

SUBJ: FLIGHT SERVICES

- 1. PURPOSE.** This change transmits revised pages to Order JO 7110.10T, Flight Services, and a Briefing Guide.
- 2. DISTRIBUTION.** This change is distributed to select offices in Washington headquarters, regional offices, the William J. Hughes Technical Center, and the Mike Monroney Aeronautical Center; to all air traffic field facilities and international aviation field offices; and to interested aviation public.
- 3. EFFECTIVE DATE.** July 31, 2008.
- 4. EXPLANATION OF CHANGES.** 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 information.
- 5. DISPOSITION OF TRANSMITTAL.** Retain this transmittal until superseded by a new basic order.
- 6. PAGE CONTROL CHART.** See the Page Control Chart attachment.



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Date: APR 28 2008

Flight Services Explanation of Changes

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

a. 4-3-8. DEPARTURE REPORTS

This change adds an exception for locations where the IFR facility has requested omission of the report, provided the procedures are specified in a letter of agreement between the flight service station and departure control facility.

**b. 4-4-8. AUTOMATIC FLIGHT
INFORMATION SERVICE (AFIS) - ALASKA FSSs
ONLY**

This new paragraph establishes procedures for the use of the AFIS by FSS ATCS personnel in 11 of the FSSs in

Alaska. This change cancels and incorporates N JO 7110.483, Alaska Automatic Flight Information Service (AFIS), effective June 3, 2008.

c. 6-2-3. ALASKA SPECIAL INSTRUCTIONS

The address PANCYAYI is no longer valid and FIFO no longer needs this information directly from FSSs/AFSSs. Paragraph deleted.

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

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Section 2. Terms of Reference

1-2-1. WORD MEANINGS

As used in this manual, the words listed below have the following meanings:

- a. “Shall” or an action verb in the imperative sense means a procedure is mandatory.
- b. “Should” means a procedure is recommended.
- c. “May” or “need not” means a procedure is optional.
- d. “Will” means futurity, not a requirement for application of a procedure.
- e. Singular words include the plural.
- f. Plural words include the singular.
- g. “Aircraft” means the airframe, crew members, or both.
- h. “Altitude” means indicated altitude mean sea level (MSL), flight level (FL), or both.
- i. “Miles” means nautical miles unless otherwise specified and means statute miles in conjunction with visibility.
- j. “Time,” when used for ATC operational activities, is the hour and the minute/s in Coordinated Universal Time (UTC). Change to the next minute is made at the minute plus 30 seconds, except time checks are given to the nearest quarter minute. The word “local” or the time zone equivalent shall be stated when local time is given during radio and telephone communications. The term “ZULU” may be used to denote UTC.

1-2-2. NOTES

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

1-2-3. JO 7110.10 CHANGES

- a. Each reprinted, revised, or additional page will show the change number and the effective date of the change.
- b. Bold lines in the margin of the text will mark the location of all changes except editorial corrections.

1-2-4. ABBREVIATIONS

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

NOTE-

In this order, the abbreviation M1 identifies Model 1 Full Capacity procedures, AISR identifies AISR procedures, and OASIS identifies Operational and Supportability Implementation System procedures. Additional abbreviations associated with OASIS are:

WINGS - Weather Information and Navigational Graphics System, and

WIND - Weather Information Network Display.

1-2-5. EXAMPLES

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

1-2-6. PHRASEOLOGY

Phraseology depicted in this order is mandatory.

NOTE-

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

Section 2. Data Recording

4-2-1. TYPES OF DATA RECORDED

- a. M1FC/OASIS entry for:
 1. Flight plans and related messages.
 2. Logging pilot briefings and aircraft contacts.
 3. Service A/B messages.
- b. AISR/manual functions strip marking.

4-2-2. METHODS OF RECORDING DATA

- a. In M1FC and OASIS facilities, entries are made directly into the computer.

NOTE-

Inflight positions may use locally approved written procedures to record data during heavy traffic periods, however, aircraft contact information should be logged in the computer system as soon as practical.

- b. AISR facilities use FAA Form 7230-21 or FAA Form 7233-5 to record flight progress data or inflight pilot briefs. Flight notification messages may be used as substitutes for strips.

- c. Use control/clearance symbols, abbreviations, location identifiers, and contractions for recording position reports, traffic clearances, and other data, where appropriate, in M1FC or OASIS entries and on flight progress strips. When recording data, you may use:
 1. Plain language markings to supplement data when it will aid in understanding the recorded information.
 2. Locally approved contractions and identifiers for frequently used terms and local fixes not listed in either FAAO JO 7340.2, Contractions or FAAO JO 7350.8, Location Identifiers. Use only within your facility, not on data or interphone circuits. All locally approved contractions and identifiers shall be placed in facility files for record and reference purposes.
 3. Plain sheets of paper to record information when the use of flight progress strips is not feasible.
 4. Blank paper to record lengthy ATC clearances or in the case of numerous contacts with the same aircraft; e.g., orientation or emergencies.

- d. To prevent misinterpretation of data hand printed on flight progress strips, use the standard hand-printed characters shown in FIG 4-2-1.

FIG 4-2-1

Hand-Printed Characters Chart

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

NOTE-

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

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

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

a. Use FAA Form 7233-1 to record flight plans in an AISR facility, and forward information on flight plan modifications, cancellations, activations, and closures to the appropriate position for handling.

b. M1FC VFR/DVFR Flight Plan. The following commands are normally used in the performance of VFR/DVFR flight plan functions.

- 1. Flight Plan Filing. (See [TBL 4-2-1.](#))

**TBL 4-2-1
Flight Plan Filing**

Command	Result
FP	Displays blank domestic flight plan mask.
(Fill in mask)	Enter flight plan elements as required.
GI	Transmits flight plan.

- 2. Flight Plan Modification. (See [TBL 4-2-2.](#))

**TBL 4-2-2
Flight Plan Modification**

Command	Result
FP ACID	Displays flight plan by ACID.
(Modify data)	Flight plan elements as required using TAB key.
STPM	Existing flight plan replaced by modified flight plan on proposed list.
STIM	Existing flight plan replaced by modified flight plan on inbound list.

- 3. Cancel Flight Plan. (See [TBL 4-2-3.](#))

**TBL 4-2-3
Cancel Flight Plan**

Command	Result
FP ACID	Displays flight plan by ACID.
CX	Flight plan cancelled.
CX (remarks)	Flight plan cancelled with remarks.

NOTE-

A cancelled flight plan is one that has not been activated.

- 4. Flight Plan Activation. (See [TBL 4-2-4.](#))

**TBL 4-2-4
Flight Plan Activation**

Command	Result
FP ACID	Displays flight plan by ACID.
(Change P Time to D Time)	Prepares Flight plan for transmission.
GI	Flight notification is transmitted.

5. Flight Plan Closure. When closing a VFR flight plan, obtain departure point and destination, if not already known. (See [TBL 4-2-5.](#))

NOTE-

OASIS VFR/DVFR Flight Plan. Use the flight plan functions to record domestic VFR/DVFR flight plan filing, modification, cancellation, activation and closure data. Detailed instructions are contained in the WINGS online help and the WINGS System Users Guide.

**TBL 4-2-5
Flight Plan Closure**

Command	Result
CL ACID	Flight plan closed.
CL ACID, (remarks)	Flight plan closed with remarks.

c. M1FC IFR Flight Plans. The following commands are normally used in the performance of IFR flight plan functions.

- 1. Flight Plan Filing. (See [TBL 4-2-6.](#))

**TBL 4-2-6
Flight Plan Filing**

Command	Result
FP	Displays blank domestic flight plan mask.
(Fill in mask)	Enter flight plan elements as required.
GI	Transmits flight plan with route validation.
GI RO	Transmits flight plan by-passing route validation.

2. Flight Plan Modification. (See [TBL 4-2-7.](#))

**TBL 4-2-7
Flight Plan Modification**

<i>Command</i>	<i>Result</i>
FP ACID	Displays flight plan by ACID.
(Modify data)	Modify flight plan elements as required using TAB key.
STPM	Existing flight plan replaced by modified flight plan on proposed list.

3. Cancel Flight Plan. (See [TBL 4-2-8.](#))

NOTE-
OASIS IFR Flight Plan. Use the flight plan functions to record IFR flight plan filing, modification and cancellation data. Detailed instructions are contained in the WINGS online help and the WINGS System Users Guide.

**TBL 4-2-8
Cancel Flight Plan**

<i>Command</i>	<i>Result</i>
FP ACID	Displays flight plan by ACID.
CX	Flight plan cancelled.
CX (remarks)	Flight plan cancelled with remarks.

4-2-4. PILOT WEATHER REPORTS

a. PIREPs are formatted for input into M1FC by the use of “Display PIREP entry format (WY)” keyword. The following commands are required to transmit PIREPs via the PIREP mask. (See [TBL 4-2-9.](#))

**TBL 4-2-9
PIREP Entry**

<i>Command</i>	<i>Result</i>
WY	Displays the PIREP entry format mask.
Formulate PIREP	using either the free form area of the mask, or the mask, but not both.
GI(s)	(1) Transmits to the AWP. (2) Generates P alert flag at all terminals enabled for P alerts within FSDPS family.

b. In an AISR facility, use FAA Form 7110-2 or material deemed appropriate.

c. PIREPs are formatted for input into OASIS by using a Transmit PIREP dialog box. A properly formatted pilot report will generate an Auto Update alarm at designated workstations.

4-2-5. LOGGING AIRCRAFT CONTACTS

a. M1FC. Aircraft contacts and inflight briefings are logged and stored on the DD file for accountability. The required elements are:

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

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

NOTE-
If current partial exists, ACID is optional. (See [TBL 4-2-10.](#))

**TBL 4-2-10
Type of Flight**

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

(See [TBL 4-2-11.](#))

TBL 4-2-11
Contacts & Inflight Briefings

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

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

NOTE-

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

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

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

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

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

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

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

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

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

FIG 4-2-2

Flight Progress Strip

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

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

incorrect cruising altitude for the direction of flight, issue a VFR cruising altitude advisory.

separation is below 3,000 feet AGL or above FL 180 shall provide appropriate phraseology examples for local use.

