CHANGE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Air Traffic Organization Policy

JO 7110.10Z
CHG 3

Effective Date:
February 28, 2019

SUBJ: Flight Services

1. Purpose of This Change. This change transmits revised pages to Federal Aviation Administration Order JO 7110.10Z, 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 and 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 Retain this transmittal until superseded by a new basic order.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.

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Date: February 6, 2019

Flight Services
Explanation of Changes
Change 3

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

a. 2–1–1. TYPES OF BROADCASTS
2–1–3. REDUCING RECORDED WEATHER INFORMATION SERVICES
2–3–1. GENERAL

This change documents that Telephone Information Briefing Services (TIBS) will only be provided by Alaska Flight Service Stations. This change cancels and incorporates N JO 7110.760, effective September 13, 2018.

b. 3–2–1. CONDUCT OF STANDARD BRIEFING

This change advises NAS users of updates to FAA publications, reflecting a more accurate means of obtaining IFR route and procedures FDC NOTAM information.

c. 4–3–7. ATC CLEARANCES, ADVISORIES, OR REQUESTS

This change provides instruction to the Flight Data Communications Specialists at the ARTCCs on how to properly obtain and relay clearance requests.

d. 7–1–1. GENERAL
7–2–1. FLIGHT PLAN/CUSTOMS REQUIREMENTS
7–2–2. INBOUND AIRCRAFT: CUSTOMS REQUIREMENTS
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7–5–1. GENERAL
7–5–2. INBOUNDS FROM MEXICO
7–5–3. OUTBOUNDS TO MEXICO

As a result of the changes cited above in the U.S. customs notifications procedures, Chapter 7 was modified to remove all references to ADCUS in remarks, provide guidance and a link to the CBP website on the APIS requirements for pilots to coordinate directly with CBP, and to update the sections on Canadian and Mexican trans–border flights.

e. 8–2–1. COMMUNICATIONS SEARCH
8–2–2. QALQ
8–3–1. INREQ
8–4–1. ALNOT

This change removes all references to Direct Users Access Terminal System (DUATS) II contract, including references to vendors CSRA and Lockheed Martin. This system has been terminated and is no longer available to the flying community.

f. 9–2–3. RESPONSIBILITY
9–2–5. SOLICITING PIREPS
9–2–14. PIREP FORMATTING

This change incorporates the ATO's Top 5 PIREP CAP recommendations, and FAA Order JO 7110.10 contains consistent guidance regarding the solicitation and dissemination of PIREPs. Specifically, it includes requirements for the solicitation of more detailed information regarding cloud ceilings and braking action reports.

g. 9–5–2. AVIATION SURFACE FORECAST/ AVIATION CLOUD FORECAST/ AREA FORECAST (FA) SCHEDULE
9–5–3. AVIATION SURFACE FORECAST AND AVIATION CLOUD FORECAST ISSUANCE TIMES

This change removes incorrect headers from Section 9–5–2 and TBL 9–5–2 and also removes the incorrect distribution information in Section 9–5–3. This change cancels and incorporates N JO 7110.759, effective September 5, 2018.

h. APPENDIX A. INSTRUCTIONS FOR THE COMPLETION OF THE FLIGHT PLAN FORM

This change removes the "Reserved for RCP" description for the P–Code and includes the P–Code equipment definitions. Additionally, this change adds guidance for the filing of Required Surveillance Performance (RSP) information in Item 18 of the flight plan. This is in conjunction with changes to the United States (U.S.), Aeronautical Information Manual Table 5–1–4 and the U.S. Aeronautical Information Publication ENR 1.10 12.5.

i. EDITORIALS

Editorial changes include an update to DEN information in paragraph 5–2–13 as well as a reference correction in paragraph 4–1–1.

j. Entire Publication

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

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Chapter 2. Broadcast Procedures

Section 1. General

2–1–1. TYPES OF BROADCASTS

Weather and flight information must be broadcast/recorded by one or more of the following categories:

a. Transcribed Weather Broadcast (TWEB). (Alaska only.)

b. Telephone Information Briefing Service (TIBS). (Alaska only.)

c. Hazardous Inflight Weather Advisory Service (HIWAS).

d. Automatic Flight Information Service (AFIS). (Alaska only.)

2–1–2. SPEECH RATE AND PHRASEOLOGY

a. Data must be spoken such that:

1. The speech rate is not excessive,

2. The enunciation is of the highest quality, and;

3. Each part of the message is easily understood.

b. Standardized procedures and phraseology to be used by FSS personnel and automated equipment are to be conducted in accordance with Chapter 12 Phraseology.

2–1–3. REDUCING RECORDED WEATHER INFORMATION SERVICES

Recorded weather information services in Alaska (TWEB and TIBS) may be reduced during the hours of 1800–0600 local time only. Adjust full broadcast service times to coincide with daylight hours. When a broadcast period is reduced, record the time the broadcast will be resumed, and advise users to contact flight service for weather briefings and other services.

PHRASEOLOGY–

THE TIBS RECORDING IS SUSPENDED. REGULAR RECORDED WEATHER SERVICE WILL BE RESUMED AT (time) ZULU/ (time) LOCAL. FOR PILOT WEATHER BRIEFINGS AND OTHER SERVICES, CONTACT FLIGHT SERVICE (phone number or additional telephone instructions, as appropriate).

THE TWEB RECORDING IS SUSPENDED. REGULAR RECORDED WEATHER SERVICE WILL BE RESUMED AT (time) ZULU/ (time) LOCAL. FOR PILOT WEATHER BRIEFING AND OTHER SERVICES CONTACT FLIGHT SERVICE (frequency or phone number, as appropriate)

2–1–4. CURRENT DATA

An aviation surface report is considered current for 1 hour beyond the standard time of observation (H+00) unless superseded by a special or local observation or by the next hourly report. Do not broadcast obsolete data.

2–1–5. AUTOMATED BROADCAST

Most broadcasts are automated products that are available 24 hours a day. The products must adhere to the requirements of this chapter. Specialists are responsible for monitoring the product for accuracy, speech rate, and proper enunciation before it is transmitted.

Section 3. Telephone Information Briefing Service (TIBS)

2–3–1. GENERAL

a. TIBS provides a continuous telephone recording of meteorological and/or aeronautical information.

1. TIBS must contain:

(a) Area and/or route briefings.

(b) Airspace procedures, if applicable.

(c) Special announcements, if applicable.

2. TIBS should also contain, but not be limited to:

(a) Surface observations (METAR).

(b) Terminal forecasts (TAF).

(c) Winds/temperatures aloft forecasts.

NOTE–
User needs should dictate the content of these recordings.

b. Each FSS sector/flight plan area must provide at least four route and/or area weather briefings. As a minimum, area briefings should encompass a 50 NM radius. Each briefing should require the pilot to access no more than two channels which must be route and/or area specific.

c. Separate channels must be designated for each route area, local meteorological/aeronautical information, special event, airspace procedures, etc.

EXAMPLE–
11 Special Announcements
12 Route FAI to GAL
13 Route FAI to AKP
14 Route FAI to FYU
17 Current Weather – FAI–ANC
18 Current Weather –Interior AK.

2–3–2. AREA/ROUTE BRIEFING PROCEDURES

Service is provided 24 hours a day, but may be reduced in accordance with Paragraph 2–1–3. Recorded information must be updated as conditions change.

a. Introduction. State the preparation time and the route and/or the area of coverage. The service area may be configured to meet the individual facility's needs; for example, 50 NM radius, route oriented.

NOTE–
For the purpose of TIBS broadcasts, an area briefing may be a geographic location not defined by a nautical mile radius, for example, NORTHWEST NEBRASKA.

PHRASEOLOGY–
THIS RECORDING PREPARED AT (time) LOCAL or (time) ZULU. BRIEFING SUMMARY FOR: A (number of miles) NAUTICAL MILE RADIUS OF (location),

or (location not defined by nautical mile radius),

or THE ROUTE FROM (location) TO (location).

b. Weather Advisories. Include WST, WS, WA, CWA, AWW, urgent PIREP (UUA), and any other available meteorological information that may adversely affect flight in the route/area.

PHRASEOLOGY–
WEATHER ADVISORIES ARE IN EFFECT FOR (adverse conditions) OVER (geographic area) (text).

c. VFR Not Recommended (VNR) Statement. Include this recommendation when current or forecast conditions, surface or aloft, would make flight under visual flight rules doubtful.

PHRASEOLOGY–
V–F–R FLIGHT NOT RECOMMENDED (location) DUE TO (conditions).

d. Synopsis. A brief statement describing the type, location, and movement of weather systems and/or masses which might affect the route or the area. 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.

e. Current Conditions. Include current weather conditions over the route/area and PIREPs on conditions reported aloft.

NOTE–
When communicating weather information on the TIBS broadcast or telephone, specialists may announce cloud heights in either group form or in hundreds or thousands of feet, such as, "seventeen-thousand" or "one-seven-thousand."

f. Density Altitude. Include the statement "Check Density Altitude" as part of the surface weather

broadcast for any weather reporting point with a field elevation of 2,000 feet MSL or above that reaches the criteria found in TBL 2–2–1.

g. En Route Forecast. Include forecast information from appropriate data; for example, area forecast (FA) synopsis for Hawaii and Alaska only, terminal aerodrome forecast (TAFs), and weather advisories.

h. Winds Aloft. Include winds aloft as forecast for the route/area as interpolated from forecast data for the local and/or the adjacent reporting locations for levels through 12,000 feet. The broadcast should include the levels from 3,000 to 12,000 feet, but must always include at least two forecast levels above the surface.

i. Request for PIREPs. When weather conditions within the area or along the route meet requirements for soliciting PIREPs (Paragraph 9–2–5), include a request in the recording.

PHRASEOLOGY–
PILOT WEATHER REPORTS ARE REQUESTED. CONTACT FLIGHT SERVICE.

j. Closing Announcement. The closing announcement must provide instructions for contacting a pilot briefer for NOTAMs, military training activity, or other information.

2–3–3. MONITORING

a. Manually prepared recordings must be monitored immediately after recording to insure accuracy of data and availability by calling 1–800–WX–BRIEF.

b. Automated TIBS products and non-meteorological recordings must be monitored once each shift to ensure clarity and accuracy.

Section 5. Automatic Flight Information Service (AFIS) (Alaska Only)

2–5–1. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS)

Use the AFIS to provide advance non-control airport, meteorological, and pertinent NOTAM information to aircraft. Specialists must provide local airport advisory (LAA) information when the AFIS is not available.

NOTE–
Use of the AFIS by pilots is not mandatory, but pilots who use two-way radio communication with the FSS are urged to use the service.

a. Begin each new AFIS message with the airport/facility name and a phonetic alphabet letter. The phonetic alphabet letter must also be spoken at the end of the message and be used sequentially, beginning with "Alpha," ending with "Zulu." Full-time facilities must repeat the letter without regard to the beginning of a new day. Part–time facilities must identify the first resumed broadcast message with "Alpha."

b. The AFIS recording must be reviewed for completeness, accuracy, speech rate, and proper enunciation before being transmitted.

c. Maintain an AFIS message that reflects the most current local airport information.

1. Make a new AFIS recording when any of the following occur:

(a) Upon receipt of any new official weather, regardless of any change in values.

(b) When runway braking action reports are received that indicate runway braking is worse than that which was included in the current AFIS broadcast.

(c) When there is a change in any other pertinent data for the airport or surrounding area, such as change in favored runway, new or canceled NOTAMs, WAs, WSs, CWAs, PIREPs, or other information that facilitates the repetitive transmission of essential but routine information.

2. Omit rapidly changing data. When this occurs, the AFIS must contain a statement advising pilots whom to contact for the omitted data.

EXAMPLE–
"For latest ceiling/visibility/altimeter/wind/(other conditions) contact (facility and frequency)."

3. Broadcast, on the LAA frequency, the new airport AFIS phonetic alphabet identifier after each new recording.

4. After establishing two-way radio communication, if the pilot does not state that he/she has the current AFIS code, the specialist must either:

(a) Use LAA procedures to issue pertinent AFIS information, or

(b) Advise the pilot to return to the AFIS frequency.

5. AFIS broadcasts may be suspended within specified time periods. During these periods, the AFIS must contain a brief statement that the AFIS is suspended for the specified time and pilots should contact the FSS for LAA.

PHRASEOLOGY–
(Airport name) FLIGHT INFORMATION BROADCASTS ARE SUSPENDED UNTIL (time). CONTACT (facility name) RADIO ON (frequency) FOR AIRPORT INFORMATION.

6. Part-time and seasonal facilities must record a message with the appropriate frequency and facility contact information as well as known information regarding resumption of LAA.

PHRASEOLOGY–
(Name of FSS) HOURS OF OPERATION ARE (time) LOCAL TIME TO (time) LOCAL TIME. THE COMMON TRAFFIC ADVISORY FREQUENCY IS (frequency). PILOT CONTROLLED LIGHTING IS AVAILABLE ON (frequency). FOR ADDITIONAL INFORMATION CONTACT (name of FSS) ON (frequency).

(Name of FSS) IS CLOSED FOR THE WINTER SEASON. THE COMMON TRAFFIC ADVISORY FREQUENCY IS (frequency). PILOT CONTROLLED LIGHTING IS AVAILABLE ON (frequency). FOR ADDITIONAL INFORMATION CONTACT (name of FSS) ON (frequency).

7. Use the following format and include the following in AFIS broadcast as appropriate:

(a) (Airport/facility name) airport information.

(b) Phonetic alphabet designator.

(c) Special routing procedures in effect (when appropriate for the Ketchikan (KTN) area).

(d) Time of the AFIS preparation (UTC) followed by the word, "ZULU."

(e) Include the current weather observation and other pertinent remarks. The ceiling/sky conditions, visibility, and obstruction to vision maybe omitted if the ceiling is above 5,000 and the visibility is more than 5 miles.

EXAMPLE–
"The weather is better than five thousand and five."

(f) Favored runway and additional local information, as required.

(g) NOTAMs concerning local NAVAIDs and field conditions pertinent to flight.

EXAMPLE–
"Notice to Airmen, Iliamna NDB out of service."
"Transcribed weather broadcast out of service."

(h) Runway braking action or runway condition codes (RwyCC) when provided. Include the time of the report.

PHRASEOLOGY–
RUNWAY (number) condition code (first value, second value, third value) AT (time).

EXAMPLE–
Runway Three–Six condition code two, two, one at one zero one eight Zulu."

REFERENCE–
FAA Order JO 7110.10, Para 4–4–3, Airport Advisory/RAIS Elements and Phraseology.

(i) Low-level wind shear (LLWS) advisory, including those contained in the terminal aerodrome forecast (TAF)and in PIREPs. (Include PIREP information at least 20 minutes following the report).

EXAMPLE–
"Low level wind shear is forecast."

(j) Unauthorized Laser Illumination Events. When a laser event is reported, include reported unauthorized laser illumination events on the AFIS broadcast for one hour following the last report. Include the time, location, altitude, color, and direction of the laser as reported by the pilot.

PHRASEOLOGY–
UNAUTHORIZED LASER ILLUMINATION EVENT, (UTC time), (location), (altitude), (color), (direction).

EXAMPLE–
"Unauthorized laser illumination event at zero one zero zero Zulu, eight-mile final runway one eight at three thousand feet, green laser from the southwest."

(k) Man-Portable Air Defense Systems (MANPADS) alert and advisory. Specify the nature and location of threat or incident, whether reported or observed and by whom, time (if known), and notification to pilots to advise ATC if they need to divert.

PHRASEOLOGY–
MANPADS ALERT. EXERCISE EXTREME CAUTION. MANPADS THREAT/ATTACK/POST-EVENT ACTIVITY OBSERVED/REPORTED BY (reporting agency) (location) AT (time, if known). (When transmitting to an individual aircraft) ADVISE ON INITIAL CONTACT IF YOU WANT TO DIVERT.

EXAMPLE–
"MANPADS alert. Exercise extreme caution. MANPADS threat reported by TSA, Anchorage area. Advise on initial contact if you want to divert."

"MANPADS alert. Exercise extreme caution. MANPADS attack observed by flight service station one-half mile northwest of airfield at one-two-five-zero Zulu. Advise on initial contact if you want to divert."

NOTE–
1. *Upon receiving or observing an unauthorized MANPADS alert/advisory, contact the Alaska Flight Service Information Area Group(AFSIAG) through the Alaskan Region Regional Operations Center (ROC).*

2. *Continue broadcasting the MANPADS alert/advisory until advised by national headquarters the threat is no longer present. Coordination may be through the AFSIAG or the Alaskan ROC.*

REFERENCE–
FAA Order JO 7210.3, Para 2-1-10, Handling MANPADS Incidents.

(l) Any other advisories applicable to the area covered by the LAA.

(m) Local frequency advisory.

PHRASEOLOGY–
CONTACT (facility name) RADIO ON (frequency) FOR TRAFFIC ADVISORIES.

(n) Instructions for the pilot to acknowledge receipt of the AFIS message on initial contact.

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. Estimated time of departure (ETD) and estimated time en route (ETE).

b. The specialist must issue the following cautionary advisory to a pilot planning a flight outside of United States controlled airspace, unless the pilot advises they 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.

c. Using all sources of weather and aeronautical information, provide the following data when it is applicable to the proposed flight. Provide the information in subparagraphs c1 through c8 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, NOTAMs; for example, airport/runway closures, air traffic delays, TFRs 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 1400Z for moderate turbulence below 10,000 feet over the mountainous area of southern California."
"Palmer airport closed"

NOTE–
NOTAMs in this category may be provided with NOTAMs listed in subparagraph c8.

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.

PHRASEOLOGY–
VFR FLIGHT NOT RECOMMENDED

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 not recommended between Salt Lake City and Grand Junction after two two zero zero ZULU."
"V-F-R flight not recommended in the Seattle area until early afternoon. The current weather at Seattle is indefinite ceiling three hundred, 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. If

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

5. *En Route Forecast*. Summarize forecast information that will affect the proposed flight; for example, area forecasts for the Gulf of Mexico, Caribbean, Alaska, and Hawaii; Static Graphical Forecast Images for the CONUS, 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 estimated time of arrival (ETA).

7. *Winds Aloft*. Provide forecast winds aloft for the flight 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 affecting the flight:

(a) NOTAM (D). All NOTAMs (D), including 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 3-2-1c13(a).

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

9. *Prohibited Areas P-40, P-56, and the Special Flight Rules Area (SFRA) for Washington, DC*. Include this element when pertinent to the route of flight. Advise the pilot that VFR flight within 60 miles of the DCA VOR/DME requires Special Awareness Training.

NOTE–
Refer to 14 CFR Part 93 for additional information such as special awareness for flights in and around SFRAs and/or areas that require special air traffic rules.

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

11. *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 (paragraph 9–2–5). Advise the pilot to contact Flight Service to report en route conditions.

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

(a) Special use airspace, except those listed in paragraph 3-2-1c8(a), SUA-related airspace (air traffic control assigned airspace (ATCAA)), and 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, MOA, warning area and ATCAA. MTR data includes the following types of airspace: instrument flight rule (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, air defense identification zone (ADIZ) rules, SAR, etc.

(d) Military NOTAMs.

REFERENCE–
FAA Order JO 7930.2, Paragraph 8-3-1, Military NOTAM Availability.

(e) Special FDC instrument approach procedure changes.

(f) FDC NOTAMs containing amendments to airways, airport, and facility IFR procedures and General Information.

NOTE–
General FDC NOTAMs include Chart amendments, Special Security Instructions, and Special Advisory Notices.

(g) Information contained in the Notices to Airmen Publication to include Part 95 Revisions, International NOTAMs and Graphic Notices.

3–2–2. CONDUCT OF ABBREVIATED BRIEFING

a. 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. If applicable, include the statement "VFR flight not recommended" in accordance with subparagraph 3-2-1c2. The specialist must issue the following cautionary advisory to a pilot planning a flight outside of United States controlled airspace, unless the pilot advises they 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. Conduct abbreviated briefings as follows:

1. 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 subparagraph 3-2-1c1, at the pilot's request.

2. 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.

3. 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 subparagraph 3-2-1c.

4. 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 subparagraph 3-2-1c1.

5. Solicit PIREPs in accordance with subparagraph 3-2-1c11.

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 subparagraph 3-2-1c. Omit items in subparagraphs c2, c4, and c7 through c11, unless specifically requested by the pilot or deemed pertinent by the specialist.

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

a. 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 delivery of ATC clearances, advisories or requests, issuance of military flight advisory messages, NOTAM, SAR communications searches, flight plan handling, transcribed or live broadcast, weather observations, PIREPs, and pilot briefings.

b. Upon request, 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. 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 must 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.

NOTE–
Provide inflight services in accordance with the procedures in this chapter to aircraft on a "first come, first served" basis, as circumstances permit.

c. Prior to assuming inflight duties, the specialist must review, as a minimum, the graphic information listed in subparagraph 3–1–4a, Weather Display Products (if available). 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.

4–1–2. 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 to civilian air ambulance flights (call sign "MEDEVAC"). Use of the MEDEVAC call sign indicates that operational priority is requested. When verbally requested, provide priority to AIR EVAC, HOSP, and scheduled air carrier/air taxi flights. Assist the pilots of MEDEVAC, AIR EVAC, and HOSP aircraft to avoid areas of significant weather and turbulent conditions. When requested by a pilot, provide notifications to expedite ground handling of patients, vital organs, or urgently needed medical materials.

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 automated flight inspection "Flight Check (number) Recorded" aircraft.

4–1–3. INFLIGHT WEATHER BRIEFING

Upon request, provide inflight weather briefings, in accordance with the procedure outlined in Chapter 3, Section 2.

4–1–4. 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.

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 and any special handling requested.

d. Relay to other specialists or facilities who will handle the aircraft all information concerning the equipment malfunction on the aircraft and any special handling requested or being provided.

4–1–5. AIRCRAFT REPORTED 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, Daily Record of Facility Operation.

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 when requested by Technical Operations personnel.

(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 global positioning system (GPS)/global navigation satellite system (GNSS) anomaly:

1. Request the following information:

(a) Aircraft call sign and type of 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 Wide Area Augmentation System (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 4–1–5b.

d. When a pilot reports an ADS-B services malfunction (i.e., ADS-B, TIS-B, FIS-B, or ADS-R):

1. Request the following information:

(a) Aircraft call sign and type of aircraft.

(b) Date and time of observation.

(c) Location and altitude of anomaly.

(d) Condition observed (or anomaly).

(e) Type and software version of avionics system.

2. Forward this information to an Operations Control Center (OCC) or Service Operations Center (SOC) as appropriate.

3. Record the incident on FAA Form 7230-4.

4–1–6. 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.*

d. *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 must provide appropriate phraseology examples for local use.

e. *Altimeter Setting in Millibars (MBs)*. If a request for the altimeter setting in MBs is received, use the setting for the location nearest the position of the aircraft and convert to the MBs equivalent value using a MBs conversion chart. If the Mbs 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	992.6	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	1044.4	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. Forward pilot requests to execute the Visual Climb Over Airport (VCOA) procedure to ATC. 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 FAA Order JO 7110.65, Air Traffic Control, Chapter 4, Section 2, Clearances, and Section 3, Departure Procedures.

PHRASEOLOGY–
Aircraft on the ground:

(ARTCC facility's name) Center FLIGHT DATA, CLEARANCE REQUEST
or

(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-
PCG.

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.

(a) When requesting:

PHRASEOLOGY–
(Facility) RADIO. (Aircraft identification), REQUEST V-F-R DEPARTURE.

(b) When relaying to aircraft:

PHRASEOLOGY–
A-T-C ADVISES (aircraft identification) V-F-R DEPARTURE APPROVED. CONTACT (facility) ON (frequency) AT (location or time, if required) FOR CLEARANCE.

(c) Relaying to control facility:

PHRASEOLOGY–
(Facility) RADIO. (Aircraft identification) DEPARTED V-F-R AT (time).

4–3–9. IFR FLIGHT PROGRESS REPORTS

Relay to the appropriate ATC facility the aircraft identification, position, time, altitude, estimate of next reporting point, name of subsequent reporting point, and any pilot remarks or requests including amended flight plan data.

PHRASEOLOGY–
(Facility) RADIO. PROGRESS. (Aircraft identification), (position), (altitude), (time) (name and estimate of next reporting point) (name of subsequent reporting point) (pilot's remarks).

4–3–10. ARRIVAL/MISSED APPROACH REPORTS

Relay to the appropriate ATC facility, by the most expeditious means available, the time that an IFR aircraft lands, cancels, or executes a missed approach, and intentions, if known.

4–3–11. NONDELIVERY OF MESSAGES

Inform ATC when a message has not been delivered within:

a. Three minutes of receipt; or

b. Three minutes after the specified delivery time; or

c. A specified cancellation time.

4–3–12. BROADCAST (BLIND TRANSMISSION) OF MESSAGES

Broadcast messages as requested by ATC. If no accompanying transmitting instructions are received, transmit the message four times:

a. Once upon receipt; and

b. At approximately 3-minute intervals thereafter.

4–3–13. PENETRATION OF CLASS A AIRSPACE OR PROHIBITED/RESTRICTED AREA

a. Penetration of Class A airspace. When a VFR aircraft's position report indicates penetration of Class A airspace:

1. Inform the pilot of the Class A airspace penetration and request intentions.

PHRASEOLOGY–
YOU ARE IN CLASS A AIRSPACE. AN A-T-C CLEARANCE IS REQUIRED. REQUEST YOUR INTENTIONS.

2. Inform the control facility immediately.

3. Relay ATC instructions.

b. Penetration of PROHIBITED/RESTRICTED AREA. When an aircraft report indicates penetration of a prohibited/restricted area:

1. Inform the pilot.

PHRASEOLOGY–
YOU ARE IN A PROHIBITED/RESTRICTED AREA, AUTHORIZATION IS REQUIRED. REQUEST YOUR INTENTIONS.

