all previously alerted air traffic facilities if the SECNOT is cancelled before the expiration time is reached.**
  - Add 

**b. Record the cancellation on FAA Form 7230-4, Daily Record of Facility Operation, or the electronic equivalent.**
-