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

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

TBL 4-3-1

Millibar Conversion Chart

MILLIBAR CONVERSION CHART															
inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars	inches	millibars
27.50	931.3	28.00	948.2	28.50	965.1	29.00	982.1	29.50	999.0	30.00	1015.9	30.50	1032.8	31.00	1049.8
27.51	931.6	28.01	948.5	28.51	965.5	29.01	982.4	29.51	999.3	30.01	1016.3	30.51	1033.2	31.01	1050.1
27.52	931.9	28.02	948.9	28.52	965.8	29.02	982.7	29.52	999.7	30.02	1016.6	30.52	1033.5	31.02	1050.5
27.53	932.3	28.03	949.2	28.53	966.1	29.03	983.1	29.53	1000.0	30.03	1016.9	30.53	1033.9	31.03	1050.8
27.54	932.6	28.04	949.5	28.54	966.5	29.04	983.4	29.54	1000.3	30.04	1017.3	30.54	1034.2	31.04	1051.1
27.55	933.0	28.05	949.9	28.55	966.8	29.05	983.7	29.55	1000.7	30.05	1017.6	30.55	1034.5	31.05	1051.5
27.56	933.3	28.06	950.2	28.56	967.2	29.06	984.1	29.56	1001.0	30.06	1017.9	30.56	1034.9	31.06	1051.8
27.57	933.6	28.07	950.6	28.57	967.5	29.07	984.4	29.57	1001.4	30.07	1018.3	30.57	1035.2	31.07	1052.2
27.58	934.0	28.08	950.9	28.58	967.8	29.08	984.8	29.58	1001.7	30.08	1018.6	30.58	1035.6	31.08	1052.5
27.59	934.3	28.09	951.2	28.59	968.2	29.09	985.1	29.59	1002.0	30.09	1019.0	30.59	1035.9	31.09	1052.8
27.60	934.6	28.10	951.6	28.60	968.5	29.10	985.4	29.60	1002.4	30.10	1019.3	30.60	1036.2	31.10	1053.2
27.61	935.0	28.11	951.9	28.61	968.8	29.11	985.8	29.61	1002.7	30.11	1019.6	30.61	1036.6	31.11	1053.5
27.62	935.3	28.12	952.3	28.62	969.2	29.12	986.1	29.62	1003.0	30.12	1020.0	30.62	1036.9	31.12	1053.8
27.63	935.7	28.13	952.6	28.63	969.5	29.13	986.5	29.63	1003.4	30.13	1020.3	30.63	1037.3	31.13	1054.2
27.64	936.0	28.14	952.9	28.64	969.9	29.14	986.8	29.64	1003.7	30.14	1020.7	30.64	1037.6	31.14	1054.5
27.65	936.3	28.15	953.3	28.65	970.2	29.15	987.1	29.65	1004.1	30.15	1021.0	30.65	1037.9	31.15	1054.9
27.66	936.7	28.16	953.6	28.66	970.5	29.16	987.5	29.66	1004.4	30.16	1021.3	30.66	1038.3	31.16	1055.2
27.67	937.0	28.17	953.9	28.67	970.9	29.17	987.8	29.67	1004.7	30.17	1021.7	30.67	1038.6	31.17	1055.5
27.68	937.4	28.18	954.3	28.68	971.2	29.18	988.1	29.68	1005.1	30.18	1022.0	30.68	1038.9	31.18	1055.9
27.69	937.7	28.19	954.6	28.69	971.6	29.19	988.5	29.69	1005.4	30.19	1022.4	30.69	1039.3	31.19	1056.2
27.70	938.0	28.20	955.0	28.70	971.9	29.20	988.8	29.70	1005.8	30.20	1022.7	30.70	1039.6	31.20	1056.6
27.71	938.4	28.21	955.3	28.71	972.2	29.21	989.2	29.71	1006.1	30.21	1023.0	30.71	1040.0	31.21	1056.9
27.72	938.7	28.22	955.6	28.72	972.6	29.22	989.5	29.72	1006.4	30.22	1023.4	30.72	1040.3	31.22	1057.2
27.73	939.0	28.23	956.0	28.73	972.9	29.23	989.8	29.73	1006.8	30.23	1023.7	30.73	1040.6	31.23	1057.6
27.74	939.4	28.24	956.3	28.74	973.2	29.24	990.2	29.74	1007.1	30.24	1024.0	30.74	1041.0	31.24	1057.9
27.75	939.7	28.25	956.7	28.75	973.6	29.25	990.5	29.75	1007.5	30.25	1024.4	30.75	1041.3	31.25	1058.2
27.76	940.1	28.26	957.0	28.76	973.9	29.26	990.8	29.76	1007.8	30.26	1024.7	30.76	1041.6	31.26	1058.6
27.77	940.4	28.27	957.3	28.77	974.3	29.27	991.2	29.77	1008.1	30.27	1025.1	30.77	1042.0	31.27	1058.9
27.78	940.7	28.28	957.7	28.78	974.6	29.28	991.5	29.78	1008.5	30.28	1025.4	30.78	1042.3	31.28	1059.3
27.79	941.1	28.29	958.0	28.79	974.9	29.29	991.9	29.79	1008.8	30.29	1025.7	30.79	1042.7	31.29	1059.6
27.80	941.4	28.30	958.3	28.80	975.3	29.30	992.2	29.80	1009.1	30.30	1026.1	30.80	1043.0	31.30	1059.9
27.81	941.8	28.31	958.7	28.81	975.6	29.31	992.6	29.81	1009.5	30.31	1026.4	30.81	1043.3	31.31	1060.3
27.82	942.1	28.32	959.0	28.82	976.0	29.32	992.9	29.82	1009.8	30.32	1026.8	30.82	1043.7	31.32	1060.6
27.83	942.4	28.33	959.4	28.83	976.3	29.33	993.2	29.83	1010.2	30.33	1027.1	30.83	1044.0	31.33	1061.0
27.84	942.8	28.34	959.7	28.84	976.6	29.34	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	1048.4	31.46	1065.4
27.97	947.2	28.47	964.1	28.97	981.0	29.47	998.0	29.97	1014.9	30.47	1031.8	30.97	1048.8	31.47	1065.7
27.98	947.5	28.48	964.4	28.98	981.4	29.48	998.3	29.98	1015.2	30.48	1032.2	30.98	1049.1	31.48	1066.0
27.99	947.9	28.49	964.8	28.99	981.7	29.49	998.6	29.99	1015.6	30.49	1032.5	30.99	1049.4	31.49	1066.4

4-3-6. RADIO COMMUNICATIONS TRANSFER

Transfer radio communications by specifying the following:

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

PHRASEOLOGY-

CONTACT (name of facility) ON (frequency).

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

PHRASEOLOGY-

CONTACT (name of service) ON (frequency).

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

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

NOTE-

For ATC clearances, "verbatim" means exact control instructions, in the format stated in FAAO JO 7110.65, Air Traffic Control, Para 4-2-1, Clearance Items.

PHRASEOLOGY-

Aircraft on the ground:

(Facility) RADIO, CLEARANCE REQUEST.

After go-ahead from ATC,

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

Aircraft airborne:

(Facility) RADIO, CLEARANCE REQUEST.

After go-ahead from ATC:

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

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

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

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

NOTE-

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

REFERENCE-

Pilot/Controller Glossary.

4-3-8. DEPARTURE REPORTS

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

PHRASEOLOGY-

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

NOTE-

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

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

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

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

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

- (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.
3. Relay ATC instructions.

PHRASEOLOGY-

LANDING GEAR APPEARS TO BE DOWN AND IN PLACE.

4-4-8. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) - ALASKA FSSs ONLY

Use the AFIS to provide advance non-control airport, meteorological, and pertinent NOTAM information to aircraft.

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 shall also be spoken at the end of the message and be used sequentially, beginning with "Alfa," ending with "Zulu." Full-time facilities shall repeat the letter without regard to the beginning of a new day. Part-time facilities shall identify the first resumed broadcast message with "Alfa."

b. The AFIS recording shall 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, AIRMETs, SIGMETs, CWAs, PIREPs, or other information that facilitates the repetitive transmission of essential but routine information.

2. Data may be omitted because of rapidly changing weather conditions or other circumstances when deemed necessary by the supervisor or controller-in-charge. When this occurs, the AFIS shall state the name of the appropriate facility to

contact (and frequency, if different from airport CTAF) to obtain the missing data.

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 shall either:

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

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

Specialists shall provide LAA information when the AFIS is not available.

5. At the discretion of the supervisor/controller-in-charge, AFIS broadcasts may be suspended within specified time periods. During these periods, the AFIS shall contain a brief statement 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 shall record a message with the appropriate frequency and facility contact information as well as known information regarding resumption of FSS 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 AFSS) 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 AFSS) ON (frequency)."

7. In the event of an AFIS equipment failure, the supervisor/controller-in-charge shall make an entry in the Daily Record of Facility Operation, FAA Form 7230-4; notify the appropriate Technical Operations personnel; issue a NOTAM; and resume LAA.

8. 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) Weather information consisting of: Wind, visibility, present weather (obstructions to visibility), sky condition, temperature, dew point, altimeter, pertinent remarks included in the official weather observation. The ceiling/sky condition, visibility, and obstructions to vision may be omitted if the ceiling is above 5,000 feet 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 breaking action or friction reports when provided. Include the time of the report and a word describing the cause of the runway friction problem.

PHRASEOLOGY-

"RUNWAY (number) MU (first value, second value, third value) AT (time), (cause)."

REFERENCE-

FAAO JO 7110.10, Para 4-4-2, LAA/RAIS/RAA Elements and Phraseology.

(i) Low Level Wind shear (LLWS) advisory, including those contained in the terminal forecast and in pilot reports. (Include pilot report 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 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 Alaska Flight Service Information Area Group or the Alaskan Region ROC.

REFERENCE-

FAAO JO 7210.3, Para 2-1-9, Handling MANPADS Incidents.

(l) Any other advisories applicable to the area covered by the FSS 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 FSS AFIS message on initial contact.

EXAMPLE-

"Dillingham airport information ALFA. One six five five"

Zulu. Wind one three zero at eight; visibility one five; ceiling four thousand overcast; temperature four, dew point three; altimeter two niner niner zero. Favored runway one niner. Notice to Airmen, Dillingham V-O-R out of service. Contact Dillingham Radio on one two three point six for traffic advisories. Advise on initial contact you have ALFA.”