2. Inform the control facility immediately. Relay ATC instructions.

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.

c. AEO-100 will provide the nearest location. Have AEO-100 standby while the information is relayed to the pilot.

d. If the pilot wishes to divert to the airport location provided, obtain an estimated arrival time from the pilot, and advise the person in charge of the watch.

e. After the aircraft destination has been determined, provide the estimated arrival time to AEO-100. AEO–100 will then notify the appropriate airport authority at the diversion airport. In the event the K-9 team is not available at this airport, AEO-100 will advise the air traffic facility and provide them with the secondary location. Relay this to the pilot concerned for appropriate action.

REFERENCE–
FAA Order JO 7210.3, Para 2-1-12, Explosives Detection K-9 Teams

5–2–11. INFLIGHT EQUIPMENT MALFUNCTIONS

When a pilot reports an inflight equipment malfunction, take the following action:

a. Request the nature and extent of any special handling desired.

NOTE–
14 CFR Part 91.187 requires the pilot in command of each aircraft operated in controlled airspace under IFR MUST report as soon as practical to ATC any malfunctions of navigational, approach, or communication equipment occurring in flight. This includes the degree to which the capability of the aircraft to operate IFR in the air traffic control system is impaired and the nature and extent of any assistance desired from air traffic control.

b. Provide the maximum assistance possible consistent with equipment, workload, and any special handling requested.

c. Relay any special handling required or being provided to other specialists or facilities who will subsequently handle the aircraft.

5–2–12. MINIMUM FUEL

If an aircraft declares a state of "minimum fuel," inform any facility to whom control jurisdiction is transferred of the minimum fuel problem and be alert for any occurrence which might delay the aircraft en route.

NOTE–
Use of the term "minimum fuel" indicates recognition by a pilot that the fuel supply has reached a state whereupon reaching destination, any undue delay cannot be accepted. This is not an emergency situation but merely an advisory that indicates an emergency situation is possible should any undue delay occur. A minimum fuel advisory does not imply a need for traffic priority. Common sense and good judgment will determine the extent of assistance to be given in minimum fuel situations. If, at any time, the remaining usable fuel supply suggests the need for traffic priority to ensure a safe landing, the pilot should declare an emergency and report fuel remaining in minutes.

5–2–13. AIRCRAFT BOMB THREATS

a. When information is received from any source that a bomb has been placed on, in, or near an aircraft for the purpose of damaging or destroying such aircraft, notify the supervisor or facility manager. If the threat is general in nature, handle it as a suspicious activity. When the threat is targeted against a specific aircraft and you are in contact with that aircraft, take the following actions as appropriate:

NOTE–
1. *Facility supervisors are expected to notify the appropriate offices, agencies, and operators/air carriers according to applicable plans, directives, FAA Order JO 7210.3, Facility Operation and Administration, or military directives.*

2. *Suspicious activity is covered in FAA Order JO 7610.4, Chapter 7, Hijacked/Suspicious Aircraft Reporting and Procedures. Military facilities would report a general threat through the chain of command or according to service directives.*

REFERENCE–
FAA Order JO 7610.4, Chapter 7, Hijacked/Suspicious Aircraft Reporting and Procedures.

3. *A specific threat may be directed at an aircraft registry or tail number, the air carrier flight number, the name of an operator, crew member or passenger, the departure/arrival point or times, or combinations thereof.*

1. Advise the pilot of the threat.

2. Report the threat to the Domestic Events Network (DEN) Air Traffic Security Coordinator (ATSC) via (844) 432-2962 (toll–free). If unable to

contact the DEN ATSC notify the Transportation Security Administration/Transportation Security Operation Center (TSA/TSOC) directly at 703-563-3400.

3. Ask if the pilot desires to climb or descend to an altitude that would equalize or reduce the outside air pressure/existing cabin air pressure differential. Obtain and relay an appropriate clearance considering minimum en route altitude (MEA), minimum obstruction clearance altitude (MOCA), minimum reception altitude (MRA), and weather.

NOTE–
Equalizing existing cabin air pressure with outside air pressure is a key step which the pilot may wish to take to minimize the damage potential of a bomb.

4. Handle the aircraft as an emergency, and/or provide the most expeditious handling possible with respect to the safety of other aircraft, weather conditions, ground facilities, and personnel.

NOTE–
Emergency handling is discretionary and should be based on the situation. With certain types of threats, plans may call for a low-key action or response.

5. Obtain and relay clearance to a new destination, if requested.

6. When a pilot requests technical assistance or if it is apparent that such assistance is needed, do NOT suggest what actions the pilot should take concerning a bomb, but obtain the following information and notify the supervisor who will contact the DEN ATSC or TSA/TSOC as explained in a2 above.

NOTE–
This information is needed by TSA explosives experts so that the situation can be assessed and immediate recommendations made to the pilot. The aviation explosives experts may not be familiar with all military aircraft configurations but can offer technical assistance which would be beneficial to the pilot.

(a) Type, series, and model of the aircraft.

(b) Precise location/description of the bomb device, if known.

(c) Other details which may be pertinent.

b. When a bomb threat involves an aircraft on the ground and you are in contact with the suspect aircraft, take the following actions in addition to those discussed in the preceding paragraphs which may be appropriate:

1. If the pilot ignores the threat, recommend that takeoff be delayed until the pilot or aircraft operator establishes that a bomb is not aboard.

2. Advise the aircraft to remain as far away from other aircraft and facilities as possible, to clear the runway, if appropriate, and to taxi to an isolated or designated search area. When it is impractical or if the pilot takes an alternative action, such as parking and offloading immediately, advise other aircraft to remain clear of the suspect aircraft by at least 100 yards, if able.

NOTE–
Passenger deplaning may be of paramount importance and must be considered before the aircraft is parked or moved away from the service areas. The decision to use ramp facilities rests with the pilot, aircraft operator, and/or airport manager.

c. If you are unable to inform the suspect aircraft of a bomb threat or if you lose contact with the aircraft, advise your supervisor to contact the DEN ATSC for relay of pertinent details to other sectors or facilities, as deemed necessary.

d. When a pilot reports the discovery of a bomb or suspected bomb on an aircraft, determine the pilot's intentions and comply with his/her requests insofar as possible. Take all the actions discussed in the preceding paragraphs which may be appropriate under the existing circumstances.

e. The handling of aircraft when a hijacker has or is suspected of having a bomb requires special considerations. Be responsive to the pilot's requests and notify supervisory personnel. Apply hijacking procedures in accordance with FAA Order JO 7610.4, Special Operations, Chapter 7, and if needed, offer assistance to the pilot according to the preceding paragraphs.

5–2–14. EMERGENCY SECURITY CONTROL OF AIR TRAFFIC (ESCAT)

a. 32 CFR 245 Plan for the Emergency Security Control of Air Traffic (ESCAT) outlines responsibilities, procedures, and instructions for the security control of civil and military air traffic under various emergency conditions.

b. When notified of ESCAT implementation, follow the instructions received from the Air Traffic

Control System Command Center (ATCSCC), ARTCC, and/or Domestic Events Network (DEN) air traffic security coordinator (ATSC).

1. To ensure that ESCAT actions can be taken expeditiously, periodic ESCAT tests will be conducted in connection with NORAD exercises. Tests may be local, regional, or national in scope.

2. FSS must participate in tests except where such participation will involve the safety of aircraft.

3. During ESCAT tests, all actions will be simulated.

REFERENCE–
FAA Order JO 7610.4, Chapter 6, Emergency Security Control of Air Traffic (ESCAT).

transmitted from the flight plan mask 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 will be automatically processed if they are in the proper format.

3. Improperly formatted acknowledgments will be directed to a list for manual processing and will generate an alert at designated workstations for editing.

4. The Suspense List will display the aircraft identification and message numbers in chronological order of transmission times and the addressees for each message with an indication of those that have not acknowledged.

5. If a transmission has not been acknowledged by all addressees within 30 minutes, an alert will be generated by the operational system.

6. Upon receipt of a Suspense alert, retransmit the message to addressees who have not acknowledged the message.

7. When an acknowledgment message is received from any other source, such as interphone/telephone or facility guarding for the addressee, the specialist must manually acknowledge the message.

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–
FF KRCAYXYX
DTG KRIUYFYX
R DECAL01

NOTE–
The operational system 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 flight notification, 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. Suspense the message, await 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 alert at designated workstations.

c. If no information is received (for example, departure time, revised ETA) indicating that the flight is still active prior to the void time, close the flight plan and 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 if not already known:

(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.

2. Transmit a revised flight notification message to the departure, original, and new destination tie-in facilities 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:
FF KBOIYFYX KSEAYFYX
DTG KCDCYFYX
VFR N98789 C182/U PVU GEG 2230 $0VR SLC 1900 ORIG DESTN BOI

IFR Change of Destination:
FF KRCAYXYX KTIKYXYX KRIUYFYX
DTG KCDCYFYX
IFR DECAL01 T43/R SMF TIK 0230 $AP3NP3S OVR SLC 2330 ORIG DESTN RCA

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 send a flight notification message to the destination tie-in facility. Include the type of flight plan, aircraft identification and type, departure point, destination, ETA, and pertinent remarks.

EXAMPLE–
FF KABQYFYX
DTG KOAKYFYX
VFR N87690 C182/U SFO ELP 2100 $CNLD
IFR OVER BFL

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–
FF KTIKYXYX
DTG KDENYFYX
DECAL01 CHGD TO VFR RON

6–4–9. CHANGE IN ETA

When an aircraft wants to change its ETE, obtain a new ETA, and forward the information to the destination tie-in facility as a numbered message. The destination tie-in facility must acknowledge and, thereafter, use the new ETA as the standard for any necessary follow-up action; for example, QALQ message.

EXAMPLE–
FF KENAYFYX
DTG KSEAYFYX
SEA001 ENA
N34567 E2140

REFERENCE–
FAA0 7210.3, Para. 14-1-3.c. Flight Plan Area.

6–4–10. FLIGHT PLAN CLOSURE

Do not transmit arrival reports except under unusual circumstances or in the following cases:

a. Transmit arrival or other information involving FAA or Canadian MOT aircraft by a numbered message to any facility requested by the pilot.

EXAMPLE–
FF KDCAYFYX
DTG KHHRYFYX
HHR002 DCA
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 a numbered arrival message to the departure station with the remark "FPNO" and the departure point and destination identifiers. The departure station must relay the arrival information to the station holding the flight plan notification message in the active file.

Chapter 7. International Operations

Section 1. Messages and Formats

7–1–1. GENERAL

a. Title 19 of the U.S. Code of Federal Regulations (CFR), Part 122 contains Advance Passenger Information System (APIS) regulations, which require APIS manifests to be submitted to U.S. Customs and Border Protection (CBP) for all private aircraft arriving from or departing for a foreign port or place. APIS regulations also require that electronic notices of arrival and departure as well as electronic manifests relative to travelers (passengers and crew) be submitted to CBP within specific timeframes. For detailed information on the APIS regulations, see Advance Information on Private Aircraft Arriving and Departing the United States, 73 Fed. Reg. 68,295 (Nov. 18, 2008) (19 CFR 122.22). This publication, along with other resources, is available at http://www.cbp.gov. In addition, 14 CFR and the International Civil Aviation Organization (ICAO) require flight plans for all civil aircraft operation between the United States and foreign locations. International flight plan information and ADIZ penetration requirements are listed in other publications; for example, the Aeronautical Information Manual (AIM), the Aeronautical Information Publication (AIP), 14 CFR Part 91, and 14 CFR Part 99.

b. This chapter provides guidance to FSS facilities when transmitting 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. 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 FSS (ENA): Alaska.

3. Honolulu (HNL)/Oakland (OAK) Sectors: Pacific.

4. Seattle Sector (SEA): Pacific Northwest to Alaska

d. To ensure that the FSS gateway facility/sector understands your request, include T (transmit) instructions in the first line of text.

EXAMPLE–
FF KOAKYFYX

DTG PAJNYFYX

OAK T ALL INTL ADDRESSEES

(Text)

e. Use of FAA Form 7233–4 is mandatory for all IFR flights that will depart U.S. controlled airspace and enter international airspace. The filer is responsible for providing the information required in items 3 through 19.

7–1–2. AIR TRAFFIC SERVICE (ATS) MESSAGES

ATS messages, as used in this section, 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; for example, 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 a2 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 immediately generates 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 TJSJYFYX
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. Operational Systems use the ICAO Flight Plan or Service-B message formats as described in the Operational System operating procedures.

b. 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).

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 described below. 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; for example, MPTO. Use only those listed in ICAO DOC 7910 (Location Indicators). Some ICAO eight-character addressees for Mexico and Canada are listed in FAA Order JO 7350.9, 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; for example, 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 (FAARegional Office or Headquarters).
YCYX Rescue Coordination Center (RCC).
YDYX Authority Supervising the Aerodrome.
YFYX Aeronautical Fixed Station FSS/IATSC).
YMYX Meteorological Office (NWS).
YNYX International NOTAM Office (NOF).
YTYX Telecommunications Authority.
YWYX Military Flight Operational Control Center (ACP)
YXYX Military Organization (BASOPS).
YYYX 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 airfiled 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. *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 turbo jet 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, must be addressed to the adjacent ACC to provide lateral separation. For all other aircraft, a 120 nautical mile proximity limit must 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 departure message (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 must 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. All IFR flights that depart U.S. domestic airspace and enter international airspace must use FAA Form 7233-4, International Flight Plan (see Appendix A), the ICAO Model Flight Plan Form in ICAO DOC 4444, or an electronic equivalent. The flight plan filer is responsible for providing the information required in items 3 through 19.

1. The procedure described in paragraph a. above also applies to IFR flight plans originating within or transiting Pacific Flight Information Regions (FIR) and flying to or from FIRs beyond the Pacific Region including the North American (NAM) Region.

NOTE–
The NAM Region encompasses the conterminous U.S., Alaska, and Canada to the North Pole.

2. VFR flights within the conterminous U.S., Canada, Mexico, Honolulu, Alaska, and San Juan domestic control areas may use FAA Form 7233-1, Flight Plan, or an electronic equivalent.

b. When paper forms are used, record on the form the time the flight plan was filed. 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 an automated 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 must be sent to ATS units that transmit Request Supplementary Flight Plan (RQS) messages.

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–
FAA Order JO 7110.10, Para 6-4-8, Major Flight Plan Changes from En Route Aircraft
FAA Order JO 7110.10, Para 6-4-9, Change in ETA.

b. An FSS receiving a VFR flight plan cancellation report from aircraft en route to a foreign location must transmit a cancellation message to the appropriate foreign tie-in facility.

REFERENCE–
FAA Order 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 must 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 must 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 must 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 aerodrome reference point (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 XMMMX 2248 FUEL 0324
KNEW RB
MMMX 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
TO2103]

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
MMMX 2248 FUEL 0324
KNEW RB
MMMX 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 (FC) Waterspout or tornado (+FC), 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 TJSJYFYX
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–
FF KMIAYMYX
211538 TJSJYFYX
ARS PAA101 5045N02015W 1536 F310 ASC
F350 51N030W 21 FUEL 0900 ICE SEV

7–1–15. ARTCC RELAY OF VFR MESSAGES

ARTCC operators must relay all international VFR flight movement messages to the adjacent 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 FSS.

Section 2. Customs Notification and ADIZ Requirements

7–2–1. FLIGHT PLAN/CUSTOMS REQUIREMENTS

a. U.S. Customs and Border Protection (CBP) requirements for Advance Passenger Information System (APIS) authorizations are contained in 19 CFR 122 and apply to both inbound and outbound aircraft. Do not include ADCUS in flight plan remarks; pilots are required to coordinate directly with CBP.

b. Flight plan and customs requirements for other countries are usually contained in that country's Aeronautical Information Publication (AIP).

7–2–2. CUSTOMS REQUIREMENTS FOR INBOUND AND OUTBOUND AIRCRAFT

19 CFR Part 122 contains Advance Passenger Information System (APIS) regulations which require APIS manifests to be submitted to U.S. Customs and Border Protection (CBP) for all private aircraft arriving from or departing for a foreign port or place. APIS regulations also require that electronic notices of arrival and departure as well as electronic manifests relative to travelers (passengers and crew) be submitted to CBP within specific timeframes. For detailed information on the APIS regulations, see Advance Information on Private Aircraft Arriving and Departing the United States, 73 Fed. Reg. 68,295 (Nov. 18, 2008) (19 CFR 122.22). This publication, along with other resources, is available at http://www.cbp.gov.

a. All aircraft entering U.S. airspace from a foreign port or departing U.S. airspace for a foreign port must provide at least 1 hour advance notice to the U.S. Customs and Border Protection (CBP) via the Electronic APIS (eAPIS).

b. Pilots of aircraft inbound to the U.S. from a foreign port are required to notify CBP of any changes to their ETA which are 15 minutes or greater. Upon pilot request, relay changes in ETA to CBP.

7–2–3. ADIZ REQUIREMENTS FOR INBOUND AND OUTBOUND AIRCRAFT

a. Unless otherwise authorized by ATC, no person may operate an aircraft into, within, or across an ADIZ unless that person has filed a flight plan with an appropriate aeronautical facility.

b. Unless otherwise authorized by ATC, no person may operate an aircraft into, within, or across an ADIZ unless that aircraft is equipped with a coded radar beacon transponder and automatic pressure altitude reporting equipment having altitude reporting capability that automatically replies to interrogations by transmitting pressure altitude information in 100-foot increments.

NOTE–
This paragraph does not apply to the operation of an aircraft which was not originally certificated with an engine-driven electrical system and which has not subsequently been certified with such a system installed; for example, a balloon or glider.

c. A person who operates a civil aircraft into an ADIZ must have a functioning two–way radio, and the pilot must maintain a continuous listening watch on the appropriate aeronautical facility's frequency.

d. Pilots of aircraft entering or departing the United States through an ADIZ, or operating within an ADIZ, are required to comply with the provisions of 14 CFR 99.

e. Forward information on DVFR aircraft inbound to the U.S. to NORAD via Service B or by telephone. Forward the following information:

1. Aircraft call sign.

2. Number and type of aircraft.

3. Altitude (within ADIZ).

4. True airspeed.

5. Time of departure.

6. Point of departure.

7. Destination.

8. ETA.

9. Remarks: DVFR discrete transponder code; estimated first point of penetration of ADIZ

(latitude/longitude or fix-radial-distance); estimated time of penetration of ADIZ.

EXAMPLE–

1210 135 3442/09345 1446

NOTE–

See para 6-3-3, IFR Flight Plan Control Messages .

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

7–4–1. GENERAL

Except as indicated in this section, handle Transborder Canadian movement and control messages as described in Sections 1, 2, and 3. Do not include ADCUS in flight plan remarks for flight plans to Canada because NAV CANADA no longer alerts Canadian Customs. CANPASS authorizations are the obligation of the pilot, at the number in subpara 7–4–3a. Do not include ADCUS in flight plan remarks for flights plans from Canada to the United States because U.S. flight service no longer alerts U.S. Customs and Border Patrol (CBP). U.S. Advance Passenger Information System (APIS) authorizations are the obligation of the pilot for flights departing and entering the U.S., as stated in 19 CFR 122. APIS resources for pilots are available at http://www.cbp.gov.

7–4–2. INBOUNDS FROM CANADA

a. Do not accept VFR flight plans other than air filed flight plans for aircraft departing from Canada. Refer individuals to the appropriate NAVCANADA facility to file flight plans out of Canada. Do not accept round-robin flight plans to international locations, other than Canada.

b. The operational system should automatically format the required items of the flight notification message when activated. U.S. CBP authorizations for flights inbound to the U.S. from Canada are the obligation of the pilot and must be obtained via the APIS process. APIS resources for pilots are available at http://www.cbp.gov.

c. Facilities acknowledge receipt of flight notification messages as soon as practical by transmitting the letter "R" followed by the full aircraft identification; for example, R N711VR. Suspense VFR flight notification messages until arrival or closure information is received. Remove IFR messages from the inbound list after delivery.

7–4–3. OUTBOUNDS TO CANADA

a. When Customs notification service is requested advise the pilot to contact Canada's Private Aircraft Program for Customs (CANPASS) at 888–226–7277 and include CANPASS in the remarks section of the flight plan. If the pilot informs that he/she has contacted CANPASS, place CANPASS in the remarks section of the flight plan. Process outbound flight plans in accordance with Chapter 6 and subparas 7–4–3d and e.

NOTE–
U.S. CBP authorizations for flights outbound from the U.S. to Canada are the obligation of the pilot and must be obtained via the APIS process. APIS resources for pilots are available at http://www.cbp.gov.

b. Accept Customs notification requests from inflight aircraft for relay via flight notification message only for airports of entry where Customs flight notification service is provided and when proposed ETA is during Customs service hours.

c. Upon notification of departure of VFR flights, transmit a flight notification message directly to the destination Canadian relay facility. Include CANPASS in the remarks.

NOTE–
1. *The operational system will automatically format the required items and transmit the flight notification message when activated if the proposed flight plan was filed in accordance with subparas 7-4-3d and 7-4-3e.*

2. *Facilities address messages to the destination relay facility listed in FAA Order JO 7350.9, Location Identifiers. Facilities transmit flight notification messages for VFR flights in accordance with Paragraph 6-4-4, Flight Notification Message. Flight notification messages included the type of flight plan as the first item of the notification message. CANPASS is required in the remarks, as appropriate.*

EXAMPLE–
FF CZYZZFZX
DTG KBUFYFYX
VFR N711VR C182 BUF YYZ 1735 CANPASS

d. IFR Flight Plans

1. CANPASS Flight Plans.

NOTE–
The operational system should automatically format the

required items and transmit the flight notification message.

EXAMPLE–
FR:I AI:N1234 AT:C421/R TS:280
DD:DSM TM:P1800 AE:200
RT:DSM..CYYZ
AD:CYYZ TE:0300 RM:$CANPASS
FB:0400 AA:
PD:JOE PILOT
HB:DSM NB:2 CR:R/W TL:
OP:
CP:
TA:2100

FR:I AI:N1234 AT:C421/R TS:280 DD:DSM
TM:P1800 AE:200
RT:DSM..CYYZ
AD:CYYZ TE:0300 RM:$CANPASS
FB:0400 AA:
PD:JOE PILOT
HB:DSM NB:2 CR:R/W TL:
OP:&C
CP:CZYZZFZX
TA:2100

2. Send a flight notification message on airfile IFR aircraft that has requested Customs notification. Place CANPASS (if prior notification) in the remarks section of the flight notification message. If the pilot files a flight plan, but gives no indication that CANPASS procedures have been implemented, or prefers to leave the notification off of the flight plan, leave the remarks section blank and allow the NAV CANADA specialists to handle the situation upon arrival.

e. VFR Flight Plans.

NOTE–
The operational system will automatically format the required items and transmit the flight notification message.

EXAMPLE–
EXAMPLE-
AIRFILED
FR:V AI:N1234 AT:C150 TS:90 DD:BUF
TM:D1800 AE:045 RT:BUF..CYYZ
AD:CYYZ TE:0030 RM:$CANPASS 2 FB:0330 AA:
PD:JOE PILOT
HB:DSM NB:2 CR:5/W TL:
OP:&C
CP:CZYZZFZX
TA:1830

CANPASS

FR:V AI:N1234 AT:C150 TS:90 DD:BUF
TM:P1800 AE:045 RT:BUF..CYYZ
AD:CYYZ TE:0030 RM:$CANPASS
FB:0330 AA:
PD:JOE PILOT
HB:DSM NB:2 CR:5/W TL:
OP:&C
CP:CZYZZFZX
TA:1830

f. Refer to the Canada and North Atlantic IFR and VFR supplements to determine Customs hours of service, availability of Customs flight notification service (CANPASS), and the relay facility for infrequently used Airports of Entry not listed in FAA Order JO 7350.9, Location Identifiers.

g. Suspense VFR message until acknowledgment is received.

REFERENCE–
FAA Order JO 7110.10, Para 8-5-2, Canadian Transborder.

1. If an acknowledgment is not received within 30 minutes after departure, retransmit the message. AISR facilities transmit the contraction "REQ ACP" (request acceptance) and the complete aircraft identification.

EXAMPLE–
FF CZYZZFZX
DTG KBUFYFYX
REQ ACP N711VR

2. If acknowledgment is not received within 1 hour after departure, use interphone or telephone to deliver. In any event, assure delivery prior to ETA.

3. Refer to Section B of the Canada and North Atlantic IFR Supplements for Canadian FSS and Area Control Center (ACC) telephone numbers.

h. When correcting or revising a message, retransmit the complete message preceded by the contraction CHG (change).

EXAMPLE–
FF CZYZZFZX
DTG KBUFYFYX
CHG VFR N711VR C182 BUF YYZ 1845
CANPASS

FF CZYZZFZX
DTG KBUFYFYX
CHG VFR N711VR C182 BUF YYZ 1845 CANPASS

i. Do not transmit IFR flight notification messages except for military aircraft or Customs notification purposes.

NOTE–
Canada will not acknowledge receipt of these messages.

j. When available, use interphone or telephone for flights of 30 minutes or less.

7–4–4. OUTBOUNDS TO CANADA DEPARTING FROM OUTSIDE FLIGHT PLAN AREA

Accept flight plans regardless of departure point within the NAS. (See para 7-4-1 and subpara 7-4-3a for CANPASS guidance.)

a. Forward VFR flight plan information for aircraft departing from outside the facility's flight plan area to the tie-in SECTOR/FSS for the departure point in the following format:

1. Aircraft identification.

2. Aircraft type.

3. Departure point.

4. Destination.

5. Proposed departure time/ETE.

6. Remarks.

EXAMPLE–
FF PAKTYFYX
DTG KSEAYFYX
N711VR C182 KTN YYJ P1630/0330 CANPASS

NOTE–
U.S. CBP authorizations for flights outbound from the U.S. to Canada are the obligation of the pilot and must be obtained via the APIS process. APIS resources for pilots are available at http://www.cbp.gov.

b. Forward IFR flight plan information for aircraft proposing to depart from outside the facility's flight plan area in accordance with Para 6-3-1, Domestic IFR Flight Plans. If Customs flight notification service (ADCUS) is requested, advise the pilot to contact CANPASS at 888-226-7277; include CANPASS information as an intrafacility remark, and transmit the proposal message to both the ARTCC and the tie-in SECTOR/FSS. Enter the ARTCC computer address last.

EXAMPLE–
FF KAOOYFYX KZOBZQZX
DTG KDCAYFYX
DCA2010001 FP N1234P P28R/A 150 PIT P0200
150 PIT..CIP..DKK..BUF..YYZ/0130 CANPASS

NOTE–
The operational system will automatically format the required items and transmit the flight notification message.

c. Identify the tie-in SECTOR/FSS, and advise the pilot to report departure time directly to that facility.

NOTE–
While the report may be relayed through another facility, it is the pilot's responsibility to notify the tie-in SECTOR/FSS of the departure time.

d. Upon receipt of the departure report, the tie-in SECTOR/FSS is responsible for delivery of the flight notification message to Canada.

1. Transmit a flight notification message in accordance with Paragraph 6-4-4, Flight Notification Message.

NOTE–
If a departure report has not been received within 1 hour of the proposed departure time, cancel and file the proposed flight plan.

2. The operational system changed should automatically format the required items and transmit the flight notification message.

e. Acknowledgment from the departure point tie-in SECTOR/FSS is required for both VFR and IFR proposals.

7–4–5. IFR FLIGHT PLANS DEPARTING CANADIAN AIRPORTS

a. Accept IFR flight plans departing from Canadian airports and destined to the U.S. Transmit a proposal message in ARTCC HOST computer format to the associated Canadian ACC. Address messages to the ACC listed in FAA Order JO 7350.8, Location Identifiers.

NOTE–
FSSs in Alaska will still accept Canada to Canada IFR flight plans.

b. Canada does not acknowledge for proposal messages. Do not expect or request acknowledgment.

7–4–6. SEARCH AND RESCUE MESSAGES

Provide Search and Rescue for flights inbound from Canada in accordance with Chapter 8.

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

7–5–1. GENERAL

a. Except as outlined in this section, handle transborder Mexican movement and control messages as described in Sections 1, 2, and 3. IFR flight plans to Mexico require the ICAO flight plan form.

b. Do not include ADCUS in flight plan remarks for flight plans to Mexico; Mexican Customs authorizations are the obligation of the pilot. Do not include ADCUS in flight plan remarks for flights plans from Mexico to the United States because U.S. flight service no longer alerts U.S Customs and Border Patrol (CBP). U.S. APIS authorizations are the obligation of the pilot for flights departing and entering the U.S., as stated in 19 CFR 122. APIS resources for pilots are available at http://www.cbp.gov.

7–5–2. INBOUNDS FROM MEXICO

a. Flight notification messages.

1. When received in the proper format, VFR flight notification messages are automatically acknowledged and suspended by the operational system.

2. Acknowledge receipt of a flight notification message as soon as practical by transmitting the letter R followed by the full ACID; e.g., R N7llVR. Suspense VFR flight notification messages until arrival or closure information is received. File IFR messages.

b. Search and Rescue. Provide search and rescue service in accordance with standard format/time increments listed in Section 3, Alerting Service, and Chapter 8, Search and Rescue (SAR) Procedures. The departure station in Mexico is responsible for initiating SAR action until an acknowledgment of the flight notification message is received.

7–5–3. OUTBOUNDS TO MEXICO

a. Mexican customs notification is the obligation of the pilot. U.S. CBP authorizations for flights outbound from the U.S. to Mexico are also the obligation of the pilot and must be obtained via the APIS process. APIS resources for pilots are available at http://www.cbp.gov.

NOTE–
Mexican customs regulations require that only international airports-of-entry may be used for first landing.

REFERENCE–
FAA Order JO 7350.9, Location Identifiers.

1. If the pilot still intends to land at a destination other than an airport-of-entry, advise the pilot that the flight plan will not be used for Customs or search and rescue service in Mexico.

2. Transmit the flight notification message to the Regional Flight Dispatch Office, not the destination tie-in station.

NOTE–
If the correct addressee cannot be determined, transmit to the nearest border Regional Flight Dispatch Office.

b. VFR Flight Plans.

1. Upon notification of departure of VFR flights, transmit a flight notification message. Address messages to the ICAO addressee for the appropriate destination location.

2. If a VFR flight plan is filed with a destination other than an airport-of-entry, transmit the flight notification message to the Regional Flight Dispatch Office, not the destination tie-in station. If the correct addressee cannot be determined, transmit to the nearest border Regional Flight Dispatch Office.

NOTE–
Facilities with interphone/telephone capability may relay flight notification messages by this method.

REFERENCE–
FAA Order JO 7350.9, Location Identifiers.

3. Address messages to the ICAO addressee for the appropriate destination location. Transmit the following information:

(a) Type of flight.

(b) Aircraft identification.

(c) Aircraft type.

(d) Departure point.

(e) Destination.

(f) ETA.

(g) Remarks.

EXAMPLE–
FF MMCUXMXO
DTG KSJTYFYX
VFR N1234S C182 SJT MMCU 1400 4ZUCHERMANN

c. If acknowledgment is not received within 30 minutes after departure, transmit a "request acceptance" message to the destination station tie-in addressee and to the Regional Flight Dispatch Office. Manually address the message to the designated Regional Flight Dispatch Office.

REFERENCE–
FAA Order JO 7350.9, Location Identifiers.

EXAMPLE–
FF MMCUXMXO MMMYXMXO
REQ ACP N1234S

d. The Regional Flight Dispatch Office involved will then normally send an acknowledgment to the departure station and assume responsibility for the flight notification message.

e. If acknowledgment/acceptance is not received within 1 hour of the departure, use interphone/telephone or other available means to deliver the message to the appropriate Regional Flight Dispatch Office. See TBL 7–5–1 for telephone numbers. For a complete address, add xmxo to the identifier.

TBL 7–5–1
Mexican Regional Flight Dispatch Office Phone Numbers

Mexican Regional Flight Dispatch Office Telephone Numbers		
REGION	*IDENTIFIER*	*TELEPHONE NUMBER*
CENTRO (Central)	MMMX	01152 5 762–7062 01152 5 784–40–99 ext. 153 01152 5 762–58–77 ext. 153
NORESTE (Northeast)	MMMY	01152 83 454–020 ext. 141
NOROESTE (Northwest)	MMMZ	01152 67 23–114 01152 67 22–075 ext. 140
OCCIDENTE (West)	MMGL	01152 36 890–121 ext. 32 and 167
SURESTE (Southeast)	MMMD	01152 99 231–186 ext. 149

f. Do not accept round-robin flight plans to Mexico.

Section 2. Overdue Aircraft Action

8–2–1. COMMUNICATIONS SEARCH

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 initiate a communications search to locate the aircraft by checking the following:

1. Destination airport.

2. Flight plan phone number, if available.

3. BASOPS, if applicable.

4. Customs, if applicable.

5. ATC facilities as applicable.

b. If the aircraft has not been located, check the following:

1. Departure airport

2. All airports adjacent to the destination that could accommodate the aircraft

3. Appropriate ARTCC sectors

8–2–2. QALQ

a. If the communications search does not locate the aircraft, and the flight plan is not held by the destination station, transmit a QALQ to the facility/sector that holds the flight plan.

Possible Flight Plan Originators:

KxxxYFYX	Flight Service Station/Sector
KxxxYXYX	Military BASOPS
KAISXCLX	AISR

NOTE–
QALQ is used to solicit information that is not accessible. If the flight plan information is already available to the destination tie–in facility/sector, QALQ is not required.

b. The QALQ message text must begin with the contraction "QALQ" followed by the aircraft identification.

EXAMPLE–
QALQ N12345

c. If the specialist determines that the communications search cannot be completed prior to the INREQ transmission time, the QALQ must be transmitted in time to receive the information for the INREQ message. The communications search must continue without reference to time until such a time that the aircraft is located, the communications search is complete, or the search is suspended.

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. Automated systems will accept properly formatted QALQs, INREQs, ALNOTs, INCERFAs, ALERFAs, and DETRESFAs and place them on the SAR list. A SAR alert may be generated at designated workstations. SAR messages must be deleted from the SAR list when the SAR is cancelled.

8–2–3. ACTION BY DEPARTURE STATION ON RECEIPT OF QALQ

Upon receipt of the QALQ message, the departure tie-in facility must check for any information about the aircraft, and take the following actions:

a. If the aircraft is located, notify the destination facility. This may be delivered via Service B message or recorded communications.

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 which could be pertinent to the search.

NOTE–
For operational systems using a common data base, the departure and destination station may be considered the same.

EXAMPLE–
QALQ N4367V
[flight plan information]
[additional pertinent information]

8–2–4. 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–
QALQ N4367V 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, whichever occurs first:

a. The destination tie-in facility/sector must transmit a numbered INREQ message addressed to:

1. Flight plan originator (if other than AISR).

2. En route FSS as applicable.

3. KSARYCYX (includes RCC and AISR).

4. En route ARTCCs as applicable.

5. BASOPS if destination or departure tie-in facility.

6. Other addresses the specialist deems beneficial to the search.

b. Include the flight plan and any other pertinent information in the INREQ message which could assist in search activities. Retrieve data from the history files, format the message, and transmit. Provide the aircraft's last known position as the final item of the message. The message text must begin with the contraction "INREQ," followed by the aircraft identification.

EXAMPLE–
DCA001 (appropriate three–character identifiers)
INREQ N12345
[flight plan information]
[additional pertinent information]

c. If the departure airport, route of flight, destination airport or alternate airports are within 50 miles of the Great Lakes, notify Cleveland RCC via recorded telecommunications line

d. If the flight is within the Honolulu sector, notify Honolulu SARCC via recorded telecommunications line.

e. RCC does not have transmit capability. Acknowledgement is not required for messages to RCC.

f. If additional information is received in INREQ reply messages, transmit the information, as necessary, to all original addressees.

8–3–2. ACTION UPON RECEIPT OF INREQ

Stations receiving an INREQ must take the following action:

a. Search facility records for information regarding the aircraft. Expand the communications search to include all flight plan area airports along the proposed route of flight that could accommodate the aircraft. Notify appropriate ATC facilities. Reply to the INREQ within 1 hour of receipt with flight plan and other pertinent information. If unable to complete the communications search within 1 hour, forward a status report followed by a final report when the search is complete.

EXAMPLE–
HNL001 (appropriate three–character identifiers)
INREQ N1234A [status report]

HNL001 (appropriate three–character identifiers)
INREQ N1234A [final report]

NOTE–
Upon receipt of INREQs and ALNOTs, ATCTs and ARTCCs are required to check facility records, report findings to the FSS that alerted them within 1 hour, and retain in an active status until canceled.

REFERENCE–
FAA Order JO 7110.65, Para 10-3-4, ALNOT.

b. If the INREQ indicates that the departure airport, route of flight, destination airport or alternate airports are within 50 miles of the Great Lakes, notify Cleveland RCC via recorded telecommunications line.

c. For facilities that have any portion of their incoming calls and/or Service B diverted to another facility, notify that facility of the INREQ. The facility receiving diverted calls or Service B traffic must check their records and advise of any information or contact with the aircraft.

8–3–3. CANCELLATION OF INREQ

The INREQ originator must transmit a cancellation message containing the location of the aircraft to all INREQ addressees if the aircraft is located. Notify associated ATC facilities.

EXAMPLE–
LOU001 (appropriate three–character identifiers)
INREQ N1234A CNLD LCTD BWG

Section 4. Alert Notices (ALNOTs)

8–4–1. ALNOT

a. If the replies to the INREQ are negative, or if the aircraft is not located within 1 hour after transmission of the INREQ, whichever occurs first, the destination station must transmit an ALNOT addressed to:

1. Flight Plan Originator (If other than AISR).

2. KSARYCYX (Includes RCC and AISR).

3. KxxxYAYX (appropriate Regional Operations Center (ROC)).

4. Add ARTCCs 50NM either side of route.

5. BASOPS if destination or departure tie-in facility, or the home base of the aircraft.

6. Other addresses deemed beneficial to the search by the specialist.

b. Expand the communications search area to that area extending 50 miles on either side of the proposed route of flight from the last reported position to the destination. The search area may be expanded to the maximum range of the aircraft at the request of the RCC or by the destination station.

c. If the departure airport, route of flight, destination airport, or alternate airports are within 50 miles of the Great Lakes, notify Cleveland RCC via recorded telecommunications line.

d. Include all information from the INREQ, plus any additional information received that could assist in search activities. Provide the aircraft's last known position as the final item in the message. The message text must begin with the contraction "ALNOT," followed by the aircraft identification

EXAMPLE–
ALNOT N12345
[flight plan information]
[additional pertinent information]

e. Ten minutes after the ALNOT is issued, call the RCC to ensure delivery of the ALNOT and to answer any inquiries.

NOTE–
1. *Alaska: Joint Base Elmendorf Richardson, RCC at 907-551-7230, 800-420-7230, or DSN 317–551–7230.*

2. *RCC (Tyndall AFB) phone numbers are: 800-851-3051 or 850-283-5955.*

f. If additional pertinent information is received, transmit the information, as necessary, to all original addressees.

8–4–2. ACTION UPON RECEIPT OF ALNOT

Upon receipt of an ALNOT, including those received from other ATC facilities, each station whose flight plan area extends into the ALNOT search area must:

a. Immediately conduct an expanded communications search of those airports which fall within the ALNOT search area that could accommodate the aircraft and that were not checked during the INREQ search. Notify the appropriate ATC facilities. Request the appropriate law enforcement agency to check airports which cannot be contacted otherwise.

b. For ARTCC issued ALNOTS, coordinate with the issuing facility to determine the extent of communications already completed prior to contacting airports and other ATC facilities whose flight plan area extends into the ALNOT search area

c. Within 1 hour after receipt of the ALNOT, notify the originator of the results or status of the communications search. Transmit pertinent information, such as aircraft location or position report, to the destination station.

EXAMPLE–
ALNOT N1234A [status report]
ALNOT N1234A [final report]

d. Alaska. FSSs within the ALNOT search area must broadcast the ALNOT. (See Para 2-2-2i, ALNOT Alert Announcement)

e. Request search assistance from aircraft traversing the search area.

8–4–3. REPORTING ALNOT STATUS TO RCC

If the expanded communications search fails to locate the aircraft, or if 1 hour has elapsed since ALNOT transmission, whichever occurs first, the destination station must call the RCC with a status update. When appropriate, update Cleveland RCC. Provide RCC with all pertinent information about the overdue aircraft not already provided in the ALNOT which may include:

a. Agency and the person calling.

b. Details of the flight plan. If the aircraft was not on a flight plan, include all the facts about the source of the report.

c. Time the last radio transmission was received, by whom, and the frequency used.

d. Last position report.

e. Whether an ELT signal was heard or reported along the route of flight.

f. Action taken and the proposed action by the reporting FSS.

g. Furnish positions of other aircraft known to be along or near the route of flight of the missing aircraft.

8–4–4. CANCELLATION OF ALNOT

The ALNOT remains current until the aircraft is located and/or the search is suspended by the RCC. In either case, the ALNOT originator must transmit a cancellation message with the location of the aircraft, if known, addressed to all recipients of the original ALNOT. Each facility must notify all previously alerted facilities and agencies of the cancellation.

EXAMPLE–
ALNOT N12345 CNLD ACFT LCTD JAX
ALNOT N1513B CNLD SEARCH SUSPENDED

Section 2. Pilot Weather Report (UA/UUA)

9–2–1. GENERAL

PIREPs are filed at unscheduled times with stations having sending capability to WMSCR for dissemination on the Service A domestic aviation weather system. These reports must be entered into the operational system as individual reports, not appended to a surface observation.

9–2–2. PREPARATION FOR TRANSMISSION

Record PIREP data directly into the operational system, on FAA Form 7110-2, or on other material deemed appropriate; for example, 5'' x 8'' plain paper.

9–2–3. RESPONSIBILITY

a. FSS specialists must actively solicit PIREPs in conjunction with preflight and inflight communications with pilots and assure timely dissemination of the PIREP information.

1. Timely dissemination of PIREPs alert pilots to significant weather reports and improves aviation forecasts.

2. Changing weather conditions should dictate increased frequency of PIREP solicitation.

3. PIREPs indicating good weather are valuable and pertinent to aviation weather forecasters and pilots. These include PIREPs indicating a lack of icing or turbulence, and should be disseminated in a timely fashion.

b. Each facility should make special efforts to solicit PIREPs on departure and arrival weather conditions at airports within their flight plan area.

9–2–4. PIREP DISPLAY

Maintain a PIREP graphical display to conform to the particular requirements of your facility. If it is posted for internal use only, symbology may be used at the facility's discretion. If it is displayed as a pilot self-briefing aid, the use of contractions, such as overcast (OVC), must be applicable.

9–2–5. SOLICITING PIREPs

a. Solicit PIREPs for the affected area(s) when one or more of the following weather conditions exist, are reported, or forecast to occur:

1. Ceilings at or below 5,000 feet.

2. Visibility reported on the surface or aloft is 5 miles or less.

3. Thunderstorms and related phenomenon.

4. Turbulence of moderate degree or greater.

5. Icing of light degree or greater.

6. Wind shear.

7. Braking action reports less than good.

8. Volcanic eruption, ash clouds, and/or detection of sulfur gases in the cabin: hydrogen sulfide (H_2S) or sulfur dioxide (SO_2).

(a) If only H_2S or SO_2 is reported with no reported volcanic ash clouds, ask the pilot if volcanic ash clouds are in the vicinity.

(b) The smell of sulfur gases in the cockpit may indicate volcanic activity that has not yet been detected or reported and/or possible entry into an ash-bearing cloud. H_2S, also known as sewer gas, has the odor of rotten eggs. SO_2 is identifiable as the sharp, acrid odor of a freshly struck match.

NOTE–
Pilots may forward PIREPs regarding volcanic activity using the format described in the Volcanic Activity Reporting Form (VAR) as depicted in the AIM

b. Also, solicit PIREPs regardless of weather conditions when:

1. A NWS or ATC facility indicates a need because of a specific weather or flight assistance situation.

2. Necessary to determine flying conditions pertinent to natural hazards (mountain passes, ridges, peaks) between the weather reporting stations.

3. The station is designated as responsible for PIREPs in an offshore coastal area.

c. In–Flight specialists must solicit sufficient PIREPs to remain aware of flight conditions.

d. To solicit PIREPs within a specific area, broadcast a request on NAVAIDs, transcribed broadcast facilities, or a selected communications frequency.

PHRASEOLOGY–
PILOT WEATHER REPORTS ARE REQUESTED (location/area). CONTACT (name) RADIO ON (frequency) TO REPORT THESE CONDITIONS.

9–2–6. DATA TO BE INCLUDED IN PIREPs

Include the following reports of flight conditions, as appropriate:

a. Height and coverage of cloud bases, tops, and layers.

b. Flight visibility.

c. Restrictions to visibility and weather occurring at altitude.

d. Air temperature and changes to temperature with altitude or range.

e. Direction and speed of wind aloft.

f. Duration and intensity of turbulence.

REFERENCE–
FAA Order JO 7110.10, Para 9-2-7.

g. Extent, type, and intensity of icing.

REFERENCE–
FAA Order JO 7110.10, Para 9-2-8.

h. Weather conditions and cloud cover through mountain passes and over ridges and peaks.

i. Location, extent, and movement of thunderstorms and/or tornadic activity.

j. Excessive winds aloft, LLWS, and other phenomena bearing on safety and efficiency of flight.

9–2–7. REPORTING TURBULENCE IN PIREPs

a. Turbulence reports must include location, altitude, or range of altitudes, and aircraft type, and should include whether in clouds or clear air. The degree of turbulence, intensity, and duration (occasional, intermittent, and continuous) is determined by the pilot.

1. Light. Loose objects in aircraft remain at rest.

2. Moderate. Unsecured objects are dislodged. Occupants feel definite strains against seat belts and shoulder straps.

3. Severe. Occupants thrown violently against seat belts. Momentary loss of aircraft control. Unsecured objects tossed about.

4. Extreme. Aircraft is tossed violently about, impossible to control. May cause structural damage.

b. Report Clear Air Turbulence (CAT) or CHOP if used by the pilot to describe the type of turbulence.

9–2–8. REPORTING ICING CONDITIONS IN PIREPs

a. Icing reports must include location, altitude or range of altitudes, aircraft type, air temperature, intensity, and type of icing.

b. Icing types.

1. Rime. Rough, milky, opaque ice formed by the instantaneous freezing of small super-cooled water droplets.

2. Clear. A glossy, clear or translucent ice formed by the relatively slow freezing of large super-cooled water droplets.

3. Mixed. A combination of rime and clear.

c. Icing intensity.

1. Trace. Ice becomes perceptible. Rate of accumulation slightly greater than sublimation. Deicing/anti-icing equipment is not utilized unless encountered for an extended period of time (over 1 hour).

2. Light. The rate of accumulation may create a problem if flight is prolonged in this environment (over 1 hour). Occasional use of deicing/anti-icing equipment removes/prevents accumulation. It does not present a problem if deicing/anti-icing is used.

3. Moderate. The rate of accumulation is such that even short encounters become potentially hazardous, and use of deicing/anti-icing equipment or diversion is necessary.

4. Severe. The rate of accumulation is such that deicing/anti-icing equipment fails to reduce or control the hazard. Immediate diversion is necessary.

9–2–9. MEANS USED TO SOLICIT PIREPs

Inform pilots of a need for PIREPs. The following methods may be used to collect PIREPs:

a. During preflight weather briefings.

b. On post-flight contacts.

c. During regular air-ground contacts.

d. Broadcast a request on NAVAID frequencies.

e. Append a request on HIWAS, TIBS, VOR-TWEB, or TWEB broadcasts.

f. Request PIREPs from air carrier and military operations offices, military pilot-to-forecaster units, and local aircraft operators.

g. Solicit from other air traffic facilities.

9–2–10. PIREP CLASSIFICATION

Categorize PIREPs as follows:

a. URGENT. The following weather phenomena must 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 airspeed fluctuation is not reported, classify PIREP as UUA.

NOTE–
LLWS defined as windshear within 2,000 feet of the surface.

6. Volcanic eruption, ash clouds, and/or detection of sulfur gases (H_2S or SO_2) in the cabin.

(a) If a pilot only reported the smell of H_2S or SO_2 in the cabin and confirmed no volcanic ash clouds were present, classify the report as a ROUTINE PIREP.

(b) The smell of sulfur gases in the cockpit may indicate volcanic activity that has not yet been detected or reported and/or possible entry into an ash-bearing cloud. H_2S, also known as sewer gas, has the odor of rotten eggs. SO_2 is identifiable as the sharp, acrid odor of a freshly struck match. .

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.

9–2–11. PIREP HANDLING

Upon receipt of a PIREP, accomplish the following:

a. Urgent.

1. Deliver to the ARTCC Weather Coordinator as soon as possible.

2. Enter on Service A at the first opportunity.

3. 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.

9–2–12. 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. The following flight plan sectors are responsible for collecting offshore coastal routes in the contiguous 48 states, Hawaii, and Puerto Rico: HNL, SJU, SAN, HHR, OAK, MMV, SEA, BGR,BDR, MIV, DCA, RDU, MCN, GNV, PIE, MIA, ANB, GWO, DRI, CXO, and SJT

NOTE–
The Flight Services Safety and Operations Policy Group 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 must have adequate air-ground communications coverage over its assigned offshore area.

9–2–13. PIREP PREPARATION

To assure proper dissemination of PIREPs to all system users, the encoding procedures listed below must 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, aircraft type, 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 character alphanumeric identifier to describe locations or routes. Use only authorized identifiers from FAA Order JO 7350.8, Location Identifiers.

h. Omit entries of TEIs, except as listed in subpara 9-2-13b, for which no data was reported.

9–2–14. 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 aircraft type. Do not consolidate observations from numerous aircraft types into one PIREP.

EXAMPLE–
/TP AEST
/TP C150
/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) using three digits. 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

2. Use authorized contractions for cloud cover.

EXAMPLE–
SKC
FEW
SCT
BKN
OVC

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	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
Snow Pellet Showers	SHGS
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 (incl. eruption, H_2S or SO_2)	VA
Well developed Dust/Sand Whirls	PO

3. Intensity of precipitation (- for light, no qualifier for moderate, and + for heavy) must 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 must 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 must be reported first.

EXAMPLE–
/WX FV00SM +TSRAGR

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. State the size of the hail in remarks in ¼" increments or any hail less than ¼" is stated as "GR less than ¼".

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 must 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 a M; for example, /TA 08 or /TA M08.

i. /WV. Wind direction and speed. If reported, wind direction from which the wind is blowing must be coded using three figures. Directions less than 100 degrees must be preceded by a "0". For example, a wind direction of 90 degrees is coded as 090. The wind speed must be entered as a two or three digit group immediately following the wind direction. The speed must be coded in whole knots using the hundreds digit (if not zero) and the tens and units digits. The wind group always ends with "KT" to indicate that winds are reported in knots. Speeds of less than 10 knots must be coded using a leading zero. For example, a wind speed of 8 knots must be coded 08KT and a wind speed of 112 knots must be coded 112kt.

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 (INTMT, OCNL, CONS) and intensity using contractions LGT, MOD, SEV, or EXTRM. Separate a range or variation of intensity with a hyphen; for example, MOD-SEV. If turbulence was 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 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.