“Kotzebue information ALFA. One six five five Zulu. Wind, two one zero at five; visibility two, fog; ceiling one

hundred overcast; temperature minus one two, dew point minus one four; altimeter three one zero five. Altimeter in excess of three one zero zero, high pressure altimeter setting procedures are in effect. Favored runway two six. Weather in Kotzebue surface area is below V-F-R minima - an ATC clearance is required. Contact Kotzebue Radio on one two three point six for traffic advisories and advise intentions. Notice to Airmen, Hotham NDB out of service. Transcribed Weather Broadcast out of service. Advise on initial contact you have ALFA.”

Section 2. Flight Plan Proposals

6-2-1. FLIGHT PLAN RECORDING

Record flight plans on FAA Form 7233-1, M1FC Domestic Flight Plan Mask, or in the OASIS Domestic Flight Plan dialog box. Completion of all blocks or fields is not required in every case, and all items filed are not always transmitted. Use authorized abbreviations where possible. Complete as follows:

NOTE-

OASIS. For detailed instructions on the Domestic Flight Plan dialog box, refer to the WINGS online help or the WINGS System Users Guide.

a. Item 1. Type of flight plan.

1. FAA Form 7233-1. Check the appropriate box.

2. M1FC- FR: field.

(a) V - civilian VFR flight plans including DVFR.

(b) MV - military VFR flight plans.

(c) PV - VFR flight plans departing from outside the facility's flight plan area.

(d) DV - Do not use. See para 6-6-3a.

(e) I - civil IFR flight plans or military IFR flight plans that do not require transmission of a flight notification message.

(f) MI - military IFR flight plans that require a flight notification message.

(g) PI - IFR flight plans departing from outside the facility's flight plan area that require a flight notification message.

NOTE-

1. M1FC. PI for transborder flights that require an ADCUS (Mexico) or CANPASS/GATE (Canada/US) flight notification message. PI messages are addressed to the departure tie-in station. They are in addition to the I message transmitted to the departure ARTCC. Remarks to be transmitted by the departure station as part of the flight notification message must be included in the PI message and preceded by a \$ sign.

2. OASIS. IFR transborder flights that require an ADCUS (Mexico) flight notification message will be automatically addressed and transmitted to the departure ARTCC and the departure tie-in station if ADCUS is entered in

remarks. To send an IFR Canadian flight plan departing from outside the facility's flight plan area that requires a flight notification message, enter the following in remarks: \$CANPASS %ADCUS. OASIS uses the ADCUS to automatically address and transmit the flight plan to the departure tie-in station but the only remark transmitted is CANPASS. This is in addition to the message transmitted to the departure ARTCC.

(h) SC - Stereo flight plans for civil aircraft.

(i) SM - Stereo flight plans for military aircraft.

3. OASIS - Select type of flight plan from the Flight Rules (FR) drop down list:

(a) VFR - civilian VFR flight plans, including DVFR.

(b) IFR

(c) DVFR - Do not use. See para 6-6-3a.

(d) MIL VFR

(e) MIL IFR

(f) STEREO CVL

(g) STEREO MIL

(h) MIL IFR STOPOVER

(i) MIL VFR STOPOVER

(j) DVFR STOPOVER - Do not use.

b. Item 2. Aircraft Identification (M1FC- AI: field. OASIS - Aircraft ID text box). Enter as follows, but do not exceed seven alphanumeric characters:

1. Civil Aircraft Including Air Carrier: Aircraft letter/digit registration including the letter **T** prefix for air taxi aircraft, the letter **L** for LIFEGUARD aircraft, or the three-letter aircraft company designator specified in FAAO JO 7340.2, Contractions followed by the trip or the flight number.

EXAMPLE-

N12345
TN5552Q
AAL192
LN751B

NOTE-

The letter **L** shall not be entered in Item 2 of the flight plan for air carrier or air taxi LIFEGUARD aircraft. Include

the word *LIFEGUARD* in the remarks section of the flight plan.

2. U.S. Military Aircraft. Use the military abbreviation followed by the last five digits of the aircraft's number. For certain tactical mission aircraft, enter the assigned three-to-six letter code word followed by a one-to-four digit number. (See TBL 6-2-1.)

**TBL 6-2-1
Military**

Abbreviation	Military Service
A	USAF
C	Coast Guard
E	Air Evacuation
G	Air/Army National Guard
L	LOGAIR (USAF contract)
R	Army
RCH	REACH (USAF Air Mobility Command)
S	Special Air Mission
VM	Marine Corps
VV	Navy

3. Canadian Military Aircraft. The abbreviations shall be followed by a number group not to exceed four digits. (See TBL 6-2-2.)

**TBL 6-2-2
Canadian Military**

Abbreviation	Military Service
CFC	Canadian Forces
CTG	Canadian Coast Guard

c. *Item 3.* Aircraft Type (M1FC- AT: field. OASIS - Aircraft Type text box). Insert the name or abbreviation (two-to-four alphanumeric characters) of the manufacturer's or military designation. For homebuilt/experimental aircraft, use HXA, HXB, or HXC in accordance with the FAAO JO 7340.2, Contractions. Spell out aircraft type in Remarks.

NOTE-
OASIS. OASIS validates all aircraft types in accordance with FAAO JO 7340.2, Contractions. Nonstandard contractions will be rejected.

1. Prefix to Aircraft Type (one-to-two alphanumeric characters). For IFR operations, if the aircraft's weight class is heavy, indicate this with the prefix "H". If a formation flight is planned, enter the number and type of aircraft; e.g., 2H/B52.

2. Suffix to Aircraft Type (one alpha character). Indicate for IFR operations the aircraft's radar

transponder, DME, or RNAV (includes LORAN) capability by adding the appropriate symbol preceded by a slant (/). (See TBL 6-2-3.)

**TBL 6-2-3
Suffix to Aircraft Type**

Suffix	Aircraft Equipment Suffixes
	DME
/A	Transponder with Mode C.
/B	Transponder with no Mode C.
/D	No transponder.
	NO DME
/T	Transponder with no Mode C.
/U	Transponder with Mode C.
/X	No transponder.
	TACAN ONLY
/M	No transponder.
/N	Transponder with no Mode C.
/P	Transponder with Mode C.
	AREA NAVIGATION (RNAV)
/C	LORAN, VOR/DME, or INS, transponder with no Mode C.
/I	LORAN, VOR/DME, or INS, transponder with Mode C.
/Y	LORAN, VOR/DME, or INS with no transponder.
	ADVANCED RNAV With Transponder and Mode C (If an aircraft is unable to operate with a transponder and/or Mode C, it will revert to the appropriate code listed above under Area Navigation.)
/E	Flight Management System (FMS) with DME/DME and IRU position updating.
/F	FMS with DME/DME position updating.
/G	Global Navigation Satellite System (GNSS), including GPS or WAAS, with en route and terminal capability.
/R	Required Navigational Performance. The aircraft meets the RNP type prescribed for the route segment(s), route(s) and/or area concerned.
	Reduced Vertical Separation Minimum (RVSM). Prior to conducting RVSM operations within the U.S., the operator must obtain authorization from the FAA or from the responsible authority, as appropriate.
/J	/E with RVSM

FB:0330 AA: PD:JOE PILOT
 HB:DSM NB: CR:R/W TL:
 OP:
 CP:KFODYFYX
 TA:2100

NOTE-

1. MIFC will autoaddress the CP field, automatically extract the required items from the flight plan mask and transmit a flight proposal to the departure tie-in AFSS/FSS.

MIFC will automatically fill in the originator of the flight plan in the RM field when the flight plan is transmitted.

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

3. OASIS will autoaddress the Closure Points field, automatically extract the required items from the flight plan, insert the originator of the flight plan into the Remarks field, and transmit a flight proposal to the departure tie-in AFSS/FSS at a time determined by the facility parameter.

6-2-3. ENTRY OF MILITARY IFR MULTI-LEG STOPOVER FLIGHT PLAN

a. Complete all FP fields down through time en route or remarks for the first leg. Use MI in the flight rules field. This will hold the flight plan on the proposed list for flight notification.

b. All subsequent legs shall be preceded by a slant and recorded in the route field after the first leg: DESTINATION, ETE, AIRSPEED, P-TIME, ALTI-TUDE, ROUTE, and remarks for each leg.

c. After all legs have been recorded properly, the FP should autoaddress the ARTCC of the first leg departure point in the OP: field and all destination BASOPS stations in the CP: field. GI will send the first leg to the appropriate ARTCC and place the flight plan on the proposed list.

EXAMPLE-

MIFC
 FR:MI AI:BAT21 AT:F16/R TS:450 DD:DBQ TM:P1700
 AE:280
 RT:DBQ..TNU..OFF/FOE 0+15 450 P1800 270
 OFF..FOE
 AD:OFF TE:0030 RM:*REMARKS \$VTO12115
 FB:0230 AA: PD:ON FILE BASOPS
 HB:DBQ NB:1 CR:OD TL: OP:ZCG
 CP:KOFFYXYX KFOEYXYX
 TA:1730

d. To send the second leg of the flight plan to the appropriate ARTCC, the original flight plan needs to be altered.

1. Display the flight plan (FPC).

2. Change the MI to I. It is not necessary to hold this leg for flight notification.

3. Make the necessary changes to indicate the next leg of the flight plan.

EXAMPLE-

MIFC
 FR:I AI:BAT21 AT:F16/R TS:450 DD:OFF TM:P1800
 AE:270
 RT:OFF..FOE
 AD:FOE TE:0015 RM:*REMARKS
 FB: AA: PD:ON FILE BASOPS
 HB:DBQ NB:1 CR:OD TL: OP:ZCP
 CP:
 TA:1815

NOTE-

If there is an additional leg, it must be taken from the original flight plan.

e. After all legs have been sent to their appropriate ARTCC, construct a flight notification message.