Section 5. Aviation Surface Forecast/Aviation Cloud Forecast/Area Forecast (FA)

9–5–1. GENERAL

a. Area forecasts (FA) are available for the Gulf of Mexico, Caribbean, Hawaii, and Alaska through the WMSCR and provide an overview of weather conditions which could impact aviation operations. FAs are issued by the Aviation Weather Center (AWC) in Kansas City, Missouri, the Alaska Aviation Weather Unit (AAWU) in Anchorage, Alaska, and the Weather Forecast Office (WFO) in Honolulu, Hawaii. The delineation of the areas is specified in the National Weather Service Instruction 10-811. Canadian and Mexican FAs are also available through WMSCR.

b. FAs consist of the following elements according to each geographical location in TBL 9–5–1.

c. The Aviation Surface Forecast and Aviation Cloud Forecast are displayed as nine regional views and a CONUS view. These images are produced by the Aviation Weather Center and distributed by NOAAPORT and static URLs. See FIG 9–5–1, Graphical Forecast Images, for regional views.

TBL 9–5–1

Area Forecasts (FA)

	Gulf of Mexico	Caribbean	Hawaii	Alaska
Synopsis		X	X	X
Clouds and Weather	X	X	X	X (Includes AIRMETs)
Icing and Freezing Level	X	X		X
Turbulence	X	X		X

9–5–2. AREA FORECAST (FA) SCHEDULE

FAs are issued three times a day in Alaska and the Gulf of Mexico; and four times a day in Hawaii and the Caribbean. The issuance times are in TBL 9–5–2.

TBL 9–5–2

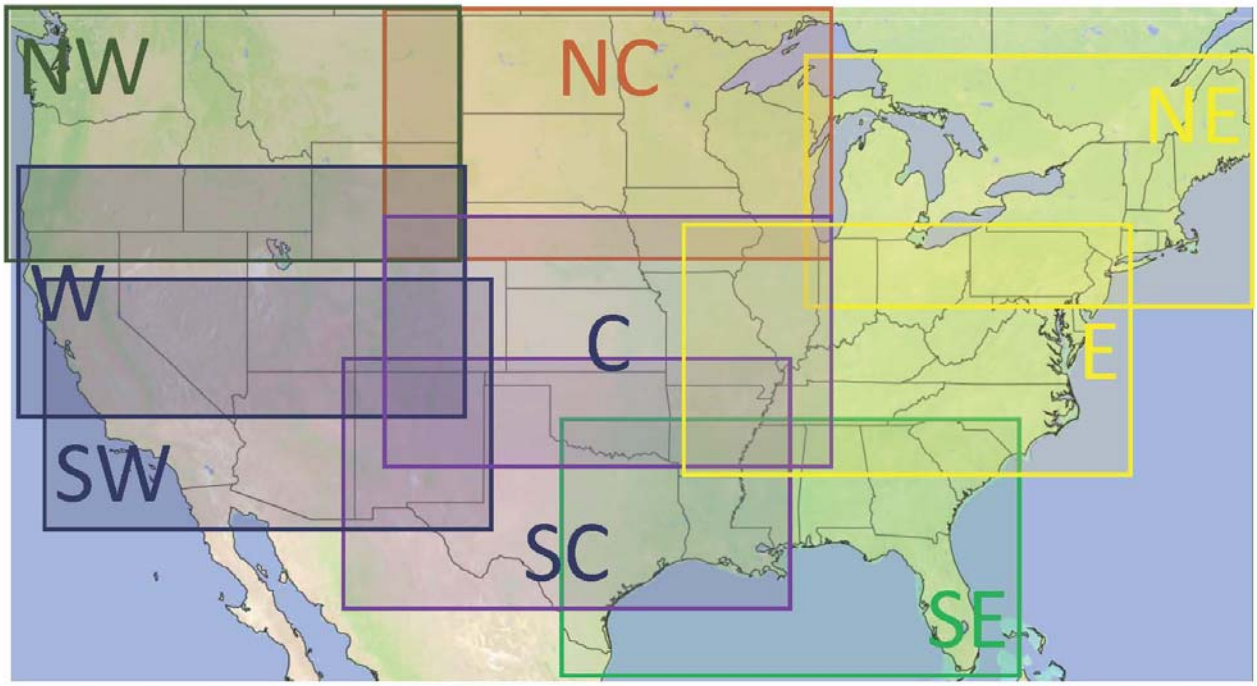
Area Forecast (FA) Schedule

	Gulf of Mexico (UTC)	Caribbean (UTC)	Hawaii (UTC)	Alaska
1st Issuance	0130	0330	0430	0415 DT 0515 ST
2nd Issuance	1030	0930	0940	1215 DT 1315 ST
3rd Issuance	1830	1530	1540	2015 DT 2115 ST
4th Issuance		2130	2140	
Note: DT – Daylight Time, ST – Standard Time, UTC – Coordinated Universal Time				

9–5–3. AVIATION SURFACE FORECAST AND AVIATION CLOUD FORECAST ISSUANCE TIMES

The Aviation Surface Forecast and Aviation Cloud Forecast are issued 8 times a day and are composed of 6 snapshots that are valid for up to 18 hours. The images are based on forecast model run times of 00Z, 03Z, 06Z, 09Z, 12Z, 15Z, 18Z, and 21Z. The actual issuance time will be 1–2 hours after each model run. The delays are due to latency.

FIG 9–5–1
Graphic Forecast Images



TBL 12–1–35
Heading/Degrees

Heading	*Phraseology*
5 degrees	‘‘Heading, zero zero five.’’
30 degrees	‘‘Heading, zero three zero.’’
360 degrees	‘‘Heading, three six zero.’’

g. Radar beacon codes. The word squawk followed by the separate digits of the four–digit code. (See TBL 12–1–36.)

TBL 12–1–36
Radar Beacon

Code	*Phraseology*
1000	‘‘Squawk one zero zero zero.’’
2100	‘‘Squawk two one zero zero.’’

h. Runways. The word “runway” followed by the separate digits of the runway designation. For a parallel runway, state the word “left,” “right,” or “center” if the letter “L,” “R,” or “C “ is included in the designation. (See TBL 12-1-37.)

TBL 12–1–37
Runway Designation

Designation	*Phraseology*
3	‘‘Runway three.’’
8L	‘‘Runway eight left.’’
27R	‘‘Runway two seven right.’’

i. Frequencies.

1. The separate digits of the frequency, inserting the word “point” where the decimal occurs. When the frequency is in the L/MF or HF band, include the word “kilohertz.” (See TBL 12-1-38.)

TBL 12–1–38
Frequencies

Frequency	*Phraseology*
302 kHz	‘‘Three zero two kilohertz.’’
5631 kHz	‘‘Five six three one kilohertz.’’
126.55 MHz	‘‘One two six point five five.’’
135.275 MHz	‘‘One three five point two seven.’’

2. Issue MLS/TACAN frequencies by stating the assigned two- or three- digit channel number.

EXAMPLE–
“M–L–S channel five three zero.”
“TACAN channel niner seven.”

j. Speeds.

1. The separate digits of the speed followed by the word knots. (See TBL 12–1–39.)

TBL 12–1–39
Speed

Speed	*Phraseology*
95	‘‘Niner five knots.’’
185	‘‘One eight five knots.’’
250	‘‘Two five zero knots.’’

2. For Mach speeds, the word “mach,” followed by the separate digits of the Mach number inserting the word “point” where the decimal occurs. (See TBL 12-1-40.)

TBL 12–1–40
Speed

Mach Number	*Phraseology*
0.64	‘‘Mach point six four.’’
0.7	‘‘Mach point seven.’’
1.5	‘‘Mach one point five.’’

k. Miles. The separate digits of the mileage followed by the word mile(s). (See TBL 12–1–41.)

TBL 12–1–41
Miles

Miles	*Phraseology*
30	‘‘Three zero miles.’’

12–1–14. FACILITY IDENTIFICATION

Identify facilities as follows:

a. Airport traffic control towers. State the name of the facility followed by the word “tower.” Where military and civil airports are located in the same general area and have similar names, state the name of the military service followed by the name of the military facility and the word “tower.”

EXAMPLE–
“Barksdale Tower.”
“Columbus Tower.”
“Navy Jacksonville Tower.”

b. Function within a terminal facility. State the name of the facility followed by the name of the function.

EXAMPLE–
“Boston Departure.”
“LaGuardia Clearance Delivery.”
“O’Hare Ground.”

c. Approach control facilities, including TRACONs, RAPCONs, RATCFs, and ARACs. State the name of the facility followed by the word approach. Where military and civil facilities are located in the same general area and have similar

names, state the name of the military service followed by the name of the military facility and the word "approach".

EXAMPLE–
"Denver Approach."
"Griffiss Approach."
"Navy Jacksonville Approach."

d. Air route traffic control centers. State the name of the facility followed by the word "center."

e. When calling or replying on an interphone line which connects only two facilities, you may omit the facility's name.

EXAMPLE–
"Flight Data."
"Inflight, clearance request."

f. Flight service stations.

1. Inflight position. State the name of the FSS followed by the word "radio," and position if appropriate.

EXAMPLE–
"Fairbanks Radio."
"Miami Radio, Inflight."

2. When calling or replying on interphone lines connecting more than one facility, state the name of the FSS followed by the word "radio."

EXAMPLE–
"Cleveland Radio."

3. When answering public access telephone lines, state the geographical name of the FSS and the words "Flight Service." Contract facilities must answer public access lines by stating the name of the service provider and type.

EXAMPLE–
"Juneau Flight Service."
"(Service Provider Name) Flight Service."

g. Radar facilities having ASR or PAR but not providing approach control service. State the name of the facility followed by the letters "G-C-A."

EXAMPLE–
"Chanute G–C–A."
"Corpus Christi G–C–A."
"Davison G–C–A."

12–1–15. AIRCRAFT IDENTIFICATION

a. Civil. State the aircraft type, the model, the manufacturer's name, or the prefix "November," followed by the numbers/letters of the aircraft registration.

EXAMPLE–
"Bonanza One Two Three Four Tango."
"Douglas Three Zero Five Romeo."
"Jet Commander One Four Two Four."
"November One Two Three Four Golf."

NOTE–
The prefix November denotes a U.S. aircraft registry.

1. Air carrier and other civil aircraft having FAA authorized call signs. State the call sign, in accordance with FAAO JO 7340.2, Contractions, followed by the flight number in group form.

EXAMPLE–
"American Five Twenty-One."
"United One Zero One."
"General Motors Thirty-Fifteen."
"Delta One Hundred."

2. If aircraft identification becomes a problem, the call sign must be restated after the flight number of the aircraft involved.

EXAMPLE–
"American Five Twenty–One American."
"Commuter Six Eleven Commuter."
"General Motors Thirty–Seven General Motors."

REFERENCE–
FAA Order JO 7210.3, Para 2-1-14, Aircraft Identification Problems

3. Air taxi and commercial operators not having FAA-authorized call signs. State the prefix "TANGO" on initial contact, if used by the pilot, followed by the registration number. The prefix may be dropped in subsequent communications.

EXAMPLE–
On initial contact.
"Tango Mooney Five Five Five Two Quebec."
or
"Tango November Five Five Five Two Quebec."
On subsequent contacts.
"Mooney Five Two Quebec."
or
"November Five Two Quebec."

b. MEDEVAC aircraft.

1. Air carrier/taxi/ambulance. State the prefix "MEDEVAC" if used by the pilot, followed by the call sign and flight number in group form.

EXAMPLE–
"MEDEVAC Delta Fifty-One."

NOTE–
Use of "MEDEVAC" call sign indicates that operational priority is requested.

2. Civilian airborne ambulance. State the word "MEDEVAC," followed by the numbers/letters of the registration number.

EXAMPLE–
"MEDEVAC Two Six Four Six X-Ray."

c. U.S. Military. State one of the following:

1. The service name followed by the word "copter," when appropriate, and the last 5 digits of the serial number.

EXAMPLE–
EXAMPLE-
"Guard Two Six Three."
"Army Copter Three Two One Seven Six."
"Coast Guard Six One Three Two Seven."
"Navy Five Six Seven One Three."

2. If aircraft identification becomes a problem when the above procedures are used, the call sign must be restated after the flight number of the aircraft involved in accordance with FAA Order JO 7210.3, Para. 2-1-14, Aircraft Identification Problems, will apply.

EXAMPLE–
"Army Copter Three Two One Seven Six Army Copter."
"Coast Guard Six One Three Two Seven Coast Guard."

3. Special military operations. State one of the following followed the last 5 digits of the serial number:

(a) Air evacuation flights. "AIR EVAC," "MARINE AIR EVAC," or "NAVY AIR EVAC."

EXAMPLE–
"AIR EVAC One Seven Six Five Two."

(b) Rescue flights. (Service name) "RESCUE."

EXAMPLE–
"Air Force Rescue Six One Five Seven Niner."

(c) Air Mobility Command. "REACH."

EXAMPLE–
"Reach Seven Eight Five Six Two."

(d) Special Air Mission. "SAM."

EXAMPLE–
"Sam Niner One Five Six Two."

(e) USAF Contract Aircraft. "LOGAIR."

EXAMPLE–
"Logair Seven Five Eight Two Six."

4. Military tactical and training.

(a) U.S. Air Force, Air National Guard, Military District of Washington priority aircraft, and USAF civil disturbance aircraft. Pronounceable words of 3 to 6 letters followed by a 1 to 4 digit number.

EXAMPLE–
"Paul Two Zero."
"Pat One Five Seven."
"Graydog Four."

NOTE–
Then the "Z" suffix described in para 6-5-3, USAF/USN Undergraduate Pilots, is added to identify aircraft piloted by USAF/USN undergraduate pilots, the call sign will be limited to a combination of six characters. Do not use this suffix, however, in ground-to-air communication.

(b) Navy or Marine fleet and training command aircraft. The service name and 2 letters or a digit and a letter (use letter phonetic equivalents) followed by 2 or 3 digits.

EXAMPLE–
"Marine Four Charlie Two Three Six."
"Navy Golf Alpha Two One."

(c) NORAD interceptors. An assigned double-letter two-digit flight number.

EXAMPLE–
"Alpha Kilo One Five."

(d) Navy Fleet Support Missions. When handling Navy Fleet Support Mission aircraft, use the words "Special Flight Number," followed by the number as given by the pilot.

d. Foreign registry. State one of the following:

1. Civil. State the aircraft type or the manufacturer's name followed by the letters/numbers of the aircraft registration, or state the letters or digits of the aircraft registration or call sign.

EXAMPLE–
"Stationair F-L-R-B."
"C-F-L-R-B."
"Canadian Foxtrot Lima Romeo Bravo."

NOTE–
Letters may be spoken individually or phonetically.

2. Air carrier. The abbreviated name of the operating company followed by:

(a) The letters or digits of the registration or call sign.

EXAMPLE–
"Air France F-L-R-L-G."

NOTE–
Letters may be spoken individually or phonetically in accordance with the format used by the pilot.

(b) The flight number in group form, or separate digits may be used if that is the format used by the pilot.

EXAMPLE–
"Scandinavian Six Eight."
"Scandinavian Sixty-eight."

3. Foreign Military.

(a) Except for military services identified in FAA Order JO 7340.2, Contractions, state the name of the country and the military service followed by the separate digits or letters of the registration or call sign.

EXAMPLE–
"Brazilian Air Force Five Three Two Seven Six."
"Canforce Five Six Two Seven."

e. Presidential aircraft and Presidential family aircraft.

1. When the President is aboard a military aircraft, state the name of the military service followed by the word "One."

EXAMPLE–
"Air Force One."
"Army One."
"Marine One."

2. When the President is aboard a civil aircraft, state the words "Executive One."

3. When a member of the President's family is aboard any aircraft, if the U.S. Secret Service or the White House Staff determines it is necessary, state the words "Executive One Foxtrot."

f. Vice Presidential aircraft.

1. When the Vice President is aboard a military aircraft, state the name of the military service followed by the word "Two."

EXAMPLE–
"Air Force Two."
"Army Two."
"Marine Two."

2. When the Vice President is aboard a civil aircraft, state the words "Executive Two."

3. When a member of the Vice President's family is aboard any aircraft, if the U.S. Secret Service or the White House Staff determines it is necessary, state the words "Executive Two Foxtrot."

g. DOT and FAA flights. The following alphanumeric identifiers and radio/ interphone call signs are for use in air/ground communications when the Secretary of Transportation, Deputy Secretary of Transportation, FAA Administrator, or FAA Deputy Administrator have a requirement to identify themselves:

1. Department of Transportation.

(a) Secretary:

(1) Identifier - DOT-1.

(2) Call Sign - Transport-1.

(b) Deputy Secretary:

(1) Identifier - DOT-2.

(2) Call Sign - Transport-2

2. Federal Aviation Administration.

(a) Administrator:

(1) Identifier - FAA-1.

(2) Call Sign - Safe Air-1.

(b) Deputy Administrator:

(1) Identifier - FAA-2

(2) Call Sign - Safe Air-2.

PHRASEOLOGY–
Grand Forks Radio, Transport Two, (message).
Miami Radio, Safe Air One, (message).

h. Other special flights.

1. Department of Energy flights. State the letters "R-A-C" (use phonetic alphabet equivalents), followed by the last 4 separate digits of the aircraft registration number.

EXAMPLE–
"Romeo Alfa Charlie One Six Five Three."

2. Semiautomatic Flight Inspections. State the code name "SAFI," followed by the separate digits of the grid number as filed.

EXAMPLE–
"SAFI Five Two Seven."

3. Flight Inspection of navigational aids. State the call sign "Flight Check," followed by the digits of the registration number.

ITEM 10: EQUIPMENT AND CAPABILITIES

Capabilities comprise the following elements:

(a) Presence of relevant serviceable equipment on board the aircraft;

(b) Equipment and capabilities commensurate with flight crew qualifications; and

(c) Where applicable, authorization from the appropriate authority.

Radio communication, navigation and approach aid equipment and capabilities

ENTER 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

ENTER one or more of the following letters to indicate the serviceable COM/NAV/ approach aid equipment and capabilities available:

A	GBAS landing system	K	MLS
B	LPV (APV with SBAS)	L	ILS
C	LORAN C	M1	ATC RTF SATCOM (INMARSAT)
D	DME	M2	ATC RTF (MTSAT)
E1	FMC WPR ACARS	M3	ATC RTF (Iridium)
E2	D-FIS ACARS	O	VOR
E3	PDC ACARS	P1	CPDLC RCP 400 (*See Note 7*)
F	ADF	P2	CPDLC RCP 240 (*See Note 7*)
G	GNSS (See Note 2)	P3	SATVOICE RCP 400 (*See Note 7*)
H	HF RTF	P4–P9	Reserved for RCP
I	Intertial Navigation	R	PBN approved (See Note 4)
J1	CPDLC ATN VDL Mode 2 (See Note 3)	T	TACAN
J2	CPDLC FANS 1/A HFDL	U	UHF RTF
J3	CPDLC FANS 1/A VDL Mode A	V	VHF RTF
J4	CPDLC FANS 1/A VDL Mode 2	W	RVSM approved
J5	CPDLC FANS 1/A SATCOM(INMARSAT)	X	MNPS approved
J6	CPDLC FANS 1/A SATCOM (MTSAT)	Y	VHF with 8.33 kHz channel spacing capability
J7	CPDLC FANS 1/A SATCOM (Iridium)	Z	Other equipment carried or other capabilities (See Note 5)

Any alphanumeric characters not indicated above are reserved.

NOTE-

1. If the letter S is used, standard equipment is considered to be VHF RTF, VOR, and ILS, unless another combination is prescribed by the appropriate ATS authority.

2. *If the letter G is used, the types of external GNSS augmentation, if any, are specified in Item 18 following the indicator NAV/ and separated by a space.*

3. *See RTCA/EUROCAE Interoperability Requirements Standard For ATN Baseline 1 (ATN B1 INTEROP Standard – DO-280B/ED-110B) for data link services air traffic control clearance and information/air traffic control communications management/air traffic control microphone check.*

4. *If the letter R is used, the performance based navigation levels that can be met are specified in Item 18 following the indicator PBN/. Guidance material on the application of performance based navigation to a specific route segment, route or area is contained in the Performance-Based Navigation Manual (Doc 9613).*

5. *If the letter Z is used, specify in Item 18 the other equipment carried or other capabilities, preceded by COM/, NAV/ and/or DAT/, as appropriate.*

6. *Information on navigation capability is provided to ATC for clearance and routing purposes.*

7. *Guidance material on the application of performance−based communication, which prescribes RCP to an air traffic service in a specific area, is contained in the Performance−based Communication and Surveillance (PBCS) Manual (Doc 9869).*

Surveillance equipment and capabilities

ENTER N if no surveillance equipment for the route to be flown is carried, or the equipment is unserviceable,

OR

ENTER one or more of the following descriptors, up to a maximum of 20 characters, to describe the serviceable surveillance equipment and/or capabilities on board. Enter no more than one transponder code (Modes A, C, or S)

SSR Modes A and C:

A Transponder - Mode A (4 digits - 4096 codes)

C Transponder - Mode A (4 digits - 4096 codes) and Mode C

SSR Mode S:

E Transponder - Mode S, including aircraft identification, pressure-altitude and extended squitter (ADS-B) capability

H Transponder - Mode S, including aircraft identification, pressure-altitude and enhanced surveillance capability

I Transponder - Mode S, including aircraft identification, but no pressure-altitude capability

L Transponder - Mode S, including aircraft identification, pressure-altitude, extended squitter (ADS−B) and enhanced surveillance capability

P Transponder — Mode S, including pressure-altitude, but no aircraft identification capability

S Transponder - Mode S, including both pressure-altitude and aircraft identification capability

X Transponder - Mode S with neither aircraft identification nor pressure-altitude capability

NOTE-
Enhanced surveillance capability is the ability of the aircraft to down-link aircraft derived data via a Mode S transponder.

ADS-B:

B1 ADS-B with dedicated 1090 MHz ADS-B “out” capability

B2 ADB-B with dedicated 1090 MHz ADS-B “out” and “in” capability

U1 ADS-B “out” capability using UAT

U2 ADS-B “out” and “in” capability using UAT

V1 ADS-B “out” capability using VDL Mode 4

V2 ADS-B “out” and “in” capability using VDL Mode 4

NOTE−
File no more than one code for each type of capability, e.g. file B1 or B2 and not both

ADS-C:

D1 ADS-C with FANS 1/A capabilities

G1 ADS-C with ATN capabilities

Alphanumeric characters not indicated above are reserved.

EXAMPLE-
ADE3RV/HB2U2V2G1

NOTE
Additional surveillance application should be listed in Item 18 following the indicator SUR/.

RNAV SPECIFICATIONS

A1	RNAV 10 (RNP 10)
B1	RNAV 5 all permitted sensors
B2	RNAV 5 GNSS
B3	RNAV 5 DME/DME
C4	RNAV 2 DME/DME/IRU
D1	RNAV 1 all permitted sensors
D2	RNAV 1 GNSS
D3	RNAV 1 DME/DME
D4	RNAV 1 DME/DME/IRU
B4	RNAV 5 VOR/DME
B5	RNAV 5 INS or IRS
B6	RNAV 5 LORAN C
C1	RNAV 2 all permitted sensors
C2	RNAV 2 GNSS
C3	RNAV 2 DME/DME

RNP SPECIFICATIONS

L1	RNP 4
O1	Basic RNP 1 all permitted sensors
O2	Basic RNP 1 GNSS
O3	Basic RNP 1 DME/DME
O4	Basic RNP 1 DME/DME/IRU
S1	RNP APCH
S2	RNP APCH with BARO-VNAV
T1	RNP AR APCH with RF (special authorization required)
T2	RNP AR APCH without RF (special authorization required)

Combinations of alphanumeric characters not indicated above are reserved.

NAV/ Significant data related to navigation equipment, other than specified in PBN/, as required by the appropriate ATS authority. Indicate GNSS augmentation under this indicator, with a space between two or more methods of augmentation, for example, NAV/GBAS SBAS.

NOTE-
See paragraph 6-2-3 to file NAV/ for flight with Area Navigation (RNAV) Routes in Domestic U.S. airspace.

COM/ Indicate communications applications or capabilities not specified in Item 10(a).

DAT/ Indicate data applications or capabilities not specified in 10(a).

SUR/ When Required Surveillance Performance (RSP) Capability has been filed in SUR/, this can be conveyed by inserting the character “Z” in Item 10 and “SUR/” in field 18 followed by the appropriate RSP performance per the following:

For RSP 180 – flight plan RSP180

For RSP 400 – flight plan RSP400

EXAMPLE-

SUR/ RSP180

SUR/ RSP400

SUR/ RSP180 RSP400

SUR/ Include surveillance applications or capabilities not specified in Item 10(b). If ADS-B capability filed in Item 10 is compliant with RTCA DO-260B, include the item “260B” in SUR/. If ADS-B capability filed in Item 10 is compliant with RTCA DO-282B, include the item “282B” in SUR/.

EXAMPLE-

1. SUR/260B

2. SUR/260B 282B

DEP/ Insert the non−ICAO identifier of departure aerodrome, if ZZZZ is inserted in Item 13, or the ATS unit from which supplementary flight plan data can be obtained, if AFIL is inserted in Item 13. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location as follows:

With 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 (11 characters).

OR Bearing and distance from the nearest significant point, as follows:

The identification of the significant point followed by the bearing from the point in the form of 3 figures giving degrees magnetic, followed by the distance from the point in the form of 3 figures expressing nautical miles. In areas of high latitude where it is determined by the appropriate authority that reference to degrees magnetic is impractical, degrees true may be used. Make up the correct number of figures, where necessary, by insertion of zeros, e.g., a point of 180° magnetic at a distance of 40 nautical miles from VOR "DUB" should be expressed as DUB180040.

OR The first point of the route (name or LAT/LONG) or the marker radio beacon, if the aircraft has not taken off from an aerodrome.

DEST/ Insert the non−ICAO identifier of destination aerodrome, if ZZZZ is inserted in Item 16. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described under DEP/ above.

DOF/ The date of flight departure in a six figure format (YYMMDD, where YY equals the year, MM equals the month and DD equals the day). The FAA will not accept flight plans filed with Date of Flight resulting in more than 24 hours in advance.

REG/ The nationality or common mark and registration mark of the aircraft, if different from the aircraft identification in Item 7.

EET/ Significant points or FIR boundary designators and accumulated estimated elapsed times from take-off 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

SEL/ SELCAL Code, for aircraft so equipped.

TYP/ Type(s) of aircraft, preceded if necessary without a space by number(s) of aircraft and separated by one space, if ZZZZ is inserted in Item 9.

EXAMPLE-
TYP/2F15 5F5 3B2

CODE/ Aircraft address (expressed in the form of an alphanumerical code of six hexadecimal characters) when required by the appropriate ATS authority. Example: "F00001" is the lowest aircraft address contained in the specific block administered by ICAO.

DLE/ En route delay or holding, insert the significant point(s) on the route where a delay is planned to occur, followed by the length of delay using four figure time in hours and minutes (hhmm).

EXAMPLE-
DLE/MDG0030

OPR/ ICAO designator or name of the aircraft operating agency, if different from the aircraft identification in item 7.

ORGN/ The originator−s 8 letter AFTN address or other appropriate contact details, in cases where the originator of the flight plan may not be readily identified, as required by the appropriate ATS authority.

NOTE-
In some areas, flight plan reception centers may insert the ORGN/ identifier and originator's AFTN address automatically.

PER/ Aircraft performance data, indicated by a single letter as specified in the Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS, Doc 8168), Volume I — Flight Procedures, if so prescribed by the appropriate ATS authority.

ALTN/ Name of destination alternate aerodrome(s), if ZZZZ is inserted in Item 16. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

RALT/ ICAO four letter indicator(s) for en-route alternate(s), as specified in Doc 7910, Location Indicators, or name(s) of en-route alternate aerodrome(s), if no indicator is allocated. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

TALT/ ICAO four letter indicator(s) for take-off alternate, as specified in Doc 7910, Location Indicators, or name of take-off alternate aerodrome, if no indicator is allocated. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

RIF/ The route details to the revised destination aerodrome, following by the ICAO four-letter location indicator of the aerodrome. The revised route is subject to reclearance in flight.

EXAMPLES-
RIF/DTA HEC KLAX
RIF/ESP G94 CLA YPPH

RMK/Any other plain language remarks when required by the appropriate ATS authority or deemed necessary.

ITEM 19: SUPPLEMENTARY INFORMATION

Endurance

After E/ *ENTER* a 4-figure group giving the fuel endurance in hours and minutes.

Persons on board

After P/ *ENTER* the total number of persons (passengers and crew) on board, when required by the appropriate ATS authority. *ENTER* 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 locator transmitter (ELT) 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 fluorescein. *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 *ENTER* number of dinghies carried; and

(CAPACITY) *ENTER* total capacity, in persons, of all dinghies carried; and

(COVER) CROSS OUT indicator C if dinghies are not covered; and

(COLOR) *ENTER* color of dinghies if carried.

A/ (AIRCRAFT COLOR AND MARKINGS)

ENTER 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) *ENTER* name of pilot-in-command.

2.3 Filed by

ENTER 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 entering COM data

Items to be completed

COMPLETE the top two shaded lines of the form, and *COMPLETE* the third shaded line only when necessary, following the provisions in PANS-ATM, Chapter 11, 11.2.1.2, 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 stokes) to ensure adherence as specified in Section 2.

3.2 Items to be transmitted

TRANSMIT items as indicated below, unless otherwise prescribed:

a. the items in the shaded lines, above Item 3;

b. Starting 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:

End–of–Text Signal

(1) one LETTER SHIFT

(2) 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. Starting with <<b (SPL: all symbols and data in the unshaded areas of boxes 7, 13, 16, and 18, except that the ‘)’ at the end of box 18 is not to be transmitted, and then the symbols in the unshaded area of box 19 down to and including the) <<b of box 19, additional alignment functions as necessary to prevent the inclusion of more than 69 characters in any line of Items 18 and 19. 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 pre-printed on the form) as necessary;

(c) the AFTN Ending, as described below:
End-of-Text Signal
(1) one LETTER SHIFT
(2) 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

Department of Transportation
Federal Aviation Administration

International Flight Plan

PRIORITY: FF

ADDRESSEE(S): EHAAZQEX EBURZQZX EDDYZQZX LFFFZQZX
LFRRZQZX LFBBZQZX LECMZQZX LPPCZQZX

FILING TIME: 1908 36

ORIGINATOR: EHAMZPZX

SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND/ OR ORIGINATOR:

3 MESSAGE: (FPL

7. AIRCRAFT IDENTIFICATION: ACF402

8 FLIGHT RULES: I

TYPE OF FLIGHT: N

9. NUMBER:

TYPE OF AIRCRAFT: E A 3 0

WAKE TURBULENCE CAT.: H

10 EQUIPMENT: S / C

13 DEPARTURE AEODROME: EHAM

TIME: 0940

15 CRUISING SPEED: 0830

LEVEL: F290

ROUTE: LEK 2B LEK UA6 XMM/M078F330
UA6 PON UR10N CHW UA5 NTS DCT 4611N00412W
DCT STG UA5 FTM FATIM1A

16. DESTINATION AERODROME: LPPT

TOTAL EET HR. MIN.: 0230

ALTN AERODROME: LPPR

2ND, ALTN AERODROME:

18 OTHER INFORMATION: REG / FBVGA SEL / EJFL
EET / LPPC0158

SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES)

19

ENDURANCE HR. MIN.: E/ 0345

PERSONS ON BOARD: P/ 300

EMERGENCY RADIO: R/ UHF: U VHF: V ELBA: E

SURVIVAL EQUIPMENT: S / POLAR: X DESERT: X MARITIME: M JUNGLE: X

LIGHT: J / L FLOURES: F UHF: X VHF: X

DINGHIES: D / NUMBER: 11 CAPACITY: 330 COVER: C COLOUR: YELLOW

AIRCRAFT COLOUR AND MARKINGS: A / WHITE

REMARKS: X /

PILOT-IN-COMMAND: C / DENKE

FILED BY	ACCEPTED BY	ADDITIONAL INFORMATION
AIR CHARTER INT.		

FAA Form 7233-4 (5-93) Supersedes Previous Edition

6. ICAO Model Flight Plan, Reverse Side

Pre-Flight Pilot Checklist

Aircraft Identification		Time of Briefing				
WEATHER (Destination) (Alternate)	☐ Present	Remarks	Report Weather Conditions Aloft			
	☐ Forcast		*Report immediately weather conditions encountered - particularly cloud tops, upper cloud layers, thunderstorms, ice, turbulence, winds and temperature.*			
			Position	Altitude	Time	Weather Conditions
WEATHER (En Route)	☐ Present					
	☐ Forcast					
	☐ PIREPS					
WINDS ALOFT	☐ Best Crzg Alt.					
NAV AID & COMM STATUS	☐ Designator					
	☐ En Route					
AIRPORT CONDITIONS	☐ Destination					
	☐ Alternate					
ADIZ	☐ Airspace Restrictions					

Civil Aircraft Pilots

FAR Part 91 states that each person operating a civil aircraft of U.S. registry over the high seas shall comply with annex 2 to the Convention of International Civil Aviation, International Standards - Rules of the Air. Annex 2 requires the submission of a flight plan containing items 1-19 prior to operating any flight across international waters. Failure to file could result in a civil penalty not to exceed $1,000 for each violation (Section 901 of the Federal Aviation Act of 1958, as amended).

Check data as soon as practicable after entering foreign airspace, as our international data may be inaccurate or incomplete.

Agency Display Of Estimated Burden For International Flight Plan

This public report burden for this collection of information is estimated to average 2.5 minutes per response.

If you wish to comment on the accuracy of the estimate or make suggestions for reducing this burden, please direct your comments to OMB and the FAA at the following addresses.

Office of Management and Budget
Paperwork Reduction Project 2120-0026
Washington, DC 20503

- and -

U.S. Department of Transportation
Federal Aviation Administration
Terminal and Flight Services
Operations and Procedures, ATO-120
800 Independence Avenue, SW
Washington DC 20591

Please DO NOT RETURN your form to either of these addresses

7. ICAO Model Repetitive Flight Plan (RPL) Listing Form

REPETITIVE FLIGHT PLAN LISTING

A OPERATOR	B ADDRESSEE(S)	C DEPARTURE AERODROME(S)	D DATE ---------- yymmdd	E SERIAL NO. ----------	F PAGE OF __ / __
			G SUPPLEMENTARY DATA (Item 19) AT:		

H + -	I VALID FROM yymmdd	J VALID UNTIL yymmdd	K DAYS OF OPERATION 1	2	3	4	5	6	7	L AIRCRAFT IDENTIFICATION (Item 7)	M TYPE OF AIRCRAFT & TURBULENCE CATEGORY (Item 9)		N DEPARTURE AERODROME AND TIME (Item 13)		O ROUTE (Item 15) CRUISING SPEED	LEVEL	ROUTE	P DESTINATION AERODROME AND TOTAL ELAPSED TIME (Item 16)		Q REMARKS

7.1 Instructions for the completion of the repetitive flight plan (RPL) listings form

7.2 General

List only flight plans that will operate in accordance with IFR. (Flight rules I in FPL format).

It is assumed that all aircraft are operating as scheduled flights (Type of flight S in FPL format), otherwise notify in Q (Remarks).

It is assumed that all aircraft operating on RPL's are equipped with 4096–code transplanters with modes A and C. Otherwise, notify Q (Remarks).

List flight plans in alphabetical order of the location indicator of the departure aerodrome.

List flight plans for each departure – aerodrome in chronological order of estimated off–block times.

Adhere closely to the data conventions as indicated for the Flight Plan Form unless otherwise specifically indicated in 7.5.

Insert all clock times in 4 figures UTC.

Insert all estimated elapsed times in 4 figures (hours and minutes).

Insert data on a separate line for each segment of operations with one or more stops; i.e., from any departure aerodrome to the next destination aerodrome even through call sign or flight number is the same for multiple segments.

Clearly identify additions and deletions in accordance with Item H at 7.4. Subsequent listings must list the corrected and added data, and deleted flight plans must 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 must 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 must 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.

8. Example of a Completed Repetitive Flight Plan (RPL) Listing Form

REPETITIVE FLIGHT PLAN LISTING

A OPERATOR	B ADDRESSEE(S)	C DEPARTURE AERODROME(S)	D DATE	E SERIAL NO.	F PAGE OF
BRITISH AIRWAYS	UK STORED FLIGHT PLAN OFFICE EGTXZBZX Chef de la Subdivision informatique 9 rue de Champagne 91205 Athismons France	EGLL	800305 yymmdd	80-12	3 / 3
			G SUPPLEMENTARY DATA (Item 19) AT: BAW Briefing Office		

H	I	J	K							L	M		N		O			P		Q
+	VALID FROM	VALID UNTIL	DAYS OF OPERATION							AIRCRAFT IDENTIFICATION	TYPE OF AIRCRAFT & TURBULENCE CATEGORY		DEPARTURE AERODROME AND TIME		ROUTE (Item 15) CRUISING SPEED	LEVEL	ROUTE	DESTINATION AERODROME AND TOTAL ELAPSED TIME		REMARKS
-	yymmdd	yymmdd	1	2	3	4	5	6	7	(Item 7)	(Item 9)		(Item 13)					(Item 16)		
+	800401	811031	1	2	3	4	5	6	7	BAW004	HS21	M	EGLL	0700	NO440	F210	A1E UA1E DPE UA16 MAN	LFPG	0045	
+	800401	800731	1	2	3	4	5	6	7	BAW032	HS21	M	EGLL	1800	NO440	F210	A1E UA1E DPE UA18 MAN	LFPG	0045	
+	800801	811031	1	0	3	0	5	0	7	BAW032	HS21	M	EGLL	1800	N0440	F210	A1E UA1E DPE UA18 MAN	LFPG	0045	
+	800601	800930	0	0	0	0	0	0	7	BAW082	HS21	M	EGLL	1805	NO450	F270	A1S UA1S RBT UA3 MTL			
																	UA3W STP DCT GL	LFMN	0130	
-	800103	800930	0	0	0	0	0	6	7	BAW092	B737	M	EGLL	1810	NO430	F190	A1E UA1E DPE UA16 MAN	LFPG	0400	CHARTERED ACFT
+	800103	800315	0	0	0	0	0	6	7	BAW092	B737	M	EGLL	1810	NO430	F190	A1E UA1E DPE UA16 MAN	LFPG	0400	CHARTERED ACFT

PILOT/CONTROLLER GLOSSARY

PURPOSE

a. This Glossary was compiled to promote a common understanding of the terms used in the Air Traffic Control system. It includes those terms which are intended for pilot/controller communications. Those terms most frequently used in pilot/controller communications are printed in ***bold italics***. The definitions are primarily defined in an operational sense applicable to both users and operators of the National Airspace System. Use of the Glossary will preclude any misunderstandings concerning the system's design, function, and purpose.

b. Because of the international nature of flying, terms used in the Lexicon, published by the International Civil Aviation Organization (ICAO), are included when they differ from FAA definitions. These terms are followed by "[ICAO]." For the reader's convenience, there are also cross references to related terms in other parts of the Glossary and to other documents, such as the Code of Federal Regulations (CFR) and the Aeronautical Information Manual (AIM).

c. This Glossary will be revised, as necessary, to maintain a common understanding of the system.

EXPLANATION OF CHANGES

d. Terms Added:
ICAO 3LD
ICAO Term ICAO Three Letter Designator
UNCONTROLLED AIRSPACE

e. Terms Deleted:
IFIM
INTERNATIONAL FLIGHT INFORMATION MANUAL

f. Terms Modified:
CLASS G AIRSPACE
INTERNATIONAL CIVIL AVIATION ORGANIZATION [ICAO]
NOTICES TO AIRMEN PUBLICATION

g. Editorial/format changes were made where necessary. Revision bars were not used due to the insignificant nature of the changes.

CLASS D AIRSPACE–
(See CONTROLLED AIRSPACE.)

CLASS E AIRSPACE–
(See CONTROLLED AIRSPACE.)

CLASS G AIRSPACE– Airspace that is not designated in 14 CFR Part 71 as Class A, Class B, Class C, Class D, or Class E controlled airspace is Class G (uncontrolled) airspace.
(See UNCONTROLLED AIRSPACE.)

CLEAR AIR TURBULENCE (CAT)– Turbulence encountered in air where no clouds are present. This term is commonly applied to high-level turbulence associated with wind shear. CAT is often encountered in the vicinity of the jet stream.
(See WIND SHEAR.)
(See JET STREAM.)

CLEAR OF THE RUNWAY–

a. Taxiing aircraft, which is approaching a runway, is clear of the runway when all parts of the aircraft are held short of the applicable runway holding position marking.

b. A pilot or controller may consider an aircraft, which is exiting or crossing a runway, to be clear of the runway when all parts of the aircraft are beyond the runway edge and there are no restrictions to its continued movement beyond the applicable runway holding position marking.

c. Pilots and controllers shall exercise good judgement to ensure that adequate separation exists between all aircraft on runways and taxiways at airports with inadequate runway edge lines or holding position markings.

CLEARANCE–
(See AIR TRAFFIC CLEARANCE.)

CLEARANCE LIMIT– The fix, point, or location to which an aircraft is cleared when issued an air traffic clearance.
(See ICAO term CLEARANCE LIMIT.)

CLEARANCE LIMIT [ICAO]– The point to which an aircraft is granted an air traffic control clearance.

CLEARANCE VOID IF NOT OFF BY (TIME)– Used by ATC to advise an aircraft that the departure clearance is automatically canceled if takeoff is not made prior to a specified time. The pilot must obtain a new clearance or cancel his/her IFR flight plan if not off by the specified time.
(See ICAO term CLEARANCE VOID TIME.)

CLEARANCE VOID TIME [ICAO]– A time specified by an air traffic control unit at which a clearance ceases to be valid unless the aircraft concerned has already taken action to comply therewith.

CLEARED APPROACH– ATC authorization for an aircraft to execute any standard or special instrument approach procedure for that airport. Normally, an aircraft will be cleared for a specific instrument approach procedure.
(See CLEARED (Type of) APPROACH.)
(See INSTRUMENT APPROACH PROCEDURE.)
(Refer to 14 CFR Part 91.)
(Refer to AIM.)

CLEARED (Type of) APPROACH– ATC authorization for an aircraft to execute a specific instrument approach procedure to an airport; e.g., “Cleared ILS Runway Three Six Approach.”
(See APPROACH CLEARANCE.)
(See INSTRUMENT APPROACH PROCEDURE.)
(Refer to 14 CFR Part 91.)
(Refer to AIM.)

CLEARED AS FILED– Means the aircraft is cleared to proceed in accordance with the route of flight filed in the flight plan. This clearance does not include the altitude, DP, or DP Transition.
(See REQUEST FULL ROUTE CLEARANCE.)
(Refer to AIM.)

CLEARED FOR TAKEOFF– ATC authorization for an aircraft to depart. It is predicated on known traffic and known physical airport conditions.

CLEARED FOR THE OPTION– ATC authorization for an aircraft to make a touch-and-go, low approach, missed approach, stop and go, or full stop landing at the discretion of the pilot. It is normally used in training so that an instructor can evaluate a student’s performance under changing situations. Pilots should advise ATC if they decide to remain on the runway, of any delay in their stop and go, delay clearing the runway, or are unable to comply with the instruction(s).
(See OPTION APPROACH.)
(Refer to AIM.)

CLEARED THROUGH– ATC authorization for an aircraft to make intermediate stops at specified airports without refiling a flight plan while en route to the clearance limit.

CLEARED TO LAND– ATC authorization for an aircraft to land. It is predicated on known traffic and known physical airport conditions.

CLEARWAY– An area beyond the takeoff runway under the control of airport authorities within which terrain or fixed obstacles may not extend above specified limits. These areas may be required for certain turbine-powered operations and the size and upward slope of the clearway will differ depending on when the aircraft was certificated.

(Refer to 14 CFR Part 1.)

CLIMB TO VFR– ATC authorization for an aircraft to climb to VFR conditions within Class B, C, D, and E surface areas when the only weather limitation is restricted visibility. The aircraft must remain clear of clouds while climbing to VFR.

(See SPECIAL VFR CONDITIONS.)

(Refer to AIM.)

CLIMBOUT– That portion of flight operation between takeoff and the initial cruising altitude.

CLIMB VIA– An abbreviated ATC clearance that requires compliance with the procedure lateral path, associated speed restrictions, and altitude restrictions along the cleared route or procedure.

CLOSE PARALLEL RUNWAYS– Two parallel runways whose extended centerlines are separated by less than 4,300 feet and at least 3000 feet (750 feet for SOIA operations) for which ATC is authorized to conduct simultaneous independent approach operations. PRM and simultaneous close parallel appear in approach title. Dual communications, special pilot training, an Attention All Users Page (AAUP), NTZ monitoring by displays that have aural and visual alerting algorithms are required. A high update rate surveillance sensor is required for certain runway or approach course spacing.

CLOSED RUNWAY– A runway that is unusable for aircraft operations. Only the airport management/ military operations office can close a runway.

CLOSED TRAFFIC– Successive operations involving takeoffs and landings or low approaches where the aircraft does not exit the traffic pattern.

CLOUD– A cloud is a visible accumulation of minute water droplets and/or ice particles in the atmosphere above the Earth's surface. Cloud differs from ground fog, fog, or ice fog only in that the latter are, by definition, in contact with the Earth's surface.

CLT–

(See CALCULATED LANDING TIME.)

CLUTTER– In radar operations, clutter refers to the reception and visual display of radar returns caused by precipitation, chaff, terrain, numerous aircraft targets, or other phenomena. Such returns may limit or preclude ATC from providing services based on radar.

(See CHAFF.)

(See GROUND CLUTTER.)

(See PRECIPITATION.)

(See TARGET.)

(See ICAO term RADAR CLUTTER.)

CMNPS–

(See CANADIAN MINIMUM NAVIGATION PERFORMANCE SPECIFICATION AIRSPACE.)

COASTAL FIX– A navigation aid or intersection where an aircraft transitions between the domestic route structure and the oceanic route structure.

CODES– The number assigned to a particular multiple pulse reply signal transmitted by a transponder.

(See DISCRETE CODE.)

COLD TEMPERATURE COMPENSATION– An action on the part of the pilot to adjust an aircraft's indicated altitude due to the effect of cold temperatures on true altitude above terrain versus aircraft indicated altitude. The amount of compensation required increases at a greater rate with a decrease in temperature and increase in height above the reporting station.

COLLABORATIVE TRAJECTORY OPTIONS PROGRAM (CTOP)– CTOP is a traffic management program administered by the Air Traffic Control System Command Center (ATCSCC) that manages demand through constrained airspace, while considering operator preference with regard to both route and delay as defined in a Trajectory Options Set (TOS).

COMBINED CENTER-RAPCON– An air traffic facility which combines the functions of an ARTCC and a radar approach control facility.

(See AIR ROUTE TRAFFIC CONTROL CENTER.)

(See RADAR APPROACH CONTROL FACILITY.)

COMMON POINT– A significant point over which two or more aircraft will report passing or have reported passing before proceeding on the same or diverging tracks. To establish/maintain longitudinal separation, a controller may determine a common point not originally in the aircraft's flight plan and then clear the aircraft to fly over the point.

(See SIGNIFICANT POINT.)

COMMON PORTION–

(See COMMON ROUTE.)

COMMON ROUTE– That segment of a North American Route between the inland navigation facility and the coastal fix.

OR

COMMON ROUTE– Typically the portion of a RNAV STAR between the en route transition end point and the runway transition start point; however, the common route may only consist of a single point that joins the en route and runway transitions.

COMMON TRAFFIC ADVISORY FREQUENCY (CTAF)– A frequency designed for the purpose of carrying out airport advisory practices while operating to or from an airport without an operating control tower. The CTAF may be a UNICOM, Multicom, FSS, or tower frequency and is identified in appropriate aeronautical publications.

(See DESIGNATED COMMON TRAFFIC ADVISORY FREQUENCY (CTAF) AREA.)

(Refer to AC 90-42, Traffic Advisory Practices at Airports Without Operating Control Towers.)

COMPASS LOCATOR– A low power, low or medium frequency (L/MF) radio beacon installed at the site of the outer or middle marker of an instrument landing system (ILS). It can be used for navigation at distances of approximately 15 miles or as authorized in the approach procedure.

a. Outer Compass Locator (LOM)– A compass locator installed at the site of the outer marker of an instrument landing system.

(See OUTER MARKER.)

b. Middle Compass Locator (LMM)– A compass locator installed at the site of the middle marker of an instrument landing system.

(See MIDDLE MARKER.)

(See ICAO term LOCATOR.)

COMPASS ROSE– A circle, graduated in degrees, printed on some charts or marked on the ground at an airport. It is used as a reference to either true or magnetic direction.

COMPLY WITH RESTRICTIONS– An ATC instruction that requires an aircraft being vectored back onto an arrival or departure procedure to comply with all altitude and/or speed restrictions depicted on the procedure. This term may be used in lieu of repeating each remaining restriction that appears on the procedure.

COMPOSITE FLIGHT PLAN– A flight plan which specifies VFR operation for one portion of flight and IFR for another portion. It is used primarily in military operations.

(Refer to AIM.)

COMPULSORY REPORTING POINTS– Reporting points which must be reported to ATC. They are designated on aeronautical charts by solid triangles or filed in a flight plan as fixes selected to define direct routes. These points are geographical locations which are defined by navigation aids/fixes. Pilots should discontinue position reporting over compulsory reporting points when informed by ATC that their aircraft is in "radar contact."

CONDITIONS NOT MONITORED– When an airport operator cannot monitor the condition of the movement area or airfield surface area, this information is issued as a NOTAM. Usually necessitated due to staffing, operating hours or other mitigating factors associated with airport operations.

CONFIDENCE MANEUVER– A confidence maneuver consists of one or more turns, a climb or descent, or other maneuver to determine if the pilot in command (PIC) is able to receive and comply with ATC instructions.

CONFLICT ALERT– A function of certain air traffic control automated systems designed to alert radar controllers to existing or pending situations between tracked targets (known IFR or VFR aircraft) that require his/her immediate attention/action.

(See MODE C INTRUDER ALERT.)

CONFLICT RESOLUTION– The resolution of potential conflictions between aircraft that are radar

identified and in communication with ATC by ensuring that radar targets do not touch. Pertinent traffic advisories shall be issued when this procedure is applied.

Note: This procedure shall not be provided utilizing mosaic radar systems.

CONFORMANCE– The condition established when an aircraft's actual position is within the conformance region constructed around that aircraft at its position, according to the trajectory associated with the aircraft's Current Plan.

CONFORMANCE REGION– A volume, bounded laterally, vertically, and longitudinally, within which an aircraft must be at a given time in order to be in conformance with the Current Plan Trajectory for that aircraft. At a given time, the conformance region is determined by the simultaneous application of the lateral, vertical, and longitudinal conformance bounds for the aircraft at the position defined by time and aircraft's trajectory.

CONSOLAN– A low frequency, long-distance NAVAID used principally for transoceanic navigations.

CONTACT–

a. Establish communication with (followed by the name of the facility and, if appropriate, the frequency to be used).

b. A flight condition wherein the pilot ascertains the attitude of his/her aircraft and navigates by visual reference to the surface.

(See CONTACT APPROACH.)
(See RADAR CONTACT.)

CONTACT APPROACH– An approach wherein an aircraft on an IFR flight plan, having an air traffic control authorization, operating clear of clouds with at least 1 mile flight visibility and a reasonable expectation of continuing to the destination airport in those conditions, may deviate from the instrument approach procedure and proceed to the destination airport by visual reference to the surface. This approach will only be authorized when requested by the pilot and the reported ground visibility at the destination airport is at least 1 statute mile.