1. Retrieve the original flight plan from the proposal list.

2. Edit each leg preceded by a slant to indicate the destination, ETE and pertinent remarks.

3. Delete all other information and restore to the proposal list (STPM) and await activation.

EXAMPLE-

MIFC
 FR:MI AI:BAT21 AT:F16/R TS:450 DD:DBQ TM:P1700
 AE:280
 RT:DBQ..TNU..OFF/FOE 0+15
 AD:OFF TE:0030 RM:*REMARKS \$VTO12115
 FB:0230 AA: PD:ON FILE BASOPS
 HB:DBQ NB:1 CR:OD TL:
 OP:ZCG
 CP:KOFFYXYX KFOEYXYX
 TA:

NOTE-

OASIS. Transmit only the applicable inbound and outbound flight notification information to intermediate tie-in facilities. Remarks common to all flight segments shall be entered in the Remarks text box for transmission. These remarks shall include: departure point, all stops and destination.

EXAMPLE-

DEPD TCM LNDG EDW DMA JAX ADW

NOTE-

OASIS. Detailed instructions for the processing of Military IFR Multi-Leg Stopover Flight Plans are contained in the WINGS online help and the WINGS System Users Guide.

6-2-4. ENTRY OF MILITARY VFR STOPOVER FLIGHT PLAN

a. File a military VFR stopover flight plan in the same format as a military IFR stopover.

b. After the flight plan is filed on the proposal list, display the flight plan (FP ACID). Use the CX keyword to cancel the flight plan. The complete flight plan is then on file for search and rescue.

EXAMPLE-

MIFC
FR:MV AI:G2034 AT:UH1/U TS:90 DD:FOD TM:P1800
AE:055
RT:FOD..DSM..OFF/MLC 3+10 90 P2100 045
OFF..MLC/SZL
2+10 90 P0100 055 MLC..SZL
AD:OFF TE:0200 RM:\$VT010600
FB:0400 AA: PD:ON FILE BASOPS
HB:DBQ NB:1 CR:O/D TL:
OP:
CP:KOFFYXYX KMLCYFYX KSZLYXYX
TA:2000

c. After the flight plan is cancelled, use the FPC keyword to display the flight plan on the screen.

Change the RT field to show only the destination, ETE, and any pertinent remarks for all remaining legs. File the revised version onto the proposal list to await activation.

EXAMPLE-

MIFC
FR:MV AI:G2034 AT:UH1/U TS:90 DD:FOD TM:P1800
AE:055
RT:FOD..DSM..OFF/MLC 3+10/SZL 2+10
AD:OFF TE:0200 RM:\$VT010600
FB:0400 AA: PD:ON FILE BASOPS
HB:DBQ NB:1 CR:OD TL:
OP:
CP:KOFFYXYX KMLCYFYX KSZLYXYX
TA:2000

NOTE-

OASIS. Transmit only the applicable inbound and outbound flight notification information to intermediate tie-in facilities. Remarks common to all flight segments shall be entered in the Remarks text box for transmission. These remarks shall include: departure point, all stops and destination.

EXAMPLE-

DEPD TCM LNDG EDW DMA JAX ADW

NOTE-

OASIS. Detailed instructions for the processing of Military VFR Stopover Flight Plans are contained in the WINGS online help and the WINGS System Users Guide.

appropriate ARTCC Data Systems Specialist or Primary A position when it is suspected that a flight plan has been erroneously rejected by the computer.

6. IFR flight plans specifying stopovers or terminal area delays require separate messages be sent to the appropriate ARTCCs for each segment. Unless otherwise covered by a letter of agreement, treat flight plans proposing special use airspace delays in the same manner. Separate messages are also required for any other en route delays if a change of altitude stratum is proposed at the delay point. See subpara 6-3-3c14(h)(1)[b] for delays not involving a change of altitude stratum.

7. Some fields contain the necessary functions to operate the computer data terminal adapters and are designated by alpha characters. Do not separate these fields with spaces.

c. For EAS FDP acceptance, the complete message contents, the order of data, the number of characters allowed within any data field or element, and any associated operational procedures or restrictions are as follows (as used here, field refers to EAS FDP field and/xx refers to M1FC field):

NOTE-

OASIS. Detailed operating instructions for processing IFR Flight Plans are contained in the WINGS online help and the WINGS System Users Guide.

1. Start of Message Code (Field A). No entry requirement for AISR equipment. (New Line Key)

2. Preamble Line (Field B). Consists of originator, priority, and addressee(s).

3. Originator Line (Field C). Consists of a six-digit date-time group and the eight-character originator identifier.

4. End of Line Function (Field E). Same as subpara 6-3-3c1.

5. Source Identification (Field 00). Nine or ten characters required followed by a space character in the following order:

(a) The three-character address of the originating AFSS/FSS or the three-character identifier of the originating airline office.

(b) Four characters (digits) to indicate the time (in UTC) the flight plan was composed by the originator.

(c) Three characters (digits) representing the number of the message; e.g., 021. It is recommended that numbering systems be restarted with 001 at the beginning of each day (0000Z).

NOTE-

There are no spaces between characters in subparas 6-3-3c5(a), (b), and (c).

6. Message Type (Field 01). The letters FP followed by a space character.

7. Aircraft Identification (Field 02/AI:). Consists of two-to-seven characters followed by a space character. The first character of the identification must be a letter.

(a) Phrases such as Flynet, Snow Time, etc., which do not identify specific aircraft, but are supplemental data defining a special mission or function, shall be contained in remarks (Field 11/RM:).

(b) For foreign aircraft identifications with a numeric as the first character, insert an X as the first character and explain in the remarks section.

8. Aircraft Data (Field 03/AT:). Consists of two-to-nine characters followed by a space character. Aircraft data within the field may vary from one-to-three elements consisting of:

(a) Number of aircraft (when more than one) and/or the heavy aircraft indicator. For heavy aircraft the indicator is "H/". This element contains a maximum of two characters followed by a slash.

EXAMPLE-

2/F15

3H/B52

10/F18

(b) Type of Aircraft. This element is mandatory and contains two-to-four characters consisting of the authorized aircraft designator as contained in FAAO JO 7340.2, Contractions. Enter military designators of aircraft, omitting prefixes and suffixes pertaining to aircraft mission or model.

(c) Equipment Suffix. This element is optional and consists of a slash (/) followed by one letter which is one of the approved designators identifying transponder and/or navigation gear.

9. Airspeed (Field 05/TS:). Consists of two-to-four characters followed by a space character. This field shall indicate the filed true airspeed in knots or Mach number.

EXAMPLE-
350
M075

10. Departure Point or Coordination Fix (Field 06/DD:). Consists of two-to-twelve characters followed by a space character. This field contains the departure point or fix at which an aircraft will pick up IFR. It must be a fix, not an airway. For proposed departures, it must match the first element in the route of flight; and for IFR pickups, it must match either the first element in the route of flight or the third element if the ./ or VFR is used as the second element.

11. Proposed Departure Time (Field 07/TM:). Consists of five or seven characters followed by a space character. This field contains the letter P followed by a four or six digit time group in UTC.

12. Requested Altitude (Field 09/AE:). Consists of two-to-seven characters followed by a space character. Altitudes or flight levels, as appropriate, shall be expressed in hundreds of feet, but without leading zeros. The letters OTP shall be entered in this field to indicate a requested altitude of VFR conditions-on-top. Blocked altitudes are indicated by entering the lower altitude of the requested block, the letter B, and the higher altitude of the block; e.g., 80B100, 240B270, with no intervening spaces.

13. End of Line (New Line Key) (Field E). The first occurrence of Field E shall always follow Field 09/AE: of the message. Any time a subsequent end of line becomes necessary, if used within Field 10/RT:, it must be preceded by the appropriate element separator (not a space). If used within Field 11/RM:, Field E may be entered at any point within the remarks sequence.

14. Route of Flight (Field 10/RT). The route of flight consists of departure point or pickup point (PUP), the route of flight, and normally a destination followed by a space character.

(a) Field 10/RT: is a fixed sequence field and must begin with a fix; e.g., fix, airway, fix, airway, etc. The last element may be a fix or one of the route elements VFR, DVFR, or XXX (incomplete route indicator). An element is separated from another element by a period character.

(b) When consecutive fix elements or route elements are filed, the fixed sequence format is maintained by inserting two period characters

between the filed Field 10/RT: elements; e.g., fix..fix or airway..airway.

(c) When a pilot files an airway..airway combination, obtain the point of transition and insert it in the transmitted flight plan; e.g., SGF.J105..J24.STL.J24. The foregoing does not apply if the first encountered fix happens to be the next filed junction point within the route.

NOTE-
OASIS. Airway..airway combinations in the route of flight require a defined junction (either five-character alphanumeric, LOCID, or pre-defined fix-radial-distance.)

(d) The slash character (/) is used to file a latitude/longitude fix or in describing an ETE.

(e) The maximum number of filed field elements for computer-addressed flight plans is 40. Double period insertions do not count against the 40-element limitation. Transmit flight plans filed exceeding the route element limitation to the ARTCC, not its computer.

(f) Fix Descriptions. A fix must be filed in one of the following ways:

(1) Fix Name. Domestic, Canadian, and International identifiers of two-to-five alphanumeric characters.

(2) Fix Radial Distance (FRD). Consists of eight-to-eleven alphanumeric characters in the following sequence: Two-to-five characters identifying a navigational aid, three characters of azimuth expressed in degrees magnetic, and three characters of distance expressed in nautical miles from the navigational aid. Zeros preceding a significant character shall be entered before the azimuth and distance components as required to assure the transmission of three characters for each.

(3) Latitude/Longitude. Consists of nine-to-twelve characters entered as follows: The latitude shall appear as the first component as four numbers (trailing zeros required) with an optional letter N or S appended. If the optional letter is omitted, north is understood. Latitude shall be separated from longitude with a slash (/) element separator. Longitude shall appear as the second component as four or five digits (trailing zeros required, leading zero optional) with an optional letter W or E appended. If the optional letter is omitted, west is understood.

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

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. Transborder flight plans to Mexico with oceanic routing require the ICAO flight plan while the domestic flight plan may be used for flights with route over land.

7-5-2. INBOUNDS FROM MEXICO

a. Flight notification messages.