(Refer to AIM.)

CONTAMINATED RUNWAY– A runway is considered contaminated whenever standing water, ice, snow, slush, frost in any form, heavy rubber, or other substances are present. A runway is contaminated with respect to rubber deposits or other friction-degrading substances when the average friction value for any 500-foot segment of the runway within the ALD fails below the recommended minimum friction level and the average friction value in the adjacent 500-foot segments falls below the maintenance planning friction level.

CONTERMINOUS U.S.– The 48 adjoining States and the District of Columbia.

CONTINENTAL UNITED STATES– The 49 States located on the continent of North America and the District of Columbia.

CONTINUE– When used as a control instruction should be followed by another word or words clarifying what is expected of the pilot. Example: "continue taxi," "continue descent," "continue inbound," etc.

CONTROL AREA [ICAO]– A controlled airspace extending upwards from a specified limit above the earth.

CONTROL SECTOR– An airspace area of defined horizontal and vertical dimensions for which a controller or group of controllers has air traffic control responsibility, normally within an air route traffic control center or an approach control facility. Sectors are established based on predominant traffic flows, altitude strata, and controller workload. Pilot communications during operations within a sector are normally maintained on discrete frequencies assigned to the sector.

(See DISCRETE FREQUENCY.)

CONTROL SLASH– A radar beacon slash representing the actual position of the associated aircraft. Normally, the control slash is the one closest to the interrogating radar beacon site. When ARTCC radar is operating in narrowband (digitized) mode, the control slash is converted to a target symbol.

CONTROLLED AIRSPACE– An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification.

a. Controlled airspace is a generic term that covers Class A, Class B, Class C, Class D, and Class E airspace.

b. Controlled airspace is also that airspace within which all aircraft operators are subject to certain pilot qualifications, operating rules, and equipment

requirements in 14 CFR Part 91 (for specific operating requirements, please refer to 14 CFR Part 91). For IFR operations in any class of controlled airspace, a pilot must file an IFR flight plan and receive an appropriate ATC clearance. Each Class B, Class C, and Class D airspace area designated for an airport contains at least one primary airport around which the airspace is designated (for specific designations and descriptions of the airspace classes, please refer to 14 CFR Part 71).

c. Controlled airspace in the United States is designated as follows:

1. CLASS A– Generally, that airspace from 18,000 feet MSL up to and including FL 600, including the airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous States and Alaska. Unless otherwise authorized, all persons must operate their aircraft under IFR.

2. CLASS B– Generally, that airspace from the surface to 10,000 feet MSL surrounding the nation's busiest airports in terms of airport operations or passenger enplanements. The configuration of each Class B airspace area is individually tailored and consists of a surface area and two or more layers (some Class B airspace areas resemble upside-down wedding cakes), and is designed to contain all published instrument procedures once an aircraft enters the airspace. An ATC clearance is required for all aircraft to operate in the area, and all aircraft that are so cleared receive separation services within the airspace. The cloud clearance requirement for VFR operations is "clear of clouds."

3. CLASS C– Generally, that airspace from the surface to 4,000 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower, are serviced by a radar approach control, and that have a certain number of IFR operations or passenger enplanements. Although the configuration of each Class C area is individually tailored, the airspace usually consists of a surface area with a 5 nautical mile (NM) radius, a circle with a 10NM radius that extends no lower than 1,200 feet up to 4,000 feet above the airport elevation, and an outer area that is not charted. Each person must establish two-way radio communications with the ATC facility providing air traffic services prior to entering the airspace and thereafter maintain those communications while within the airspace. VFR aircraft are only separated from IFR aircraft within the airspace.

(See OUTER AREA.)

4. CLASS D– Generally, that airspace from the surface to 2,500 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower. The configuration of each Class D airspace area is individually tailored and when instrument procedures are published, the airspace will normally be designed to contain the procedures. Arrival extensions for instrument approach procedures may be Class D or Class E airspace. Unless otherwise authorized, each person must establish two-way radio communications with the ATC facility providing air traffic services prior to entering the airspace and thereafter maintain those communications while in the airspace. No separation services are provided to VFR aircraft.

5. CLASS E– Generally, if the airspace is not Class A, Class B, Class C, or Class D, and it is controlled airspace, it is Class E airspace. Class E airspace extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace. When designated as a surface area, the airspace will be configured to contain all instrument procedures. Also in this class are Federal airways, airspace beginning at either 700 or 1,200 feet AGL used to transition to/from the terminal or en route environment, en route domestic, and offshore airspace areas designated below 18,000 feet MSL. Unless designated at a lower altitude, Class E airspace begins at 14,500 MSL over the United States, including that airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous States and Alaska, up to, but not including 18,000 feet MSL, and the airspace above FL 600.

CONTROLLED AIRSPACE [ICAO]– An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification.

Note: Controlled airspace is a generic term which covers ATS airspace Classes A, B, C, D, and E.

CONTROLLED TIME OF ARRIVAL– Arrival time assigned during a Traffic Management Program. This time may be modified due to adjustments or user options.

CONTROLLER–

(See AIR TRAFFIC CONTROL SPECIALIST.)

CONTROLLER [ICAO]– A person authorized to provide air traffic control services.

CONTROLLER PILOT DATA LINK COMMUNICATIONS (CPDLC)– A two–way digital communications system that conveys textual air traffic control messages between controllers and pilots using ground or satellite-based radio relay stations.

CONVECTIVE SIGMET– A weather advisory concerning convective weather significant to the safety of all aircraft. Convective SIGMETs are issued for tornadoes, lines of thunderstorms, embedded thunderstorms of any intensity level, areas of thunderstorms greater than or equal to VIP level 4 with an area coverage of $^{4}/_{10}$ (40%) or more, and hail $^{3}/_{4}$ inch or greater.

(See AIRMET.)
(See AWW.)
(See CWA.)
(See SIGMET.)
(Refer to AIM.)

CONVECTIVE SIGNIFICANT METEOROLOGICAL INFORMATION–

(See CONVECTIVE SIGMET.)

COORDINATES– The intersection of lines of reference, usually expressed in degrees/minutes/seconds of latitude and longitude, used to determine position or location.

COORDINATION FIX– The fix in relation to which facilities will handoff, transfer control of an aircraft, or coordinate flight progress data. For terminal facilities, it may also serve as a clearance for arriving aircraft.

COPTER–

(See HELICOPTER.)

CORRECTION– An error has been made in the transmission and the correct version follows.

COUPLED APPROACH– An instrument approach performed by the aircraft autopilot, and/or visually depicted on the flight director, which is receiving position information and/or steering commands from onboard navigational equipment. In general, coupled non-precision approaches must be flown manually (autopilot disengaged) at altitudes lower than 50 feet AGL below the minimum descent altitude, and coupled precision approaches must be flown manually (autopilot disengaged) below 50 feet AGL unless authorized to conduct autoland operations. Coupled instrument approaches are commonly flown to the allowable IFR weather minima established by the operator or PIC, or flown VFR for training and safety.

COURSE–

a. The intended direction of flight in the horizontal plane measured in degrees from north.

b. The ILS localizer signal pattern usually specified as the front course or the back course.

(See BEARING.)
(See INSTRUMENT LANDING SYSTEM.)
(See RADIAL.)

CPDLC–

(See CONTROLLER PILOT DATA LINK COMMUNICATIONS.)

CPL [ICAO]–

(See ICAO term CURRENT FLIGHT PLAN.)

CRITICAL ENGINE– The engine which, upon failure, would most adversely affect the performance or handling qualities of an aircraft.

CROSS (FIX) AT (ALTITUDE)– Used by ATC when a specific altitude restriction at a specified fix is required.

CROSS (FIX) AT OR ABOVE (ALTITUDE)– Used by ATC when an altitude restriction at a specified fix is required. It does not prohibit the aircraft from crossing the fix at a higher altitude than specified; however, the higher altitude may not be one that will violate a succeeding altitude restriction or altitude assignment.

(See ALTITUDE RESTRICTION.)
(Refer to AIM.)

CROSS (FIX) AT OR BELOW (ALTITUDE)– Used by ATC when a maximum crossing altitude at a specific fix is required. It does not prohibit the aircraft from crossing the fix at a lower altitude; however, it must be at or above the minimum IFR altitude.

(See ALTITUDE RESTRICTION.)
(See MINIMUM IFR ALTITUDES.)
(Refer to 14 CFR Part 91.)

CROSSWIND–

a. When used concerning the traffic pattern, the word means “crosswind leg.”

(See TRAFFIC PATTERN.)

b. When used concerning wind conditions, the word means a wind not parallel to the runway or the path of an aircraft.

(See CROSSWIND COMPONENT.)

CROSSWIND COMPONENT– The wind component measured in knots at 90 degrees to the longitudinal axis of the runway.

CRUISE– Used in an ATC clearance to authorize a pilot to conduct flight at any altitude from the minimum IFR altitude up to and including the altitude specified in the clearance. The pilot may level off at any intermediate altitude within this block of airspace. Climb/descent within the block is to be made at the discretion of the pilot. However, once the pilot starts descent and verbally reports leaving an altitude in the block, he/she may not return to that altitude without additional ATC clearance. Further, it is approval for the pilot to proceed to and make an approach at destination airport and can be used in conjunction with:

a. An airport clearance limit at locations with a standard/special instrument approach procedure. The CFRs require that if an instrument letdown to an airport is necessary, the pilot shall make the letdown in accordance with a standard/special instrument approach procedure for that airport, or

b. An airport clearance limit at locations that are within/below/outside controlled airspace and without a standard/special instrument approach procedure. Such a clearance is NOT AUTHORIZATION for the pilot to descend under IFR conditions below the applicable minimum IFR altitude nor does it imply that ATC is exercising control over aircraft in Class G airspace; however, it provides a means for the aircraft to proceed to destination airport, descend, and land in accordance with applicable CFRs governing VFR flight operations. Also, this provides search and rescue protection until such time as the IFR flight plan is closed.

(See INSTRUMENT APPROACH PROCEDURE.)

CRUISE CLIMB– A climb technique employed by aircraft, usually at a constant power setting, resulting in an increase of altitude as the aircraft weight decreases.

CRUISING ALTITUDE– An altitude or flight level maintained during en route level flight. This is a constant altitude and should not be confused with a cruise clearance.

(See ALTITUDE.)

(See ICAO term CRUISING LEVEL.)

CRUISING LEVEL–

(See CRUISING ALTITUDE.)

CRUISING LEVEL [ICAO]– A level maintained during a significant portion of a flight.

CT MESSAGE– An EDCT time generated by the ATCSCC to regulate traffic at arrival airports. Normally, a CT message is automatically transferred from the traffic management system computer to the NAS en route computer and appears as an EDCT. In the event of a communication failure between the traffic management system computer and the NAS, the CT message can be manually entered by the TMC at the en route facility.

CTA–

(See CONTROLLED TIME OF ARRIVAL.)

(See ICAO term CONTROL AREA.)

CTAF–

(See COMMON TRAFFIC ADVISORY FREQUENCY.)

CTAS–

(See CENTER TRACON AUTOMATION SYSTEM.)

CTOP–

(See COLLABORATIVE TRAJECTORY OPTIONS PROGRAM)

CTRD–

(See CERTIFIED TOWER RADAR DISPLAY.)

CURRENT FLIGHT PLAN [ICAO]– The flight plan, including changes, if any, brought about by subsequent clearances.

CURRENT PLAN– The ATC clearance the aircraft has received and is expected to fly.

CVFP APPROACH–

(See CHARTED VISUAL FLIGHT PROCEDURE APPROACH.)

CWA–

(See CENTER WEATHER ADVISORY and WEATHER ADVISORY.)

I

I SAY AGAIN– The message will be repeated.

IAF–
(See INITIAL APPROACH FIX.)

IAP–
(See INSTRUMENT APPROACH PROCEDURE.)

IAWP– Initial Approach Waypoint

ICAO–
(See ICAO Term INTERNATIONAL CIVIL AVIATION ORGANIZATION.)

ICAO 3LD–
(See ICAO Term ICAO Three–Letter Designator)

ICAO Three–Letter Designator (3LD)– An ICAO 3LD is an exclusive designator that, when used together with a flight number, becomes the aircraft call sign and provides distinct aircraft identification to air traffic control (ATC). ICAO approves 3LDs to enhance the safety and security of the air traffic system. An ICAO 3LD may be assigned to a company, agency, or organization and is used instead of the aircraft registration number for ATC operational and security purposes. An ICAO 3LD is also used for aircraft identification in the flight plan and associated messages and can be used for domestic and international flights. A telephony associated with an ICAO 3LD is used for radio communication.

ICING– The accumulation of airframe ice.

Types of icing are:

a. Rime Ice– Rough, milky, opaque ice formed by the instantaneous freezing of small supercooled water droplets.

b. Clear Ice– A glossy, clear, or translucent ice formed by the relatively slow freezing or large supercooled water droplets.

c. Mixed– A mixture of clear ice and rime ice.

Intensity of icing:

a. Trace– Ice becomes perceptible. Rate of accumulation is slightly greater than the rate of sublimation. Deicing/anti-icing equipment is not utilized unless encountered for an extended period of time (over 1 hour).

b. Light– The rate of accumulation may create a problem if flight is prolonged in this environment (over 1 hour). Occasional use of deicing/anti-icing equipment removes/prevents accumulation. It does not present a problem if the deicing/anti-icing equipment is used.

c. Moderate– The rate of accumulation is such that even short encounters become potentially hazardous and use of deicing/anti-icing equipment or flight diversion is necessary.

d. Severe– The rate of ice accumulation is such that ice protection systems fail to remove the accumulation of ice, or ice accumulates in locations not normally prone to icing, such as areas aft of protected surfaces and any other areas identified by the manufacturer. Immediate exit from the condition is necessary.

Note:
Severe icing is aircraft dependent, as are the other categories of icing intensity. Severe icing may occur at any ice accumulation rate.

IDENT– A request for a pilot to activate the aircraft transponder identification feature. This will help the controller to confirm an aircraft identity or to identify an aircraft.
(Refer to AIM.)

IDENT FEATURE– The special feature in the Air Traffic Control Radar Beacon System (ATCRBS) equipment. It is used to immediately distinguish one displayed beacon target from other beacon targets.
(See IDENT.)

IDENTIFICATION [ICAO]– The situation which exists when the position indication of a particular aircraft is seen on a situation display and positively identified.

IF–
(See INTERMEDIATE FIX.)

IF NO TRANSMISSION RECEIVED FOR (TIME)– Used by ATC in radar approaches to prefix procedures which should be followed by the pilot in event of lost communications.
(See LOST COMMUNICATIONS.)

IFR–
(See INSTRUMENT FLIGHT RULES.)

IFR AIRCRAFT– An aircraft conducting flight in accordance with instrument flight rules.

IFR CONDITIONS– Weather conditions below the minimum for flight under visual flight rules.
(See INSTRUMENT METEOROLOGICAL CONDITIONS.)

IFR DEPARTURE PROCEDURE–
(See IFR TAKEOFF MINIMUMS AND DEPARTURE PROCEDURES.)
(Refer to AIM.)

IFR FLIGHT–
(See IFR AIRCRAFT.)

IFR LANDING MINIMUMS–
(See LANDING MINIMUMS.)

IFR MILITARY TRAINING ROUTES (IR)– Routes used by the Department of Defense and associated Reserve and Air Guard units for the purpose of conducting low-altitude navigation and tactical training in both IFR and VFR weather conditions below 10,000 feet MSL at airspeeds in excess of 250 knots IAS.

IFR TAKEOFF MINIMUMS AND DEPARTURE PROCEDURES– Title 14 Code of Federal Regulations Part 91, prescribes standard takeoff rules for certain civil users. At some airports, obstructions or other factors require the establishment of nonstandard takeoff minimums, departure procedures, or both to assist pilots in avoiding obstacles during climb to the minimum en route altitude. Those airports are listed in FAA/DOD Instrument Approach Procedures (IAPs) Charts under a section entitled "IFR Takeoff Minimums and Departure Procedures." The FAA/DOD IAP chart legend illustrates the symbol used to alert the pilot to nonstandard takeoff minimums and departure procedures. When departing IFR from such airports or from any airports where there are no departure procedures, DPs, or ATC facilities available, pilots should advise ATC of any departure limitations. Controllers may query a pilot to determine acceptable departure directions, turns, or headings after takeoff. Pilots should be familiar with the departure procedures and must assure that their aircraft can meet or exceed any specified climb gradients.

IF/IAWP– Intermediate Fix/Initial Approach Waypoint. The waypoint where the final approach course of a T approach meets the crossbar of the T. When designated (in conjunction with a TAA) this waypoint will be used as an IAWP when approaching the airport from certain directions, and as an IFWP when beginning the approach from another IAWP.

IFWP– Intermediate Fix Waypoint

ILS–
(See INSTRUMENT LANDING SYSTEM.)

ILS CATEGORIES– 1. Category I. An ILS approach procedure which provides for approach to a height above touchdown of not less than 200 feet and with runway visual range of not less than 1,800 feet.– 2. Special Authorization Category I. An ILS approach procedure which provides for approach to a height above touchdown of not less than 150 feet and with runway visual range of not less than 1,400 feet, HUD to DH. 3. Category II. An ILS approach procedure which provides for approach to a height above touchdown of not less than 100 feet and with runway visual range of not less than 1,200 feet (with autoland or HUD to touchdown and noted on authorization, RVR 1,000 feet).– 4. Special Authorization Category II with Reduced Lighting. An ILS approach procedure which provides for approach to a height above touchdown of not less than 100 feet and with runway visual range of not less than 1,200 feet with autoland or HUD to touchdown and noted on authorization (no touchdown zone and centerline lighting are required).– 5. Category III:

a. IIIA.–An ILS approach procedure which provides for approach without a decision height minimum and with runway visual range of not less than 700 feet.

b. IIIB.–An ILS approach procedure which provides for approach without a decision height minimum and with runway visual range of not less than 150 feet.

c. IIIC.–An ILS approach procedure which provides for approach without a decision height minimum and without runway visual range minimum.

ILS PRM APPROACH– An instrument landing system (ILS) approach conducted to parallel runways whose extended centerlines are separated by less than 4,300 feet and at least 3,000 feet where independent closely spaced approaches are permitted. Also used in conjunction with an LDA PRM, RNAV PRM or GLS PRM approach to conduct Simultaneous Offset Instrument Approach (SOIA) operations. No Transgression Zone (NTZ) monitoring is required to

conduct these approaches. ATC utilizes an enhanced display with alerting and, with certain runway spacing, a high update rate PRM surveillance sensor. Use of a secondary monitor frequency, pilot PRM training, and publication of an Attention All Users Page are also required for all PRM approaches.
(Refer to AIM)

IM–
(See INNER MARKER.)

IMC–
(See INSTRUMENT METEOROLOGICAL CONDITIONS.)

IMMEDIATELY– Used by ATC or pilots when such action compliance is required to avoid an imminent situation.

INCERFA (Uncertainty Phase) [ICAO]– A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.

INCREASED SEPARATION REQUIRED (ISR)– Indicates the confidence level of the track requires 5NM separation. 3NM separation, 1 1/2NM separation, and target resolution cannot be used.

INCREASE SPEED TO (SPEED)–
(See SPEED ADJUSTMENT.)

INERTIAL NAVIGATION SYSTEM (INS)– An RNAV system which is a form of self-contained navigation.
(See Area Navigation/RNAV.)

INFLIGHT REFUELING–
(See AERIAL REFUELING.)

INFLIGHT WEATHER ADVISORY–
(See WEATHER ADVISORY.)

INFORMATION REQUEST (INREQ)– A request originated by an FSS for information concerning an overdue VFR aircraft.

INITIAL APPROACH FIX (IAF)– The fixes depicted on instrument approach procedure charts that identify the beginning of the initial approach segment(s).
(See FIX.)
(See SEGMENTS OF AN INSTRUMENT APPROACH PROCEDURE.)

INITIAL APPROACH SEGMENT–
(See SEGMENTS OF AN INSTRUMENT APPROACH PROCEDURE.)

INITIAL APPROACH SEGMENT [ICAO]– That segment of an instrument approach procedure between the initial approach fix and the intermediate approach fix or, where applicable, the final approach fix or point.

INLAND NAVIGATION FACILITY– A navigation aid on a North American Route at which the common route and/or the noncommon route begins or ends.

INNER MARKER– A marker beacon used with an ILS (CAT II) precision approach located between the middle marker and the end of the ILS runway, transmitting a radiation pattern keyed at six dots per second and indicating to the pilot, both aurally and visually, that he/she is at the designated decision height (DH), normally 100 feet above the touchdown zone elevation, on the ILS CAT II approach. It also marks progress during a CAT III approach.
(See INSTRUMENT LANDING SYSTEM.)
(Refer to AIM.)

INNER MARKER BEACON–
(See INNER MARKER.)

INREQ–
(See INFORMATION REQUEST.)

INS–
(See INERTIAL NAVIGATION SYSTEM.)

INSTRUMENT APPROACH–
(See INSTRUMENT APPROACH PROCEDURE.)

INSTRUMENT APPROACH OPERATIONS [ICAO]– An approach and landing using instruments for navigation guidance based on an instrument approach procedure. There are two methods for executing instrument approach operations:

a. A two–dimensional (2D) instrument approach operation, using lateral navigation guidance only; and

b. A three–dimensional (3D) instrument approach operation, using both lateral and vertical navigation guidance.

Note: Lateral and vertical navigation guidance refers to the guidance provided either by:
a) a ground–based radio navigation aid; or
b) computer–generated navigation data from ground–based, space–based, self–contained navigation aids or a combination of these.

(See ICAO term INSTRUMENT APPROACH PROCEDURE.)

INSTRUMENT APPROACH PROCEDURE– A series of predetermined maneuvers for the orderly

transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority.

(See SEGMENTS OF AN INSTRUMENT APPROACH PROCEDURE.)
(Refer to 14 CFR Part 91.)
(Refer to AIM.)

a. U.S. civil standard instrument approach procedures are approved by the FAA as prescribed under 14 CFR Part 97 and are available for public use.

b. U.S. military standard instrument approach procedures are approved and published by the Department of Defense.

c. Special instrument approach procedures are approved by the FAA for individual operators but are not published in 14 CFR Part 97 for public use.

(See ICAO term INSTRUMENT APPROACH PROCEDURE.)

INSTRUMENT APPROACH PROCEDURE [ICAO]– A series of predetermined maneuvers by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en route obstacle clearance criteria apply.

(See ICAO term INSTRUMENT APPROACH OPERATIONS)

INSTRUMENT APPROACH PROCEDURE CHARTS–

(See AERONAUTICAL CHART.)

INSTRUMENT DEPARTURE PROCEDURE (DP)– A preplanned instrument flight rule (IFR) departure procedure published for pilot use, in graphic or textual format, that provides obstruction clearance from the terminal area to the appropriate en route structure. There are two types of DP, Obstacle Departure Procedure (ODP), printed either textually or graphically, and, Standard Instrument Departure (SID), which is always printed graphically.

(See IFR TAKEOFF MINIMUMS AND DEPARTURE PROCEDURES.)
(See OBSTACLE DEPARTURE PROCEDURES.)
(See STANDARD INSTRUMENT DEPARTURES.)
(Refer to AIM.)

INSTRUMENT DEPARTURE PROCEDURE (DP) CHARTS–

(See AERONAUTICAL CHART.)

INSTRUMENT FLIGHT RULES (IFR)– Rules governing the procedures for conducting instrument flight. Also a term used by pilots and controllers to indicate type of flight plan.

(See INSTRUMENT METEOROLOGICAL CONDITIONS.)
(See VISUAL FLIGHT RULES.)
(See VISUAL METEOROLOGICAL CONDITIONS.)
(See ICAO term INSTRUMENT FLIGHT RULES.)
(Refer to AIM.)

INSTRUMENT FLIGHT RULES [ICAO]– A set of rules governing the conduct of flight under instrument meteorological conditions.

INSTRUMENT LANDING SYSTEM (ILS)– A precision instrument approach system which normally consists of the following electronic components and visual aids:

a. Localizer.
(See LOCALIZER.)

b. Glideslope.
(See GLIDESLOPE.)

c. Outer Marker.
(See OUTER MARKER.)

d. Middle Marker.
(See MIDDLE MARKER.)

e. Approach Lights.
(See AIRPORT LIGHTING.)
(Refer to 14 CFR Part 91.)
(Refer to AIM.)

INSTRUMENT METEOROLOGICAL CONDITIONS (IMC)– Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling less than the minima specified for visual meteorological conditions.

(See INSTRUMENT FLIGHT RULES.)
(See VISUAL FLIGHT RULES.)
(See VISUAL METEOROLOGICAL CONDITIONS.)

INSTRUMENT RUNWAY– A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved.

(See ICAO term INSTRUMENT RUNWAY.)

INSTRUMENT RUNWAY [ICAO]– One of the following types of runways intended for the operation of aircraft using instrument approach procedures:

a. Nonprecision Approach Runway– An instrument runway served by visual aids and a nonvisual aid providing at least directional guidance adequate for a straight-in approach.

b. Precision Approach Runway, Category I– An instrument runway served by ILS and visual aids intended for operations down to 60 m (200 feet) decision height and down to an RVR of the order of 800 m.

c. Precision Approach Runway, Category II– An instrument runway served by ILS and visual aids intended for operations down to 30 m (100 feet) decision height and down to an RVR of the order of 400 m.

d. Precision Approach Runway, Category III– An instrument runway served by ILS to and along the surface of the runway and:

1. Intended for operations down to an RVR of the order of 200 m (no decision height being applicable) using visual aids during the final phase of landing;

2. Intended for operations down to an RVR of the order of 50 m (no decision height being applicable) using visual aids for taxiing;

3. Intended for operations without reliance on visual reference for landing or taxiing.

Note 1: See Annex 10 Volume I, Part I, Chapter 3, for related ILS specifications.