1. M1FC/OASIS. When received in the proper format, VFR flight notification messages are automatically acknowledged and suspended. Deliver VFR and IFR ADCUS messages to Customs and Border Protection. Store IFR ADCUS messages in the M1 DD file or OASIS History file, as appropriate.

2. AISR. Acknowledge receipt of a flight notification message as soon as practical by transmitting the letter R followed by the full ACID; e.g., R N711VR. Deliver VFR and IFR ADCUS messages to Customs and Border Protection. Suspend 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 for VFR Aircraft. 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. 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.

NOTE-

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

REFERENCE-

FAAO JO 7350.8, 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. 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.

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.

c. 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.

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-

FAAO JO 7350.8, Location Identifiers.

3. M1FC. For automatic addressing and formatting, use V in the flight rules of the domestic flight plan mask. For automatic addressing, use &M in the OP: field. Use the four-letter (ICAO) location identifier for the destination airport. Manually

address the message to the designated Regional Flight Dispatch Office.

EXAMPLE-
MIFC

FR:V AI:N1234S AT:C182/A TS:120 DD:SAT TM:D1200
AE:65
RT:SJT.DRT.MMCU
AD:MMCU TE:0400 RM:\$ADCUS 4 ZUCHERMANN
FB:0800 AA: PD: A. ZUCHERMANN
HB:SAT NB:4 CR:R/B TL: OP:&M
CP:MMCUXMXO TA:1600

MIFC will automatically address the CP: field if the 4-letter ICAO address is used in the AD: field, &M is used in the OP: field and the destination is an airport-of-entry. Only the tie-in facility will be addressed.

4. AISR. 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-
AISR

FF MMCUXMXO
DTG KSJTYFYX
VFR N1234S C182 SJT MMCU 1400 \$ADCUS
4ZUCHERMANN

5. OASIS. For automatic addressing and formatting, select VFR in the Flight Rules text box of the Flight Plan dialog box, and enter ADCUS in Remarks.

d. 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-
FAAO JO 7350.8, Location Identifiers.

EXAMPLE-
AISR

FF MMCUXMXO MMYXMXO
REQ ACP N1234S

MIFC
ORIGIN:SJT PRECEDENCE:FF TIME:1130
ACK:Y
ADDR:MMCUXMXO MMYXMXO
REQ ACP N1234S

NOTE-
OASIS facilities, use the Transmit General Facility Message dialog box to transmit “request acceptance” messages.

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

f. 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.

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

7-5-4. MEXICAN REGIONAL FLIGHT DISPATCH OFFICE TELEPHONE NUMBERS

(See Table 7-5-1.)

TBL 7-5-1

Dispatch Office Phone Numbers

<i>Mexican Regional Flight Dispatch Office Telephone Numbers</i>		
<i>REGION</i>	<i>IDENTIFIER</i>	<i>TELEPHONE NUMBER</i>
CENTRO (CENTRAL)	MMM	01152 5 762-7062 01152 5 784-40-99 ext. 153 01152 5 762-58-77 ext. 153
NORESTE (NORTHEAST)	MMY	01152 83 454-020 ext. 141
NOROESTE (NORTHWEST)	MMZ	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

c. Contractions and abbreviations should be used to shorten data transmissions to the extent possible. In no case should one be used that is not documented in FAAO JO 7340.2, Contractions. For international communications, be aware that the foreign correspondent may not understand all FAA contractions and may not have a full command of the English language. Care should be exercised in international communications to avoid slang phrases and non-ICAO approved abbreviations.

d. RQ/WQ. This message is used when requesting an individual report(s). It consists of the keywords /RQ for AISR or VM for M1FC for individual requests from the global and local data base; /WQ for AISR or NS RQ for M1FC for individual reports from WMSC. To avoid circuit congestion, requests for this type of data may not exceed one line. The following kinds of data may be requested using these keywords: SA, NTM, FD1, FD2, FD3, SW, SD, and FT. The reply to the request for an SA will include the basic METAR and any subsequent Specials (SPECI), amendment, or correction. It will also include all current NOTAM and PIREPs (UA/UUA) for that weather location. A request for SP will return only the METAR and any SPECIs for that hour. The response to NOTAM requests will include all current NOTAM for the NOTAM file specified, while requests for an FD or FT will include the current forecast and the latest amendments issued.

NOTE-

1. OASIS facilities, use the WMSCR Transmit Request dialog box for retrieval of WMSCR data. Requests can be made for individual weather reports by selecting REPORT as the RR Type. Detailed instructions are contained in the WINGS online help and the WINGS System Users Guide. Designated workstations, normally restricted to OS/CIC, must be enabled in order to use this function.

2. This procedure is adequate to facilitate reviewing weather trends; but for briefing purposes, the SA request should be used to ensure all en route and/or terminal NOTAM data pertinent to the flight is available.

EXAMPLE-

(This example is a request for the latest hourly observation and terminal forecast for JFK from WMSC.)

AISR
/WQ JFK SA JFK FT

M1FC
NS RQ JFK SA JFK FT

EXAMPLE-

(To obtain headers when requesting FD data, the input message should contain the word DATA when requesting U.S. FDs and FCST when requesting Canadian FDs.)

AISR
/RQ DATA FD1 SFO FD1 FCST FD1
YYZ FD1

M1FC
NS RQ DATA FD1 SFO FD1 FCST FD1
YYZ FD1

e. WC. This message is used for requesting information, such as that contained in the SACA20 KWBC, which is available at the WMSC in collective form only. Only five collectives shall be called for in a request.

NOTE-

OASIS facilities, use the WMSCR Transmit Request dialog box for retrieval of WMSCR data. Requests can be made for WMO products by selecting WMO as the RR Type. Detailed instructions are contained in the WINGS online help and the WINGS System Users Guide. Designated workstations, normally restricted to OS/CIC, must be enabled in order to use this function.

EXAMPLE-

AISR
/WC SACA20 KWBC

f. RC. This message is used to retrieve a collective from the local data base. Non-AISR facilities use it for retrieving data listed in subpara 10-1-5e. Limit requests to one at a time.

NOTE-

OASIS does not support this function.

EXAMPLE-

M1FC
NS RC SACA20 KWBC

g. RL/WL. The RL function has been set aside for the use of the AWP in M1FC. The AWP is the only facility able to use the RL keyword in M1FC. The WL function should be coordinated with WMSC prior to use by a AISR facility. This message is used in requesting a group of reports, forecasts, or a mixture of these to meet specific requirements. In this type of message, information is requested by specifying a single predetermined list. Only one list may be requested in each message. The lists are intended to provide groupings of individual reports, such as the observations and/or forecasts for all locations in a metropolitan area or along an airway.

NOTE-
OASIS does not support this function.

10-1-6. WMSCR NEGATIVE RESPONSE MESSAGES

a. WMSCR automatically generates a negative response to request/reply inputs for which it cannot deliver.

1. NO REPORT AVBL. This response means the current data has not been received by WMSCR.

2. NOT IN SYSTEM. This response means WMSCR does not receive and store the requested data.

3. INVALID FORMAT. This response means the computer cannot process the request because of an input error.

b. WMSCR will generate only one negative response message to an RQ transmission that requests multiple reports and only when none of the data requested can be delivered.

TBL 14-1-10
Ceiling and Sky Coverage

<i>Designator</i>	<i>Phraseology</i>
BKN000 ¹	SKY PARTIALLY OBSCURED
BKN000 ²	CEILING LESS THAN FIVE ZERO BROKEN
FEW000 ¹	SKY PARTIALLY OBSCURED
FEW000 ²	FEW CLOUDS AT LESS THAN FIVE ZERO
(lowest layer aloft) BKN/OVC	(precede with) CEILING
SCT000 ¹	SKY PARTIALLY OBSCURED
SCT000 ²	LESS THAN FIVE ZERO SCATTERED
VV	INDEFINITE CEILING
¹ Surface-based obscurations. Requires remarks, i.e. RMK FG SCT000, FU BKN000, etc.	
² No remark means the layer is aloft.	

2. State cloud heights in tens, hundreds and/or thousands of feet. (See TBL 14-1-11.)

TBL 14-1-11
Cloud Heights

<i>Number</i>	<i>Phraseology</i>
000 ¹	ZERO
003	THREE HUNDRED
018	ONE THOUSAND EIGHT HUNDRED
200	TWO ZERO THOUSAND
¹ Spoken as zero only when used with VV.	

NOTE-

1. When the ceiling is less than 3,000 feet and variable, the variable limits will be reported in the remarks.

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

3. Announce sky conditions as indicated below. (See TBL 14-1-12.)

TBL 14-1-12
Sky Conditions

<i>Contraction</i>	<i>Phraseology</i>
BKN	(height) BROKEN
CLR ¹	CLEAR BELOW ONE TWO THOUSAND
FEW	FEW CLOUDS AT (height)
OVC	(height) OVERCAST
SCT	(height) SCATTERED
SKC	CLEAR
¹ Automated weather reports.	

4. The following are examples of broadcast phraseology of sky and ceiling conditions: (See TBL 14-1-13.)

TBL 14-1-13
Sky and Ceiling Conditions

<i>Condition</i>	<i>Phraseology</i>
BKN000 BKN010 BKN050 RMK FG BKN000	SKY PARTIALLY OBSCURED, CEILING ONE THOUSAND BROKEN, FIVE THOUSAND BROKEN. FOG OBSCURING FIVE TO SEVEN EIGHTS OF THE SKY.
BKN010	CEILING ONE THOUSAND BROKEN.
SCT000 SCT020 OVC035 RMK FG SCT000	SKY PARTIALLY OBSCURED, TWO THOUSAND SCATTERED, CEILING THREE THOUSAND FIVE HUNDRED OVERCAST. FOG OBSCURING THREE TO FOUR EIGHTS OF THE SKY.
SCT020 OVC250	TWO THOUSAND SCATTERED, CEILING TWO FIVE THOUSAND OVERCAST.
VV000	INDEFINITE CEILING ZERO.
VV012	INDEFINITE CEILING ONE THOUSAND TWO HUNDRED.

j. Announce surface temperature and dew point by stating the words TEMPERATURE or DEWPOINT, as appropriate, followed by the temperature in degrees Celsius. Temperatures below zero are announced by prefixing the word MINUS before the values. (See TBL 14-1-14.)

**TBL 14-1-14
Temperature/Dewpoint**

<i>Reading</i>	<i>Phraseology</i>
02/M01	“Temperature two, dew point minus one.”
04/02	“Temperature four, dew point two.”
18/13	“Temperature one eight, dew point one three.”

k. Altimeter Setting.

1. State the word **ALTIMETER** followed by the four digits of the altimeter setting. (See TBL 14-1-15.)

**TBL 14-1-15
Altimeter Setting**

<i>Altimeter Setting</i>	<i>Phraseology</i>
A2989	“Altimeter two niner eight niner.”
A3001	“Altimeter three zero zero one.”
A3025	“Altimeter three zero two five.”

2. Identify the source of all altimeter settings when issued, if not given as part of an identified surface observation. Provide the time of the report if more than one hour old.

PHRASEOLOGY-
(airport name) (time of report if more than one hour old) **ALTIMETER** (setting).

3. If a request for the altimeter setting in **MILLIBARS** is received, announce the separate digits of the millibar equivalent value, using the millibar conversion chart, followed by the word **MILLIBARS**. If the millibar setting is not a whole number, always round down. (See TBL 14-1-16.)

REFERENCE-
FAAO JO 7110.10, subpara 4-3-5f.

**TBL 14-1-16
Millibar Conversion**

<i>Millibar Conversion</i>	<i>Phraseology</i>
956.3	“Altimeter niner five six millibars.”
1002.0	“Altimeter one zero zero two millibars.”
1058.9	“Altimeter one zero five eight millibars.”

4. When altimeter is in excess of 31.00:

(a) Advise all aircraft.

PHRASEOLOGY-
“**ALTIMETER IN EXCESS OF THREE ONE ZERO ZERO. HIGH PRESSURE ALTIMETER PROCEDURES ARE IN EFFECT.**”

(b) Advise VFR aircraft to set altimeter to 31.00 en route.

PHRASEOLOGY-
“**RECOMMEND YOU SET ALTIMETER THREE ONE ZERO ZERO EN ROUTE.**”

14-1-9. WEATHER REMARKS

Announce pertinent remarks from surface weather observations in accordance with FAAO JO 7340.2, Contractions, and as shown in the following tables. Do not state additive data or other information intended for NWS analysis or processing that does not contribute to the description of the conditions occurring at the station.

a. **SKY AND CEILING.** (See TBL 14-1-17.)

**TBL 14-1-17
Sky and Ceiling**

<i>Contraction</i>	<i>Phraseology</i>
CIG 005V010	“Ceiling variable between five hundred and one thousand.”
CIG 020 RY11	“Ceiling two thousand at runway one one.”
CB N MOV E	“Cumulonimbus north moving east.”
CBMAM DSNT S	“Cumulonimbus mammatus distant south.”
CLDS TPG MT SW	“Clouds topping mountain southwest.”
CONTRAILS N FL420	“Condensation trails north at flight level four two zero.”
FRQ LTCIC VC	“Frequent lightning in cloud in the vicinity.”
LWR CLDS NE	“Lower clouds northeast.”
OCNL LTGICCG NW	“Occasional lightning in cloud and cloud to ground northwest.”
RDGS OBSCD W-N	“Ridges obscured west through north.”

b. **Obscuring Phenomena.** (See TBL 14-1-18.)

TBL 14-1-49

Speed

<i>Mach Number</i>	<i>Phraseology</i>
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 14-1-50.)

TBL 14-1-50

Miles

<i>Miles</i>	<i>Phraseology</i>
30	“Three zero miles.”

14-1-14. 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. FAA Automated Flight Service Stations/Flight Service Stations.

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

EXAMPLE-

“Fairbanks Radio.”
 “Fort Dodge Radio, Inflight 2.”

2. Flight Watch position. State the name of the associated ARTCC followed by the words FLIGHT WATCH.

EXAMPLE-

“Indianapolis Flight Watch.”

NOTE-

During transition to EFAS consolidation, nonconsolidated facilities will state the name of the parent AFSS facility followed by the words FLIGHT WATCH.

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

EXAMPLE-

“San Angelo Radio.”

4. When answering public access telephone lines, state the geographical name of the AFSS/FSS and the words Flight Service.

EXAMPLE-

“Burlington Flight Service.”
 “Miami 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.”

14-1-15. 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.”
 “Commuter Six Eleven.”
 “General Motors Thirty-Fifteen.”
 “Eastern Ten Zero Four.”
 “Delta One Hundred.”

2. If aircraft identification becomes a problem, the call sign shall 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-

FAAO JO 7210.3, Para 2-1-2, Facility Standard Operation Procedures Directive.

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. Lifeguard aircraft.

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

EXAMPLE-

“LIFEGUARD Delta Fifty-One.”

NOTE-

Usage of LIFEGUARD call sign indicates that operational priority is requested.

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

EXAMPLE-

“LIFEGUARD 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 a maximum of the last five digits of the serial number.

EXAMPLE-

“Air Guard Copter 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 shall be restated after the flight number of the aircraft involved.

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 by a maximum of the last five 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. U-S-SAM.

EXAMPLE-

“U-S-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

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

a. Terms Added:

AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) - ALASKA FSS ONLY

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

landmark, a certain point of a Federal airway in mountainous terrain, or an obstruction.

(See AIRPORT ROTATING BEACON.)

(Refer to AIM.)

AERONAUTICAL CHART- A map used in air navigation containing all or part of the following: topographic features, hazards and obstructions, navigation aids, navigation routes, designated airspace, and airports. Commonly used aeronautical charts are:

a. Sectional Aeronautical Charts (1:500,000)- Designed for visual navigation of slow or medium speed aircraft. Topographic information on these charts features the portrayal of relief and a judicious selection of visual check points for VFR flight. Aeronautical information includes visual and radio aids to navigation, airports, controlled airspace, restricted areas, obstructions, and related data.

b. VFR Terminal Area Charts (1:250,000)- Depict Class B airspace which provides for the control or segregation of all the aircraft within Class B airspace. The chart depicts topographic information and aeronautical information which includes visual and radio aids to navigation, airports, controlled airspace, restricted areas, obstructions, and related data.

c. World Aeronautical Charts (WAC) (1:1,000,000)- Provide a standard series of aeronautical charts covering land areas of the world at a size and scale convenient for navigation by moderate speed aircraft. Topographic information includes cities and towns, principal roads, railroads, distinctive landmarks, drainage, and relief. Aeronautical information includes visual and radio aids to navigation, airports, airways, restricted areas, obstructions, and other pertinent data.

d. En Route Low Altitude Charts- Provide aeronautical information for en route instrument navigation (IFR) in the low altitude stratum. Information includes the portrayal of airways, limits of controlled airspace, position identification and frequencies of radio aids, selected airports, minimum en route and minimum obstruction clearance altitudes, airway distances, reporting points, restricted areas, and related data. Area charts, which are a part of this series, furnish terminal data at a larger scale in congested areas.

e. En Route High Altitude Charts- Provide aeronautical information for en route instrument

navigation (IFR) in the high altitude stratum. Information includes the portrayal of jet routes, identification and frequencies of radio aids, selected airports, distances, time zones, special use airspace, and related information.

f. Instrument Approach Procedures (IAP) Charts- Portray the aeronautical data which is required to execute an instrument approach to an airport. These charts depict the procedures, including all related data, and the airport diagram. Each procedure is designated for use with a specific type of electronic navigation system including NDB, TACAN, VOR, ILS/MLS, and RNAV. These charts are identified by the type of navigational aid(s) which provide final approach guidance.

g. Instrument Departure Procedure (DP) Charts- Designed to expedite clearance delivery and to facilitate transition between takeoff and en route operations. Each DP is presented as a separate chart and may serve a single airport or more than one airport in a given geographical location.

h. Standard Terminal Arrival (STAR) Charts- Designed to expedite air traffic control arrival procedures and to facilitate transition between en route and instrument approach operations. Each STAR procedure is presented as a separate chart and may serve a single airport or more than one airport in a given geographical location.

i. Airport Taxi Charts- Designed to expedite the efficient and safe flow of ground traffic at an airport. These charts are identified by the official airport name; e.g., Ronald Reagan Washington National Airport.

(See ICAO term AERONAUTICAL CHART.)

AERONAUTICAL CHART [ICAO]- A representation of a portion of the earth, its culture and relief, specifically designated to meet the requirements of air navigation.

AERONAUTICAL INFORMATION MANUAL (AIM)- A primary FAA publication whose purpose is to instruct airmen about operating in the National Airspace System of the U.S. It provides basic flight information, ATC Procedures and general instructional information concerning health, medical facts, factors affecting flight safety, accident and hazard reporting, and types of aeronautical charts and their use.

AERONAUTICAL INFORMATION PUBLICATION (AIP) [ICAO]- A publication issued by or with

the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

A/FD-

(See AIRPORT/FACILITY DIRECTORY.)

AFFIRMATIVE- Yes.

AFIS-

(See AUTOMATIC FLIGHT INFORMATION SERVICE - ALASKA FSSs ONLY.)

AFP-

(See AIRSPACE FLOW PROGRAM.)

AIM-

(See AERONAUTICAL INFORMATION MANUAL.)

AIP [ICAO]-

(See ICAO term AERONAUTICAL INFORMATION PUBLICATION.)

AIR CARRIER DISTRICT OFFICE- An FAA field office serving an assigned geographical area, staffed with Flight Standards personnel serving the aviation industry and the general public on matters related to the certification and operation of scheduled air carriers and other large aircraft operations.

AIR DEFENSE EMERGENCY- A military emergency condition declared by a designated authority. This condition exists when an attack upon the continental U.S., Alaska, Canada, or U.S. installations in Greenland by hostile aircraft or missiles is considered probable, is imminent, or is taking place.

(Refer to AIM.)

AIR DEFENSE IDENTIFICATION ZONE (ADIZ)- The area of airspace over land or water, extending upward from the surface, within which the ready identification, the location, and the control of aircraft are required in the interest of national security.

a. Domestic Air Defense Identification Zone. An ADIZ within the United States along an international boundary of the United States.

b. Coastal Air Defense Identification Zone. An ADIZ over the coastal waters of the United States.

c. Distant Early Warning Identification Zone (DEWIZ). An ADIZ over the coastal waters of the State of Alaska.

d. Land-Based Air Defense Identification Zone. An ADIZ over U.S. metropolitan areas, which is activated and deactivated as needed, with dimensions, activation dates and other relevant information disseminated via NOTAM.