Note 2: Visual aids need not necessarily be matched to the scale of nonvisual aids provided. The criterion for the selection of visual aids is the conditions in which operations are intended to be conducted.

INTEGRITY– The ability of a system to provide timely warnings to users when the system should not be used for navigation.

INTERMEDIATE APPROACH SEGMENT–

(See SEGMENTS OF AN INSTRUMENT APPROACH PROCEDURE.)

INTERMEDIATE APPROACH SEGMENT [ICAO]– That segment of an instrument approach procedure between either the intermediate approach fix and the final approach fix or point, or between the end of a reversal, race track or dead reckoning track procedure and the final approach fix or point, as appropriate.

INTERMEDIATE FIX– The fix that identifies the beginning of the intermediate approach segment of an instrument approach procedure. The fix is not normally identified on the instrument approach chart as an intermediate fix (IF).

(See SEGMENTS OF AN INSTRUMENT APPROACH PROCEDURE.)

INTERMEDIATE LANDING– On the rare occasion that this option is requested, it should be approved. The departure center, however, must advise the ATCSCC so that the appropriate delay is carried over and assigned at the intermediate airport. An intermediate landing airport within the arrival center will not be accepted without coordination with and the approval of the ATCSCC.

INTERNATIONAL AIRPORT– Relating to international flight, it means:

a. An airport of entry which has been designated by the Secretary of Treasury or Commissioner of Customs as an international airport for customs service.

b. A landing rights airport at which specific permission to land must be obtained from customs authorities in advance of contemplated use.

c. Airports designated under the Convention on International Civil Aviation as an airport for use by international commercial air transport and/or international general aviation.

(See ICAO term INTERNATIONAL AIRPORT.)
(Refer to Chart Supplement U.S.)

INTERNATIONAL AIRPORT [ICAO]– Any airport designated by the Contracting State in whose territory it is situated as an airport of entry and departure for international air traffic, where the formalities incident to customs, immigration, public health, animal and plant quarantine and similar procedures are carried out.

INTERNATIONAL CIVIL AVIATION ORGANIZATION [ICAO]– A specialized agency of the United Nations whose objective is to develop the principles and techniques of international air navigation and to foster planning and development of international civil air transport.

INTERROGATOR– The ground-based surveillance radar beacon transmitter-receiver, which normally scans in synchronism with a primary radar,

transmitting discrete radio signals which repetitiously request all transponders on the mode being used to reply. The replies received are mixed with the primary radar returns and displayed on the same plan position indicator (radar scope). Also, applied to the airborne element of the TACAN/DME system.

(See TRANSPONDER.)

(Refer to AIM.)

INTERSECTING RUNWAYS– Two or more runways which cross or meet within their lengths.

(See INTERSECTION.)

INTERSECTION–

a. A point defined by any combination of courses, radials, or bearings of two or more navigational aids.

b. Used to describe the point where two runways, a runway and a taxiway, or two taxiways cross or meet.

INTERSECTION DEPARTURE– A departure from any runway intersection except the end of the runway.

(See INTERSECTION.)

INTERSECTION TAKEOFF–

(See INTERSECTION DEPARTURE.)

IR–

(See IFR MILITARY TRAINING ROUTES.)

IRREGULAR SURFACE– A surface that is open for use but not per regulations.

ISR–

(See INCREASED SEPARATION REQUIRED.)

a. Nonradar Approach. Used to describe instrument approaches for which course guidance on final approach is not provided by ground-based precision or surveillance radar. Radar vectors to the final approach course may or may not be provided by ATC. Examples of nonradar approaches are VOR, NDB, TACAN, ILS, RNAV, and GLS approaches.

(See FINAL APPROACH COURSE.)

(See FINAL APPROACH-IFR.)

(See INSTRUMENT APPROACH PROCEDURE.)

(See RADAR APPROACH.)

b. Nonradar Approach Control. An ATC facility providing approach control service without the use of radar.

(See APPROACH CONTROL FACILITY.)

(See APPROACH CONTROL SERVICE.)

c. Nonradar Arrival. An aircraft arriving at an airport without radar service or at an airport served by a radar facility and radar contact has not been established or has been terminated due to a lack of radar service to the airport.

(See RADAR ARRIVAL.)

(See RADAR SERVICE.)

d. Nonradar Route. A flight path or route over which the pilot is performing his/her own navigation. The pilot may be receiving radar separation, radar monitoring, or other ATC services while on a nonradar route.

(See RADAR ROUTE.)

e. Nonradar Separation. The spacing of aircraft in accordance with established minima without the use of radar; e.g., vertical, lateral, or longitudinal separation.

(See RADAR SEPARATION.)

NON−RESTRICTIVE ROUTING (NRR)− Portions of a proposed route of flight where a user can flight plan the most advantageous flight path with no requirement to make reference to ground−based NAVAIDs.

NOPAC−

(See NORTH PACIFIC.)

NORDO (No Radio)− Aircraft that cannot or do not communicate by radio when radio communication is required are referred to as "NORDO."

(See LOST COMMUNICATIONS.)

NORMAL OPERATING ZONE (NOZ)− The NOZ is the operating zone within which aircraft flight remains during normal independent simultaneous parallel ILS approaches.

NORTH AMERICAN ROUTE− A numerically coded route preplanned over existing airway and route systems to and from specific coastal fixes serving the North Atlantic. North American Routes consist of the following:

a. Common Route/Portion. That segment of a North American Route between the inland navigation facility and the coastal fix.

b. Noncommon Route/Portion. That segment of a North American Route between the inland navigation facility and a designated North American terminal.

c. Inland Navigation Facility. A navigation aid on a North American Route at which the common route and/or the noncommon route begins or ends.

d. Coastal Fix. A navigation aid or intersection where an aircraft transitions between the domestic route structure and the oceanic route structure.

NORTH AMERICAN ROUTE PROGRAM (NRP)− The NRP is a set of rules and procedures which are designed to increase the flexibility of user flight planning within published guidelines.

NORTH ATLANTIC HIGH LEVEL AIRSPACE (NAT HLA)− That volume of airspace (as defined in ICAO Document 7030) between FL 285 and FL 420 within the Oceanic Control Areas of Bodo Oceanic, Gander Oceanic, New York Oceanic East, Reykjavik, Santa Maria, and Shanwick, excluding the Shannon and Brest Ocean Transition Areas. ICAO Doc 007 *North Atlantic Operations and Airspace Manual* provides detailed information on related aircraft and operational requirements.

NORTH MARK− A beacon data block sent by the host computer to be displayed by the ARTS on a 360 degree bearing at a locally selected radar azimuth and distance. The North Mark is used to ensure correct range/azimuth orientation during periods of CENRAP.

NORTH PACIFIC− An organized route system between the Alaskan west coast and Japan.

NOT STANDARD− Varying from what is expected or published. For use in NOTAMs only.

NOT STD-

(See NOT STANDARD.)

NOTAM–

(See NOTICE TO AIRMEN.)

NOTAM [ICAO]– A notice containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

a. I Distribution– Distribution by means of telecommunication.

b. II Distribution– Distribution by means other than telecommunications.

NOTICE TO AIRMEN (NOTAM)– A notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, or procedure of, or hazard in the National Airspace System) the timely knowledge of which is essential to personnel concerned with flight operations.

NOTAM(D)– A NOTAM given (in addition to local dissemination) distant dissemination beyond the area of responsibility of the Flight Service Station. These NOTAMs will be stored and available until canceled.

c. FDC NOTAM– A NOTAM regulatory in nature, transmitted by USNOF and given system wide dissemination.

(See ICAO term NOTAM.)

NOTICES TO AIRMEN PUBLICATION– A publication issued every 28 days, designed primarily for the pilot, which contains NOTAMs, graphic notices, and other information considered essential to the safety of flight as well as supplemental data to other aeronautical publications. The contraction NTAP is used in NOTAM text.

(See NOTICE TO AIRMEN.)

NRR–

(See NON–RESTRICTIVE ROUTING.)

NRS–

(See NAVIGATION REFERENCE SYSTEM.)

NTAP–

(See NOTICES TO AIRMEN PUBLICATION.)

NUMEROUS TARGETS VICINITY (LOCATION)– A traffic advisory issued by ATC to advise pilots that targets on the radar scope are too numerous to issue individually.

(See TRAFFIC ADVISORIES.)

U

UHF–

(See ULTRAHIGH FREQUENCY.)

ULTRAHIGH FREQUENCY (UHF)– The frequency band between 300 and 3,000 MHz. The bank of radio frequencies used for military air/ground voice communications. In some instances this may go as low as 225 MHz and still be referred to as UHF.

ULTRALIGHT VEHICLE– A single-occupant aeronautical vehicle operated for sport or recreational purposes which does not require FAA registration, an airworthiness certificate, or pilot certification. Operation of an ultralight vehicle in certain airspace requires authorization from ATC.

(Refer to 14 CFR Part 103.)

UNABLE– Indicates inability to comply with a specific instruction, request, or clearance.

UNASSOCIATED– A radar target that does not display a data block with flight identification and altitude information.

(See ASSOCIATED.)

UNCONTROLLED AIRSPACE– Airspace in which aircraft are not subject to controlled airspace (Class A, B, C, D, or E) separation criteria.

UNDER THE HOOD– Indicates that the pilot is using a hood to restrict visibility outside the cockpit while simulating instrument flight. An appropriately rated pilot is required in the other control seat while this operation is being conducted.

(Refer to 14 CFR Part 91.)

UNFROZEN– The Scheduled Time of Arrival (STA) tags, which are still being rescheduled by the time based flow management (TBFM) calculations. The aircraft will remain unfrozen until the time the corresponding estimated time of arrival (ETA) tag passes the preset freeze horizon for that aircraft's stream class. At this point the automatic rescheduling will stop, and the STA becomes "frozen."

UNICOM– A nongovernment communication facility which may provide airport information at certain airports. Locations and frequencies of UNICOMs are shown on aeronautical charts and publications.

(See CHART SUPPLEMENT U.S.)

(Refer to AIM.)

UNMANNED AIRCRAFT (UA)- A device used or intended to be used for flight that has no onboard pilot. This device can be any type of airplane, helicopter, airship, or powered-lift aircraft. Unmanned free balloons, moored balloons, tethered aircraft, gliders, and unmanned rockets are not considered to be a UA.

UNMANNED AIRCRAFT SYSTEM (UAS)- An unmanned aircraft and its associated elements related to safe operations, which may include control stations (ground, ship, or air based), control links, support equipment, payloads, flight termination systems, and launch/recovery equipment. It consists of three elements: unmanned aircraft, control station, and data link.

UNPUBLISHED ROUTE– A route for which no minimum altitude is published or charted for pilot use. It may include a direct route between NAVAIDs, a radial, a radar vector, or a final approach course beyond the segments of an instrument approach procedure.

(See PUBLISHED ROUTE.)

(See ROUTE.)

UNRELIABLE (GPS/WAAS)– An advisory to pilots indicating the expected level of service of the GPS and/or WAAS may not be available. Pilots must then determine the adequacy of the signal for desired use.

UPWIND LEG–

(See TRAFFIC PATTERN.)

URGENCY– A condition of being concerned about safety and of requiring timely but not immediate assistance; a potential distress condition.

(See ICAO term URGENCY.)

URGENCY [ICAO]– A condition concerning the safety of an aircraft or other vehicle, or of person on board or in sight, but which does not require immediate assistance.

USAFIB–

(See ARMY AVIATION FLIGHT INFORMATION BULLETIN.)

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BRIEFING GUIDE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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

Table of Contents

1. PARAGRAPH NUMBER AND TITLE:
2−1−1. TYPES OF BROADCASTS
2−1−3. REDUCING RECORDED WEATHER INFORMATION SERVICES
2−3−1. GENERAL

2. BACKGROUND: Flight Service has provided Telephone Information Briefings Service (TIBS) since the early 1980s. Telephone recordings were produced by Flight Service specialists working the Broadcast position in order to provide weather and aeronautical information that pilots could access without contacting a specialist. The recordings were tailored to fit the needs of an individual facility and its geographic location, and updated as necessary. When these broadcasts were originally conceived there was a large demand for briefings from a specialist and wait times could be extremely long.

At the time, when pilots had no other choice but to call Flight Service to obtain weather and NOTAMs for the route of flight, TIBS alleviated the workload of the specialists and helped to reduce wait times for pilots. However, with the advent of the internet and other technology, the demand for the services of a Flight Service specialist has dropped considerably. From over 3,000 specialists in more than 300 facilities during the early 1980s, staffing has decreased to fewer than 500 specialists in three facilities. Pilots no longer need to "call" a Flight Service specialist or listen to telephone recordings of route and area briefings containing aviation weather and aeronautical information to adhere to 14 CFR 91.103. Currently, in the contiguous United States, Hawaii, and Puerto Rico there are multiple sources providing pilots access to weather and aeronautical information. This information, presented in a graphical format, makes it easier to visualize activity along their proposed route of flight; at little to no cost. This change does not apply in Alaska due to terrain features, weather conditions, and accessibility limitations.

3. CHANGE:

OLD	NEW
2−1−1. TYPES OF BROADCASTS	**2−1−1. TYPES OF BROADCASTS**
Weather and flight information must be broadcast/recorded by one or more of the following categories:	No Change
a. Transcribed Weather Broadcast (TWEB). (Alaska only.)	No Change
b. Telephone Information Briefing Service (TIBS).	**b.** Telephone Information Briefing Service (TIBS). **(Alaska only.)**
c. Hazardous Inflight Weather Advisory Service (HIWAS).	No Change
d. Automatic Flight Information Service (AFIS). (Alaska only.)	No Change

OLD	NEW
2−1−3. REDUCING RECORDED WEATHER INFORMATION SERVICES	**2−1−3. REDUCING RECORDED WEATHER INFORMATION SERVICES**

Recorded weather information services (TWEB and TIBS) may be reduced during the hours of 1800–0600 local time only. Adjust full broadcast service times to coincide with daylight hours. When a broadcast period is reduced, record the time the broadcast will be resumed, and advise users to contact flight service for weather briefings and other services.	Recorded weather information services **in Alaska** (TWEB and TIBS) may be reduced during the hours of 1800–0600 local time only. Adjust full broadcast service times to coincide with daylight hours. When a broadcast period is reduced, record the time the broadcast will be resumed, and advise users to contact flight service for weather briefings and other services.
PHRASEOLOGY– *THE TIBS RECORDING IS SUSPENDED. REGULAR RECORDED WEATHER SERVICE WILL BE RESUMED AT (time) ZULU/ (time) LOCAL. FOR PILOT WEATHER BRIEFINGS AND OTHER SERVICES, CONTACT FLIGHT SERVICE (phone number or additional telephone instructions, as appropriate).* *THE TWEB RECORDING IS SUSPENDED. REGULAR RECORDED WEATHER SERVICE WILL BE RESUMED AT (time) ZULU/ (time) LOCAL. FOR PILOT WEATHER BRIEFING AND OTHER SERVICES CONTACT FLIGHT SERVICE (frequency or phone number, as appropriate)*	No Change

OLD	NEW
2–3–1. GENERAL	**2–3–1. GENERAL**
Title through **c**	No Change
EXAMPLE– *11 Northeast Michigan* *12 Southeast Michigan* *13 Southwest Michigan* *14 Northwest Michigan including the Upper Peninsula* *19 Aviation Events*	***EXAMPLE–*** ***11 Special Announcements*** ***12 Route FAI to GAL*** ***13 Route FAI to AKP*** ***14 Route FAI to FYU*** ***17 Current Weather – FAI–ANC*** ***18 Current Weather –Interior AK***.

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1. PARAGRAPH NUMBER AND TITLE: 3–2–1. CONDUCT OF STANDARD BRIEFING

2. BACKGROUND: To modernize the NAS, meet the needs of our stakeholders, and provide accurate NOTAM information, the FAA is removing Part 1 of the Notices to Airmen Publication (NTAP). This part contains amendments to FDC NOTAMs that pertain to IFR routes and procedures. The NTAP currently contains many inaccurate and outdated FDC NOTAMs as the publication cycle is 28 days and many NOTAMs are cancelled mid–cycle. This conflict causes safety concerns for pilots. The most current and up–to–date information on NOTAMs is contained in the FAA's official NOTAM Search website (https://notams.aim.faa.gov/notamSearch/) or through an approved Flight Service web portal. Pilots should obtain preflight IFR route and amendment FDC NOTAM information via the NOTAM Search website, an approved Flight Service web portal, or upon request by calling a Flight Service Station.

3. CHANGE:

OLD	NEW
3–2–1. CONDUCT OF STANDARD BRIEFING	**3–2–1. CONDUCT OF STANDARD BRIEFING**

Title through **c8(a)** ***NOTE***	No Change
(b) Flight Data Center (FDC) NOTAMs not already carried in the Notices to Airmen publication.	Delete
(c) Combine this element with adverse conditions when it would be logical and advantageous to do so.	**(b)** Combine this element with adverse conditions when it would be logical and advantageous to do so.
c9 through **c12(e)**	No Change
Add	**(f) FDC NOTAMs containing amendments to airways, airport, and facility IFR procedures and General Information.**
Add	***NOTE–*** ***General FDC NOTAMs include Chart amendments, Special Security Instructions, and Special Advisory Notices.***
Add	**(g) Information contained in the Notices to Airmen Publication to include Part 95 Revisions, International NOTAMs and Graphic Notices.**

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1. PARAGRAPH NUMBER AND TITLE: 4–3–7. ATC CLEARANCES, ADVISORIES, OR REQUESTS

2. BACKGROUND: Flight Service relays telephone clearances to pilots at airports that lack direct radio communications with air traffic control (ATC). Flight Service also relays cancellations of Instrument Flight Rules (IFR) flight plans from pilots to ATC.

Except in Alaska, this change will discontinue Flight Service telephone relay of IFR clearances from all ATC facilities and reduce the number of IFR flight plan cancellations handled by Flight Service.

Clearance Relay Part 1 formalized a process already in place by publishing phone numbers of approach control facilities in the Chart Supplement US. The initiative included 30 approach controls covering 667 airports, providing pilots direct contact with the controlling facility to obtain clearances and cancel IFR flight plans. Clearance Relay Part 2 enables pilots to obtain an IFR clearance and/or cancel IFR flight plans via telephone by calling either:

1. The overlying Air Route Traffic Control Center (ARTCC) Flight Data Units (FDUs), which will then relay the clearance from the appropriate sector, specialty or control facility to the pilot,

Or

2. An approach control facility with clearance delivery phone numbers published in the Chart Supplement US.

Pilots may continue to request clearances via radio from ATC or Leidos Flight Service (formerly Lockheed Martin). The plan does not affect pilots requesting clearances from locations in Alaska.

Flight Service will continue to relay clearances to pilots via telephone until these phone numbers are published.

Once published, Flight Service will provide pilots with either the name of the facility to contact or the correct phone number to obtain a clearance. In addition, Flight Service will continue to provide priority handling for MedEvac/Life Flights.

3. CHANGE:

OLD	NEW
4–3–7. ATC CLEARANCES, ADVISORIES, OR REQUESTS	**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. Forward pilot requests to execute the Visual Climb Over Airport (VCOA) procedure to ATC. 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.	No Change
NOTE– *For ATC clearances, "verbatim" means exact control instructions in the format stated in FAA Order JO 7110.65, Air Traffic Control, Chapter 4, Section 2, Clearances, and Section 3, Departure Procedures.*	No Change
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).*	***PHRASEOLOGY–*** *Aircraft on the ground:* ***(ARTCC facility's name) Center FLIGHT DATA, CLEARANCE REQUEST*** ***or*** *(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).*

1. PARAGRAPH NUMBER AND TITLE:
7−1−1. GENERAL
7−2−1. FLIGHT PLAN/CUSTOMS REQUIREMENTS
7−2−2. INBOUND AIRCRAFT: CUSTOMS REQUIREMENTS
7−2−3. INBOUND AIRCRAFT: ADIZ REQUIREMENTS
7−4−1. GENERAL
7−4−2. INBOUNDS FROM CANADA
7−4−3. OUTBOUNDS TO CANADA
7−4−4. OUTBOUNDS TO CANADA DEPARTING FROM OUTSIDE FLIGHT PLAN AREA
7−5−1. GENERAL
7−5−2. INBOUNDS FROM MEXICO
7−5−3. OUTBOUNDS TO MEXICO

2. BACKGROUND: In 2008, U.S. customs notification requirements for private pilots changed substantially when U.S. Customs and Border Patrol (CBP) implemented regulations contained in 19 CFR 122. Of these changes, several are especially salient: One, private pilots must coordinate their passenger manifest directly with CBP to comply with Advance Passenger Information System (APIS) requirements a minimum of 24−hours in advance of their departure, Two, before, customs notification requirements only applied to flights inbound to the U.S.; APIS requirements now apply to both inbound and outbound flights; Three, pilots are now required to get a decal from CBP to fly inbound or outbound, the decal number is a required element in the APIS manifest; Four, the use of advise customs (ADCUS) in remarks conflicts with CBP requirements in 19 CFR 122 and is now obsolete. Five, APIS requirements apply to flights to and from Canada and Mexico. There are no longer alternative U.S. customs notification procedures for either country.

3. CHANGE:

OLD	**NEW**
7−1−1. GENERAL	**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 ADIZ penetration requirements are listed in other publications; for example, the FAA International Flight Information Manual (IFIM), the Bureau of Customs and Border Protection Guide for Private Flyers, the Aeronautical Information Manual (AIM), Aeronautical Information Publication (AIP), 14 CFR Part 91, and 14 CFR Part 99. Landing Rights Airports (LRA) and Airports of Entry (AOE) are listed in the Chart Supplement U.S.	**a. Title 19 of the U.S. Code of Federal Regulations (CFR), Part 122 contains Advance Passenger Information System (APIS) regulations, which require APIS manifests to be submitted to U.S. Customs and Border Protection (CBP) for all private aircraft arriving from or departing for a foreign port or place. APIS regulations also require that electronic notices of arrival and departure as well as electronic manifests relative to travelers (passengers and crew) be submitted to CBP within specific timeframes. For detailed information on the APIS regulations, see Advance Information on Private Aircraft Arriving and Departing the United States, 73 Fed. Reg. 68,295 (Nov. 18, 2008) (19 CFR 122.22). This publication, along with other resources, is available at http://www.cbp.gov. In addition, 14 CFR and the International Civil Aviation Organization (ICAO) require flight plans for all civil aircraft operation between the United States and foreign locations. International flight plan information and ADIZ penetration requirements are listed in other publications; for example, the Aeronautical Information Manual (AIM), the Aeronautical Information Publication (AIP), 14 CFR Part 91, and 14 CFR Part 99.**
b through **d**	No Change
e. Use of FAA Form 7233−4 is mandatory for all IFR flights that will depart U.S. domestic airspace and enter international airspace. The filer is responsible for providing the information required in items 3 through 19.	**e.** Use of FAA Form 7233−4 is mandatory for all IFR flights that will depart U.S. **controlled** airspace and enter international airspace. The filer is responsible for providing the information required in items 3 through 19.
OLD	**NEW**
7−2−1. FLIGHT PLAN/CUSTOMS REQUIREMENTS	**7−2−1. FLIGHT PLAN/CUSTOMS REQUIREMENTS**
Specific flight plan, Customs, and other requirements of individual countries are listed in the FAA International Flight Information Manual, IFIM.	Delete

Add	**a. U.S. Customs and Border Protection (CBP) requirements for Advance Passenger Information System (APIS) authorizations are contained in 19 CFR 122 and apply to both inbound and outbound aircraft. Do not include ADCUS in flight plan remarks; pilots are required to coordinate directly with CBP.**
Add	**b. Flight plan and customs requirements for other countries are usually contained in that country's Aeronautical Information Publication (AIP).**

OLD	NEW
7–2–2. INBOUND AIRCRAFT: CUSTOMS REQUIREMENTS	**7–2–2. CUSTOMS REQUIREMENTS FOR INBOUND AND OUTBOUND AIRCRAFT**
a. All aircraft entering U.S. airspace from a foreign port must provide at least 1 hour advance notice to the U.S. Customs and Border Protection (CBP) at the point of first intended landing.	Delete
b. Aircraft arriving from the following location must furnish a notice of intended arrival to CBP at the nearest designated airport to point of crossing for the first landing in the U.S.	Delete
1. Via the U.S./Mexican border or the Pacific Coast from a foreign location in the Western Hemisphere south of 33 degrees north latitude.	Delete
2. From the Gulf of Mexico or the Atlantic Coasts from a place in the Western Hemisphere south of 30 degrees north latitude from any place in Mexico.	Delete
3. From the U.S. Virgin Islands.	Delete
4. From Puerto Rico, which if from Puerto Rico, are conducting VFR flight.	Delete
c. This notice must be given at least 1 hour before crossing the U.S. coastline or border. The advance notice of arrival must include the following:	Delete
1. Aircraft registration number.	Delete
2. Name of aircraft commander.	Delete
3. Number of U.S. citizen passengers.	Delete
4. Number of alien passengers.	Delete
5. Place of last departure.	Delete
6. Estimated time and location of crossing U.S. border/coastline.	Delete
7. Estimated time of arrival.	Delete
8. Name of intended U.S. airport of first landing.	Delete

d. The pilot may make any required notification directly to the CBP through the Electronic Advance Passenger Information System (eAPIS) at: https://eapis.cbp.dhs.gov/. Alternate methods may include telephone, radio, or other means, or may be furnished through the FAA to the CBP. Delete