Note: ADIZ locations and operating and flight plan requirements for civil aircraft operations are specified in 14 CFR Part 99.

(Refer to AIM.)

AIR NAVIGATION FACILITY- Any facility used in, available for use in, or designed for use in, aid of air navigation, including landing areas, lights, any apparatus or equipment for disseminating weather information, for signaling, for radio-directional finding, or for radio or other electrical communication, and any other structure or mechanism having a similar purpose for guiding or controlling flight in the air or the landing and takeoff of aircraft.

(See NAVIGATIONAL AID.)

AIR ROUTE SURVEILLANCE RADAR- Air route traffic control center (ARTCC) radar used primarily to detect and display an aircraft's position while en route between terminal areas. The ARSR enables controllers to provide radar air traffic control service when aircraft are within the ARSR coverage. In some instances, ARSR may enable an ARTCC to provide terminal radar services similar to but usually more limited than those provided by a radar approach control.

AIR ROUTE TRAFFIC CONTROL CENTER- A facility established to provide air traffic control service to aircraft operating on IFR flight plans within controlled airspace and principally during the en route phase of flight. When equipment capabilities and controller workload permit, certain advisory/assistance services may be provided to VFR aircraft.

(See EN ROUTE AIR TRAFFIC CONTROL SERVICES.)

(Refer to AIM.)

AIR TAXI- Used to describe a helicopter/VTOL aircraft movement conducted above the surface but normally not above 100 feet AGL. The aircraft may proceed either via hover taxi or flight at speeds more than 20 knots. The pilot is solely responsible for selecting a safe airspeed/altitude for the operation being conducted.

(See HOVER TAXI.)

(Refer to AIM.)

AIR TRAFFIC- Aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.

(See ICAO term AIR TRAFFIC.)

AIR TRAFFIC [ICAO]- All aircraft in flight or operating on the maneuvering area of an aerodrome.

AIR TRAFFIC CLEARANCE- An authorization by air traffic control for the purpose of preventing collision between known aircraft, for an aircraft to proceed under specified traffic conditions within controlled airspace. The pilot-in-command of an aircraft may not deviate from the provisions of a visual flight rules (VFR) or instrument flight rules (IFR) air traffic clearance except in an emergency or unless an amended clearance has been obtained. Additionally, the pilot may request a different clearance from that which has been issued by air traffic control (ATC) if information available to the pilot makes another course of action more practicable or if aircraft equipment limitations or company procedures forbid compliance with the clearance issued. Pilots may also request clarification or amendment, as appropriate, any time a clearance is not fully understood, or considered unacceptable because of safety of flight. Controllers should, in such instances and to the extent of operational practicality and safety, honor the pilot's request. 14 CFR Part 91.3(a) states: "The pilot in command of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft." **THE PILOT IS RESPONSIBLE TO REQUEST AN AMENDED CLEARANCE** if ATC issues a clearance that would cause a pilot to deviate from a rule or regulation, or in the pilot's opinion, would place the aircraft in jeopardy.

(See ATC INSTRUCTIONS.)

(See ICAO term AIR TRAFFIC CONTROL CLEARANCE.)

AIR TRAFFIC CONTROL- A service operated by appropriate authority to promote the safe, orderly and expeditious flow of air traffic.

(See ICAO term AIR TRAFFIC CONTROL SERVICE.)

AIR TRAFFIC CONTROL CLEARANCE [ICAO]- Authorization for an aircraft to proceed under conditions specified by an air traffic control unit.

Note 1: For convenience, the term air traffic control clearance is frequently abbreviated to clearance when used in appropriate contexts.

Note 2: The abbreviated term clearance may be prefixed by the words taxi, takeoff, departure, en route, approach or landing to indicate the particular portion of flight to which the air traffic control clearance relates.

AIR TRAFFIC CONTROL SERVICE-

(See AIR TRAFFIC CONTROL.)

AIR TRAFFIC CONTROL SERVICE [ICAO]- A service provided for the purpose of:

a. Preventing collisions:

1. Between aircraft; and

2. On the maneuvering area between aircraft and obstructions.

b. Expediting and maintaining an orderly flow of air traffic.

AIR TRAFFIC CONTROL SPECIALIST- A person authorized to provide air traffic control service.

(See AIR TRAFFIC CONTROL.)

(See FLIGHT SERVICE STATION.)

(See ICAO term CONTROLLER.)

AIR TRAFFIC CONTROL SYSTEM COMMAND CENTER (ATCSCC) - An Air Traffic Tactical Operations facility responsible for monitoring and managing the flow of air traffic throughout the NAS, producing a safe, orderly, and expeditious flow of traffic while minimizing delays. The following functions are located at the ATCSCC:

a. Central Altitude Reservation Function (CARF). Responsible for coordinating, planning, and approving special user requirements under the Altitude Reservation (ALTRV) concept.

(See ALTITUDE RESERVATION.)

b. Airport Reservation Office (ARO). Responsible for approving IFR flights at designated high density traffic airports (John F. Kennedy, LaGuardia, and Ronald Reagan Washington National) during specified hours.

(Refer to 14 CFR Part 93.)

(Refer to AIRPORT/FACILITY DIRECTORY.)

c. U.S. Notice to Airmen (NOTAM) Office. Responsible for collecting, maintaining, and distributing NOTAMs for the U.S. civilian and military, as well as international aviation communities.

(See NOTICE TO AIRMEN.)

d. Weather Unit. Monitor all aspects of weather for the U.S. that might affect aviation including cloud cover, visibility, winds, precipitation, thunderstorms, icing, turbulence, and more. Provide forecasts based on observations and on discussions with meteorologists from various National Weather Service offices, FAA facilities, airlines, and private weather services.

AIR TRAFFIC SERVICE- A generic term meaning:

- a. Flight Information Service.**
- b. Alerting Service.**
- c. Air Traffic Advisory Service.**
- d. Air Traffic Control Service:**
 - 1. Area Control Service,**
 - 2. Approach Control Service, or**
 - 3. Airport Control Service.**

AIR TRAFFIC SERVICE (ATS) ROUTES - The term "ATS Route" is a generic term that includes "VOR Federal airways," "colored Federal airways," "jet routes," and "RNAV routes." The term "ATS route" does not replace these more familiar route names, but serves only as an overall title when listing the types of routes that comprise the United States route structure.

AIRBORNE DELAY- Amount of delay to be encountered in airborne holding.

AIRCRAFT- Device(s) that are used or intended to be used for flight in the air, and when used in air traffic control terminology, may include the flight crew.

(See ICAO term AIRCRAFT.)

AIRCRAFT [ICAO]- Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

AIRCRAFT APPROACH CATEGORY- A grouping of aircraft based on a speed of 1.3 times the stall speed in the landing configuration at maximum gross landing weight. An aircraft must fit in only one category. If it is necessary to maneuver at speeds in excess of the upper limit of a speed range for a category, the minimums for the category for that speed must be used. For example, an aircraft which

falls in Category A, but is circling to land at a speed in excess of 91 knots, must use the approach Category B minimums when circling to land. The categories are as follows:

- a. Category A-** Speed less than 91 knots.
- b. Category B-** Speed 91 knots or more but less than 121 knots.
- c. Category C-** Speed 121 knots or more but less than 141 knots.
- d. Category D-** Speed 141 knots or more but less than 166 knots.
- e. Category E-** Speed 166 knots or more.
(Refer to 14 CFR Part 97.)

AIRCRAFT CLASSES- For the purposes of Wake Turbulence Separation Minima, ATC classifies aircraft as Heavy, Large, and Small as follows:

- a. Heavy-** Aircraft capable of takeoff weights of more than 255,000 pounds whether or not they are operating at this weight during a particular phase of flight.
- b. Large-** Aircraft of more than 41,000 pounds, maximum certificated takeoff weight, up to 255,000 pounds.
- c. Small-** Aircraft of 41,000 pounds or less maximum certificated takeoff weight.
(Refer to AIM.)

AIRCRAFT CONFLICT- Predicted conflict, within URET, of two aircraft, or between aircraft and airspace. A Red alert is used for conflicts when the predicted minimum separation is 5 nautical miles or less. A Yellow alert is used when the predicted minimum separation is between 5 and approximately 12 nautical miles. A Blue alert is used for conflicts between an aircraft and predefined airspace.

(See USER REQUEST EVALUATION TOOL.)

AIRCRAFT LIST (ACL)- A view available with URET that lists aircraft currently in or predicted to be in a particular sector's airspace. The view contains textual flight data information in line format and may be sorted into various orders based on the specific needs of the sector team.

(See USER REQUEST EVALUATION TOOL.)

AIRCRAFT SURGE LAUNCH AND RECOVERY- Procedures used at USAF bases to provide increased launch and recovery rates in instrument flight rules conditions. ASLAR is based on:

a. Reduced separation between aircraft which is based on time or distance. Standard arrival separation applies between participants including multiple flights until the DRAG point. The DRAG point is a published location on an ASLAR approach where aircraft landing second in a formation slows to a predetermined airspeed. The DRAG point is the reference point at which MARSAs apply as expanding elements effect separation within a flight or between subsequent participating flights.

b. ASLAR procedures shall be covered in a Letter of Agreement between the responsible USAF military ATC facility and the concerned Federal Aviation Administration facility. Initial Approach Fix spacing requirements are normally addressed as a minimum.

AIRMEN'S METEOROLOGICAL INFORMATION-

(See AIRMET.)

AIRMET- In-flight weather advisories issued only to amend the area forecast concerning weather phenomena which are of operational interest to all aircraft and potentially hazardous to aircraft having limited capability because of lack of equipment, instrumentation, or pilot qualifications. AIRMETs concern weather of less severity than that covered by SIGMETs or Convective SIGMETs. AIRMETs cover moderate icing, moderate turbulence, sustained winds of 30 knots or more at the surface, widespread areas of ceilings less than 1,000 feet and/or visibility less than 3 miles, and extensive mountain obscurement.