REFERENCE–
U.S. Customs and Border Protection Guide for Private Flyers. Delete

e. When Customs flight notification service is requested, as indicated by inclusion of ADCUS in remarks, deliver the complete message to the associated CBP office as soon as practical. Relay additional or amended information to the CBP in order to properly comply with requirements; for example, when actual arrival time varies from ETA by more than 15 minutes. Delete

1. Provide the service only for those airports where availability is advertised in the AFD on flight notification messages. Pilots are responsible for making their own Customs arrangements for other airports. Delete

2. Notify only the CBP office which, in turn, is responsible for notifying other inspection agencies concerned. Delete

f. Prefiled Customs notification requests for flights returning to the U.S. must be delivered to the CBP office not earlier than 23 hours in advance. Delete

g. When an airborne aircraft identifies an airport of first intended landing that is not one of the designated airports, advise the pilot that this airport is not a designated airport of first landing. Delete

PHRASEOLOGY–
BE ADVISED THAT YOUR DESTINATION IS NOT A CUSTOMS AND BORDER PROTECTION DESIGNATED FIRST LANDING AIRPORT. WHAT ARE YOUR INTENTIONS? Delete

NOTE–
If a pilot insists on landing at a non−designated airport, pass this information to nearest Customs and Border Protection office. Delete

h. When a flight notification message containing ADCUS in remarks identifies a non−designated airport of first intended landing, notify the message originator to advise the pilot that the filed destination is not a designated airport. Delete

PHRASEOLOGY– *ADVISE (aircraft identification) THAT THE FILED DESTINATION IS NOT A CUSTOMS AND BORDER PROTECTION DESIGNATED FIRST LANDING AIRPORT.*	Delete
NOTE– *The FAA's role in this program is advisory only. Any appearance of action of enforcing compliance must be avoided. Any questions should be directed to the U.S. Customs and Border Protection.*	Delete
i. Record the time of receipt of Customs requests. This time will constitute evidence of the pilot's intention to comply with CBP, Immigration, and Public Health requirements and will be made available upon request from these authorities.	Delete
Add	**19 CFR Part 122 contains Advance Passenger Information System (APIS) regulations which require APIS manifests to be submitted to U.S. Customs and Border Protection (CBP) for all private aircraft arriving from or departing for a foreign port or place. APIS regulations also require that electronic notices of arrival and departure as well as electronic manifests relative to travelers (passengers and crew) be submitted to CBP within specific timeframes. For detailed information on the APIS regulations, see Advance Information on Private Aircraft Arriving and Departing the United States, 73 Fed. Reg. 68,295 (Nov. 18, 2008) (19 CFR 122.22). This publication, along with other resources, is available at http://www.cbp.gov.**
Add	**a. All aircraft entering U.S. airspace from a foreign port or departing U.S. airspace for a foreign port must provide at least 1 hour advance notice to the U.S. Customs and Border Protection (CBP) via the Electronic APIS (eAPIS).**
Add	**b. Pilots of aircraft inbound to the U.S. from a foreign port are required to notify CBP of any changes to their ETA which are 15 minutes or greater. Upon pilot request, relay changes in ETA to CBP.**

OLD	NEW
7–2–3. INBOUND AIRCRAFT: ADIZ REQUIREMENTS	**7–2–3. ADIZ REQUIREMENTS FOR INBOUND AND OUTBOUND AIRCRAFT**
Title through **b** ***NOTE***	No Change

c. Pilots of aircraft entering the United States through an ADIZ are required to comply with the provisions of 14 CFR Sections 99.17 and 99.19.	**c. A person who operates a civil aircraft into an ADIZ must have a functioning two–way radio, and the pilot must maintain a continuous listening watch on the appropriate aeronautical facility's frequency.**
Add	**d. Pilots of aircraft entering or departing the United States through an ADIZ, or operating within an ADIZ, are required to comply with the provisions of 14 CFR 99.**
d. Forward information on DVFR aircraft inbound to the U.S. to NORAD via Service B or by telephone. Forward the following information:	**e.** Forward information on DVFR aircraft inbound to the U.S. to NORAD via Service B or by telephone. Forward the following information:
d1 through **d9** ***EXAMPLE***	No Change
NOTE– ***1.*** *See para 6–3–3, IFR Flight Plan Control Messages.* ***2.*** *Further information on ADIZ requirements is contained in 14 CFR Part 99.*	***NOTE–*** *See para 6–3–3, IFR Flight Plan Control Messages.*

OLD	NEW
7–4–1. GENERAL	**7–4–1. GENERAL**
Except as indicated in this section, handle Transborder Canadian movement and control messages as described in Sections 1, 2, and 3. Do not include ADCUS in flight plan remarks because NAV CANADA no longer alerts Canadian Customs. CANPASS authorizations are the obligation of the pilot, at the number in subpara 7–4–3a.	Except as indicated in this section, handle Transborder Canadian movement and control messages as described in Sections 1, 2, and 3. Do not include ADCUS in flight plan remarks **for flight plans to Canada** because NAV CANADA no longer alerts Canadian Customs. CANPASS authorizations are the obligation of the pilot, at the number in subpara 7–4–3a. **Do not include ADCUS in flight plan remarks for flights plans from Canada to the United States because U.S. flight service no longer alerts U.S. Customs and Border Patrol (CBP). U.S. Advance Passenger Information System (APIS) authorizations are the obligation of the pilot for flights departing and entering the U.S., as stated in 19 CFR 122. APIS resources for pilots are available at http://www.cbp.gov.**

OLD	NEW
7–4–2. INBOUNDS FROM CANADA	**7–4–2. INBOUNDS FROM CANADA**

a. Do not accept VFR flight plans other than air filed flight plans for aircraft departing from Canada. Refer individuals to the appropriate NAVCANADA facility to file flight plans out of Canada. Do not accept round−robin flight plans to international locations, other than Canada.

b. The operational system should automatically format the required items of the flight notification message when activated. Deliver VFR and IFR ADCUS to the CBP. File IFR messages after delivery.

No Change

b. The operational system should automatically format the required items of the flight notification message when activated. **U.S. CBP authorizations for flights inbound to the U.S. from Canada are the obligation of the pilot and must be obtained via the APIS process. APIS resources for pilots are available at http://www.cbp.gov.**

OLD

7−4−3. OUTBOUNDS TO CANADA

a. When Customs notification service is requested advise the pilot to contact Canada's Private Aircraft Program for Customs (CANPASS) at 888−226−7277 and include CANPASS in the remarks section of the flight plan. If the pilot informs that he/she has contacted CANPASS, place CANPASS in the remarks section of the flight plan. Process outbound flight plans in accordance with Chapter 6 and subparas 7−4−3d and e.

Add

NEW

7−4−3. OUTBOUNDS TO CANADA

No Change

NOTE−
U.S. CBP authorizations for flights outbound from the U.S. to Canada are the obligation of the pilot and must be obtained via the APIS process. APIS resources for pilots are available at http://www.cbp.gov.

OLD

7−4−4. OUTBOUNDS TO CANADA DEPARTING FROM OUTSIDE FLIGHT PLAN AREA

Title through **a6** ***EXAMPLE***

Add

NEW

7−4−4. OUTBOUNDS TO CANADA DEPARTING FROM OUTSIDE FLIGHT PLAN AREA

No Change

NOTE−
U.S. CBP authorizations for flights outbound from the U.S. to Canada are the obligation of the pilot and must be obtained via the APIS process. APIS resources for pilots are available at http://www.cbp.gov.

OLD

7−5−1. GENERAL

NEW

7−5−1. GENERAL

Except as outlined in this section, handle transborder Mexican movement and control messages as described in Sections 1, 2, and 3. IFR flight plans to Mexico require the ICAO flight plan form.

Add

a. Except as outlined in this section, handle transborder Mexican movement and control messages as described in Sections 1, 2, and 3. IFR flight plans to Mexico require the ICAO flight plan form.

b. Do not include ADCUS in flight plan remarks for flight plans to Mexico; Mexican Customs authorizations are the obligation of the pilot. Do not include ADCUS in flight plan remarks for flights plans from Mexico to the United States because U.S. flight service no longer alerts U.S Customs and Border Patrol (CBP). U.S. APIS authorizations are the obligation of the pilot for flights departing and entering the U.S., as stated in 19 CFR 122. APIS resources for pilots are available at http://www.cbp.gov.

OLD

7–5–2. INBOUNDS FROM MEXICO

a. Flight notification messages.

1. When received in the proper format, VFR flight notification messages are automatically acknowledged and suspended by the operational system. Deliver VFR and IFR ADCUS messages to CBP. Store IFR ADCUS messages in the history file, as appropriate.

2. Acknowledge receipt of a flight notification message as soon as practical by transmitting the letter R followed by the full ACID; e.g., R N7llVR. Deliver VFR and IFR ADCUS messages to CBP. Suspense VFR flight notification messages until arrival or closure information is received. File IFR messages. Remove IFR inbounds from Mexico from the inbound list once ADCUS message is delivered to CBP.

NEW

7–5–2. INBOUNDS FROM MEXICO

No Change

1. When received in the proper format, VFR flight notification messages are automatically acknowledged and suspended by the operational system.

2. Acknowledge receipt of a flight notification message as soon as practical by transmitting the letter R followed by the full ACID; e.g., R N7llVR. Suspense VFR flight notification messages until arrival or closure information is received. File IFR messages.

OLD

7–5–3. OUTBOUNDS TO MEXICO

a. When customs notification service is requested for an airport–of–entry, include ADCUS, the number of persons on board, and the pilot's name in the remarks section of the flight plan.

a *NOTE* through **a2 *NOTE***

NEW

7–5–3. OUTBOUNDS TO MEXICO

a. Mexican customs notification is the obligation of the pilot. U.S. CBP authorizations for flights outbound from the U.S. to Mexico are also the obligation of the pilot and must be obtained via the APIS process. APIS resources for pilots are available at http://www.cbp.gov.

No Change

b. When a pilot files an IFR flight plan and customs notification service is requested for an airport–of–entry, include ADCUS and the information listed in subpara 7–5–3a. Transmit to the appropriate ARTCC.	Delete
NOTE– *Mexico requires notification of an inbound aircraft before its arrival. The inclusion of ADCUS in the remarks section of an IFR flight plan or flight notification message satisfies this requirement.*	Delete
c. VFR Flight Plans.	**b.** VFR Flight Plans.
1. Upon notification of departure of VFR flights, transmit a flight notification message. When Customs notification service is requested for an airport–of–entry include ADCUS and the information listed in subpara 7–5–3a. Address messages to the ICAO addressee for the appropriate destination location.	**1.** Upon notification of departure of VFR flights, transmit a flight notification message. Address messages to the ICAO addressee for the appropriate destination location.
c2 through **c3(g)**	No Change
EXAMPLE– *FF MMCUXMXO* *DTG KSJTYFYX* *VFR N1234S C182 SJT MMCU 1400 $ADCUS* *4ZUCHERMANN*	***EXAMPLE–*** *FF MMCUXMXO* *DTG KSJTYFYX* *VFR N1234S C182 SJT MMCU 1400* *4ZUCHERMANN*

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1. PARAGRAPH NUMBER AND TITLE:
8–2–1. COMMUNICATIONS SEARCH
8–2–2. QALQ
8–3–1. INREQ
8–4–1 ALNOT

2. BACKGROUND: Emerging technologies within communications, personal computing, and mobile devices provide the ability to deliver flight service capabilities more efficiently to stakeholders. The use of these technologies over more antiquated methods is reflected by user preference and demand, which shows a continuing decline in human–assisted services as users take advantage of automated and enhanced technologies which are available through the FAA and private sector. Therefore, effective May 16, 2018, Flight Service discontinued the Direct Users Access Terminal System (DUATS) II Program. Internet services, including access to weather and aeronautical information, flight plan filing and automated services will remain available at no charge to pilots at www.1800wxbrief.com.

3. CHANGE:

OLD	NEW
8–2–1. COMMUNICATION SEARCH	**8–2–1. COMMUNICATION SEARCH**
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 initiate a communications search to locate the aircraft by checking the following:	No Change

1. Destination airport	**1.** Destination airport**.**
2. Flight plan phone number, if available	**2.** Flight plan phone number, if available**.**
3. BASOPS, if applicable	**3.** BASOPS, if applicable**.**
4. Customs, if applicable	**4.** Customs, if applicable**.**
5. ATC facilities as applicable	**5.** ATC facilities as applicable**.**
6. DUAT vendor, if applicable	Delete

OLD	NEW
8–2–2. QALQ	**8–2–2. QALQ**
a. If the communications search does not locate the aircraft, and the flight plan is not held by the destination station, transmit a QALQ to the facility/sector that holds the flight plan.	No Change
Possible Flight Plan Originators:	No Change
KxxxYFYX . . Flight Service Station/Sector	No Change
KxxxYXYX . . Military BASOPS	No Change
KIADXCLX or KMIVXDTC . DUAT Vendors	Delete
KAISXCLX . . AISR	No Change
NOTE– *QALQ is used to solicit information that is not accessible. If the flight plan information is already available to the destination tie–in facility/sector, QALQ is not required."*	***NOTE–*** *QALQ is used to solicit information that is not accessible. If the flight plan information is already available to the destination tie–in facility/sector, QALQ is not required.*

OLD	NEW
8–3–1. INREQ	**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, whichever occurs first:	No Change
a. The destination tie–in facility/sector must transmit a numbered INREQ message addressed to:	No Change
1. Flight plan originator (if other than DUATS or AISR)	**1.** Flight plan originator (if other than AISR)**.**
2. En route FSS as applicable	**2.** En route FSS as applicable**.**
3. KSARYCYX (includes RCC, AISR, and DUAT vendors)	**3.** KSARYCYX (includes RCC **and** AISR)**.**
4. En route ARTCCs as applicable	**4.** En route ARTCCs as applicable**.**
5. BASOPS if destination or departure tie–in facility	**5.** BASOPS if destination or departure tie–in facility**.**
6. Other addresses the specialist deems beneficial to the search.	No Change

OLD	NEW
8–4–1. ALNOT	**8–4–1. ALNOT**
a. If the replies to the INREQ are negative, or if the aircraft is not located within 1 hour after transmission of the INREQ, whichever occurs first, the destination station must transmit an ALNOT addressed to:	No Change
1. Flight Plan Originator (If other than DUATS or AISR)	**1.** Flight Plan Originator (If other than AISR)**.**
2. KSARYCYX (Includes RCC, AISR and DUAT vendors).	**2.** KSARYCYX (Includes RCC **and** AISR).
3. KxxxYAYX (appropriate Regional Operations Center (ROC))	**3.** KxxxYAYX (appropriate Regional Operations Center (ROC))**.**
4. Add ARTCCs 50NM either side of route	**4.** Add ARTCCs 50NM either side of route**.**
5. BASOPS if destination or departure tie–in facility, or the home base of the aircraft	**5.** BASOPS if destination or departure tie–in facility, or the home base of the aircraft**.**
6. Other addresses deemed beneficial to the search by the specialist	**6.** Other addresses deemed beneficial to the search by the specialist**.**

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1. PARAGRAPH NUMBER AND TITLE:
9–2–3. RESPONSIBILITY
9–2–5. SOLICITING PIREPS
9–2–14. PIREP FORMATTING

2. BACKGROUND: A National Transportation Safety Board Special Investigation Report recommended that the Federal Aviation Administration (FAA) revise FAA Order JO 7110.10 to ensure that the chapter relating to pilot weather reports (PIREPs) include improved and consistent guidance about PIREP coding, handling, solicitation, and dissemination. Additionally, the FAA included PIREPs in the ATO's Top 5 highest–risk safety issues. A Corrective Action Plan (CAP) was formulated to mitigate PIREP related concerns. These changes are a result of the CAP.

3. CHANGE:

OLD	NEW
9–2–3. RESPONSIBILITY	**9–2–3. RESPONSIBILITY**
FSS specialists must actively solicit PIREPs in conjunction with preflight and inflight communications with pilots and assure timely dissemination of the PIREP information. Each facility should make special efforts to obtain PIREPs on departure and arrival weather conditions at airports within their flight plan area.	**a.** FSS specialists must actively solicit PIREPs in conjunction with preflight and inflight communications with pilots and assure timely dissemination of the PIREP information.
Add	**1. Timely dissemination of PIREPs alert pilots to significant weather reports and improves aviation forecasts.**

Add	**2. Changing weather conditions should dictate increased frequency of PIREP solicitation.**
Add	**3. PIREPs indicating good weather are valuable and pertinent to aviation weather forecasters and pilots. These include PIREPs indicating a lack of icing or turbulence, and should be disseminated in a timely fashion.**
Add	**b. Each facility should make special efforts to solicit PIREPs on departure and arrival weather conditions at airports within their flight plan area.**

OLD	NEW
9–2–5. SOLICITING PIREPs	**9–2–5. SOLICITING PIREPs**
Title through **a6**	No Change
Add	**7. Braking action reports less than good.**
7. Volcanic eruption, ash clouds, and/or detection of sulfur gases: hydrogen sulfide (H_2S) or sulfur dioxide (SO_2) in the cabin.	**8.** Volcanic eruption, ash clouds, and/or detection of sulfur gases **in the cabin**: hydrogen sulfide (H_2S) or sulfur dioxide (SO_2).
(a) If only H_2S or SO_2 is reported, ask the pilot if volcanic ash clouds are in the vicinity.	**(a)** If only H_2S or SO_2 is reported **with no reported volcanic ash clouds**, ask the pilot if volcanic ash clouds are in the vicinity.

OLD	NEW
9–2–14. PIREP FORMAT	**9–2–14. PIREP FORMAT**
a thru **d** ***EXAMPLE***	No Change
e. /TP. Type aircraft. Enter aircraft type. If not known, enter UNKN. Icing and turbulence reports must always include the aircraft type.	**e.** /TP. Type aircraft. Enter aircraft type. **If** not known, enter UNKN. Icing and turbulence reports must always include the aircraft type. **Do not consolidate observations from numerous aircraft types into one PIREP.**
EXAMPLE– */TP AEST* */TP C150* */TP P28R* */TP UNKN*	No Change

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1. PARAGRAPH NUMBER AND TITLE:
9–5–2. AVIATION SURFACE FORECAST/ AVIATION CLOUD FORECAST/ AREA FORECAST (FA) SCHEDULE
9–5–3. AVIATION SURFACE FORECAST AND AVIATION CLOUD FORECAST ISSUANCE TIMES

2. BACKGROUND: The Area Forecast for the CONUS has been retired. The Aviation Surface Forecast and the Aviation Cloud Forecast are static graphical forecast images and are supplied by the Aviation Weather Center (AWC) via NOAAPORT and Static URLs (available via the internet) for en route forecast awareness.

3. CHANGE:

OLD

9–5–2. AVIATION SURFACE FORECAST/ AVIATION CLOUD FORECAST/ AREA FORECAST (FA) SCHEDULE

FAs are issued three times a day in the contiguous U.S., Alaska, and the Gulf of Mexico; and four times a day in Hawaii and the Caribbean. The issuance times are in TBL 9–5–2.

NEW

9–5–2. AREA FORECAST (FA) SCHEDULE

FAs are issued three times a day in Alaska and the Gulf of Mexico; and four times a day in Hawaii and the Caribbean. The issuance times are in TBL 9–5–2.

OLD

TBL 9–5–2

Aviation Surface Forecast/Aviation Cloud Forecast/Area Forecast (FA) Schedule

	Gulf of Mexico (UTC)	Caribbean (UTC)	Hawaii (UTC)	Alaska
1st Issuance	0130	0330	0430	0415 DT 0515 ST
2nd Issuance	1030	0930	0940	1215 DT 1315 ST
3rd Issuance	1830	1530	1540	2015 DT 2115 ST
4th Issuance		2130	2140	
Note: DT – Daylight Time, ST – Standard Time, UTC – Coordinated Universal Time				

NEW

TBL 9–5–2

Area Forecast (FA) Schedule

	Gulf of Mexico (UTC)	Caribbean (UTC)	Hawaii (UTC)	Alaska
1st Issuance	0130	0330	0430	0415 DT 0515 ST
2nd Issuance	1030	0930	0940	1215 DT 1315 ST
3rd Issuance	1830	1530	1540	2015 DT 2115 ST
4th Issuance		2130	2140	
Note: DT – Daylight Time, ST – Standard Time, UTC – Coordinated Universal Time				

OLD

9–5–3. AVIATION SURFACE FORECAST AND AVIATION CLOUD FORECAST ISSUANCE TIMES

NEW

9–5–3. AVIATION SURFACE FORECAST AND AVIATION CLOUD FORECAST ISSUANCE TIMES

Distribution of FAs is made by WMSCR in accordance with a predetermined list for each circuit based upon intra−circuit coordinated requirements.	Delete
a. The Aviation Surface Forecast and Aviation Cloud Forecast are issued 8 times a day and are composed of 6 snapshots that are valid for up to 18 hours. The images are based on forecast model run times of 00Z, 03Z, 06Z, 09Z, 12Z, 15Z, 18Z, and 21Z. The actual issuance time will be 1−2 hours after each model run. The delays are due to latency.	The Aviation Surface Forecast and Aviation Cloud Forecast are issued 8 times a day and are composed of 6 snapshots that are valid for up to 18 hours. The images are based on forecast model run times of 00Z, 03Z, 06Z, 09Z, 12Z, 15Z, 18Z, and 21Z. The actual issuance time will be 1−2 hours after each model run. The delays are due to latency.

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1. PARAGRAPH NUMBER AND TITLE: APPENDIX A. ICAO FLIGHT PLANS

2. BACKGROUND: To fulfill international agreements, and in accordance with International Civil Aviation Organization Annex 6, Annex 11, and Document 4444, the FAA implemented Performance Based Communication and Surveillance (PBCS) requirements and monitoring on March 29, 2018. To support this change, aircraft must file their equipment capabilities using ICAO aircraft communication, navigation, and approach equipment qualifiers. Most of these equipment qualifiers are already in use. However, the qualifiers to describe an aircraft's Required Communication Performance (RCP), also known as P−Codes, were not previously in use. Aircraft are required to file P−Codes in their flight plan in order to be eligible for reduced separation standards in the oceanic portions of their flights. This information has been included in the AIM and AIP.

3. CHANGE:

OLD	**NEW**
Appendix A. ICAO FLIGHT PLANS	**Appendix A. ICAO FLIGHT PLANS**
Title through **2.2 ITEM 10**	No Change
O . . . . . VOR P1–P9 Reserved for RCP	O . . . . . VOR
Add	**P1** . . . . . **CPDLC RCP 400 (*See Note 7*)**
Add	**P2** . . . . . **CPDLC RCP 240 (*See Note 7*)**
Add	**P3** . . . . . **SATVOICE RCP 400 (*See Note 7*)**
Add	**P4–P9** . . . . . **Reserved for RCP**
Any alphanumeric characters not indicated above are reserved.	No Change

NOTE– 1. *If the letter S is used, standard equipment is considered to be VHF RTF, VOR, and ILS, unless another combination is prescribed by the appropriate ATS authority.* 2. *If the letter G is used, the types of external GNSS augmentation, if any, are specified in Item 18 following the indicator NAV/ and separated by a space.* 3. *See RTCA/EUROCAE Interoperability Requirements Standard For ATN Baseline 1 (ATN B1 INTEROP Standard – DO–280B/ED–110B) for data link services air traffic control clearance and information/ air traffic control communications management/air traffic control microphone check.* 4. *If the letter R is used, the performance based navigation levels that can be met are specified in Item 18 following the indicator PBN/. Guidance material on the application of performance based navigation to a specific route segment, route or area is contained in the Performance–Based Navigation Manual (Doc 9613).* 5. *If the letter Z is used, specify in Item 18 the other equipment carried or other capabilities, preceded by COM/, NAV/ and/or DAT/, as appropriate.* 6. *Information on navigation capability is provided to ATC for clearance and routing purposes.*	***NOTE–*** 1. *If the letter S is used, standard equipment is considered to be VHF RTF, VOR, and ILS, unless another combination is prescribed by the appropriate ATS authority.* 2. *If the letter G is used, the types of external GNSS augmentation, if any, are specified in Item 18 following the indicator NAV/ and separated by a space.* 3. *See RTCA/EUROCAE Interoperability Requirements Standard For ATN Baseline 1 (ATN B1 INTEROP Standard – DO–280B/ED–110B) for data link services air traffic control clearance and information/ air traffic control communications management/air traffic control microphone check.* 4. *If the letter R is used, the performance based navigation levels that can be met are specified in Item 18 following the indicator PBN/. Guidance material on the application of performance based navigation to a specific route segment, route or area is contained in the Performance–Based Navigation Manual (Doc 9613).* 5. *If the letter Z is used, specify in Item 18 the other equipment carried or other capabilities, preceded by COM/, NAV/ and/or DAT/, as appropriate.* 6. *Information on navigation capability is provided to ATC for clearance and routing purposes.* ***7. Guidance material on the application of performance–based communication, which prescribes RCP to an air traffic service in a specific area, is contained in the Performance–based Communication and Surveillance (PBCS) Manual (Doc 9869).***
Surveillance equipment and capabilities through **ITEM 18 DAT/**	No Change
Add	**SUR/ .... When Required Surveillance Performance (RSP) Capability has been filed in SUR/, this can be conveyed by inserting the character "Z" in Item 10 and "SUR/" in field 18 followed by the appropriate RSP performance per the following:**
Add	**For RSP 180 – flight plan RSP180**
Add	**For RSP 400 – flight plan RSP400**
Add	***EXAMPLE–*** ***SUR/ RSP180*** ***SUR/ RSP400*** ***SUR/ RSP180 RSP400***

SUR/ . . . . Include surveillance applications or capabilities not specified in Item 10(b). If ADS−B capability filed in Item 10 is compliant with RTCA DO−260B, include the item “260B” in SUR/. If ADS−B capability filed in Item 10 is compliant with RTCA DO−282B, include the item “282B” in SUR/.	No Change
EXAMPLE− *1. SUR/260B* *2. SUR/260B 282B*	No Change