(See AWW.)

(See CONVECTIVE SIGMET.)

(See CWA.)

(See SIGMET.)

(Refer to AIM.)

AIRPORT- An area on land or water that is used or intended to be used for the landing and takeoff of aircraft and includes its buildings and facilities, if any.

AIRPORT ADVISORY AREA- The area within ten miles of an airport without a control tower or where the tower is not in operation, and on which a Flight Service Station is located.

(See LOCAL AIRPORT ADVISORY.)

(Refer to AIM.)

AIRPORT ARRIVAL RATE (AAR)- A dynamic input parameter specifying the number of arriving aircraft which an airport or airspace can accept from the ARTCC per hour. The AAR is used to calculate the desired interval between successive arrival aircraft.

AIRPORT DEPARTURE RATE (ADR)- A dynamic parameter specifying the number of aircraft which can depart an airport and the airspace can accept per hour.

AIRPORT ELEVATION- The highest point of an airport's usable runways measured in feet from mean sea level.

(See TOUCHDOWN ZONE ELEVATION.)

(See ICAO term AERODROME ELEVATION.)

AIRPORT/FACILITY DIRECTORY- A publication designed primarily as a pilot's operational manual containing all airports, seaplane bases, and heliports open to the public including communications data, navigational facilities, and certain special notices and procedures. This publication is issued in seven volumes according to geographical area.

AIRPORT LIGHTING- Various lighting aids that may be installed on an airport. Types of airport lighting include:

a. **Approach Light System (ALS)-** An airport lighting facility which provides visual guidance to landing aircraft by radiating light beams in a directional pattern by which the pilot aligns the aircraft with the extended centerline of the runway on his/her final approach for landing. Condenser-Discharge Sequential Flashing Lights/Sequenced Flashing Lights may be installed in conjunction with the ALS at some airports. Types of Approach Light Systems are:

1. **ALSF-1-** Approach Light System with Sequenced Flashing Lights in ILS Cat-I configuration.

2. **ALSF-2-** Approach Light System with Sequenced Flashing Lights in ILS Cat-II configuration. The ALSF-2 may operate as an SSALR when weather conditions permit.

3. **SSALF-** Simplified Short Approach Light System with Sequenced Flashing Lights.

4. **SSALR-** Simplified Short Approach Light System with Runway Alignment Indicator Lights.

5. **MALSF-** Medium Intensity Approach Light System with Sequenced Flashing Lights.

6. MALSR- Medium Intensity Approach Light System with Runway Alignment Indicator Lights.

7. LDIN- Lead-in-light system- Consists of one or more series of flashing lights installed at or near ground level that provides positive visual guidance along an approach path, either curving or straight, where special problems exist with hazardous terrain, obstructions, or noise abatement procedures.

8. RAIL- Runway Alignment Indicator Lights- Sequenced Flashing Lights which are installed only in combination with other light systems.

9. ODALS- Omnidirectional Approach Lighting System consists of seven omnidirectional flashing lights located in the approach area of a nonprecision runway. Five lights are located on the runway centerline extended with the first light located 300 feet from the threshold and extending at equal intervals up to 1,500 feet from the threshold. The other two lights are located, one on each side of the runway threshold, at a lateral distance of 40 feet from the runway edge, or 75 feet from the runway edge when installed on a runway equipped with a VASI.

(Refer to FAAO JO 6850.2, VISUAL GUIDANCE LIGHTING SYSTEMS.)

b. Runway Lights/Runway Edge Lights- Lights having a prescribed angle of emission used to define the lateral limits of a runway. Runway lights are uniformly spaced at intervals of approximately 200 feet, and the intensity may be controlled or preset.

c. Touchdown Zone Lighting- Two rows of transverse light bars located symmetrically about the runway centerline normally at 100 foot intervals. The basic system extends 3,000 feet along the runway.

d. Runway Centerline Lighting- Flush centerline lights spaced at 50-foot intervals beginning 75 feet from the landing threshold and extending to within 75 feet of the opposite end of the runway.

e. Threshold Lights- Fixed green lights arranged symmetrically left and right of the runway centerline, identifying the runway threshold.

f. Runway End Identifier Lights (REIL)- Two synchronized flashing lights, one on each side of the runway threshold, which provide rapid and positive identification of the approach end of a particular runway.

g. Visual Approach Slope Indicator (VASI)- An airport lighting facility providing vertical visual

approach slope guidance to aircraft during approach to landing by radiating a directional pattern of high intensity red and white focused light beams which indicate to the pilot that he/she is "on path" if he/she sees red/white, "above path" if white/white, and "below path" if red/red. Some airports serving large aircraft have three-bar VASIs which provide two visual glide paths to the same runway.

h. Precision Approach Path Indicator (PAPI)- An airport lighting facility, similar to VASI, providing vertical approach slope guidance to aircraft during approach to landing. PAPIs consist of a single row of either two or four lights, normally installed on the left side of the runway, and have an effective visual range of about 5 miles during the day and up to 20 miles at night. PAPIs radiate a directional pattern of high intensity red and white focused light beams which indicate that the pilot is "on path" if the pilot sees an equal number of white lights and red lights, with white to the left of the red; "above path" if the pilot sees more white than red lights; and "below path" if the pilot sees more red than white lights.

i. Boundary Lights- Lights defining the perimeter of an airport or landing area.

(Refer to AIM.)

AIRPORT MARKING AIDS- Markings used on runway and taxiway surfaces to identify a specific runway, a runway threshold, a centerline, a hold line, etc. A runway should be marked in accordance with its present usage such as:

- a. Visual.**
 - b. Nonprecision instrument.**
 - c. Precision instrument.**
- (Refer to AIM.)

AIRPORT REFERENCE POINT (ARP)- The approximate geometric center of all usable runway surfaces.

AIRPORT RESERVATION OFFICE- Office responsible for monitoring the operation of the high density rule. Receives and processes requests for IFR-operations at high density traffic airports.

AIRPORT ROTATING BEACON- A visual NAVAID operated at many airports. At civil airports, alternating white and green flashes indicate the location of the airport. At military airports, the beacons flash alternately white and green, but are

differentiated from civil beacons by dualpeaked (two quick) white flashes between the green flashes.

(See INSTRUMENT FLIGHT RULES.)

(See SPECIAL VFR OPERATIONS.)

(See ICAO term AERODROME BEACON.)

(Refer to AIM.)

AIRPORT STREAM FILTER (ASF)- An on/off filter that allows the conflict notification function to be inhibited for arrival streams into single or multiple airports to prevent nuisance alerts.

AIRPORT SURFACE DETECTION EQUIPMENT (ASDE)- Surveillance equipment specifically designed to detect aircraft, vehicular traffic, and other objects, on the surface of an airport, and to present the image on a tower display. Used to augment visual observation by tower personnel of aircraft and/or vehicular movements on runways and taxiways. There are three ASDE systems deployed in the NAS:

a. ASDE-3- a Surface Movement Radar.

b. ASDE-X- a system that uses a X-band Surface Movement Radar and multilateration. Data from these two sources are fused and presented on a digital display.

c. ASDE-3X- an ASDE-X system that uses the ASDE-3 Surface Movement Radar.

AIRPORT SURVEILLANCE RADAR- Approach control radar used to detect and display an aircraft's position in the terminal area. ASR provides range and azimuth information but does not provide elevation data. Coverage of the ASR can extend up to 60 miles.

AIRPORT TAXI CHARTS-

(See AERONAUTICAL CHART.)

AIRPORT TRAFFIC CONTROL SERVICE- A service provided by a control tower for aircraft operating on the movement area and in the vicinity of an airport.

(See MOVEMENT AREA.)

(See TOWER.)

(See ICAO term AERODROME CONTROL SERVICE.)

AIRPORT TRAFFIC CONTROL TOWER-

(See TOWER.)

AIRSPACE CONFLICT- Predicted conflict of an aircraft and active Special Activity Airspace (SAA).

AIRSPACE FLOW PROGRAM (AFP)- AFP is a Traffic Management (TM) process administered by

the Air Traffic Control System Command Center (ATCSCC) where aircraft are assigned an Expect Departure Clearance Time (EDCT) in order to manage capacity and demand for a specific area of the National Airspace System (NAS). The purpose of the program is to mitigate the effects of en route constraints. It is a flexible program and may be implemented in various forms depending upon the needs of the air traffic system.

AIRSPACE HIERARCHY- Within the airspace classes, there is a hierarchy and, in the event of an overlap of airspace: Class A preempts Class B, Class B preempts Class C, Class C preempts Class D, Class D preempts Class E, and Class E preempts Class G.

AIRSPEED- The speed of an aircraft relative to its surrounding air mass. The unqualified term "airspeed" means one of the following:

a. Indicated Airspeed- The speed shown on the aircraft airspeed indicator. This is the speed used in pilot/controller communications under the general term "airspeed."

(Refer to 14 CFR Part 1.)

b. True Airspeed- The airspeed of an aircraft relative to undisturbed air. Used primarily in flight planning and en route portion of flight. When used in pilot/controller communications, it is referred to as "true airspeed" and not shortened to "airspeed."

AIRSTART- The starting of an aircraft engine while the aircraft is airborne, preceded by engine shutdown during training flights or by actual engine failure.

AIRWAY- A Class E airspace area established in the form of a corridor, the centerline of which is defined by radio navigational aids.

(See FEDERAL AIRWAYS.)

(See ICAO term AIRWAY.)

(Refer to 14 CFR Part 71.)

(Refer to AIM.)

AIRWAY [ICAO]- A control area or portion thereof established in the form of corridor equipped with radio navigational aids.

AIRWAY BEACON- Used to mark airway segments in remote mountain areas. The light flashes Morse Code to identify the beacon site.

(Refer to AIM.)

AIT-

(See AUTOMATED INFORMATION TRANSFER.)

ALERFA (Alert Phase) [ICAO]- A situation wherein apprehension exists as to the safety of an aircraft and its occupants.

ALERT- A notification to a position that there is an aircraft-to-aircraft or aircraft-to-airspace conflict, as detected by Automated Problem Detection (APD).

ALERT AREA-

(See SPECIAL USE AIRSPACE.)

ALERT NOTICE- A request originated by a flight service station (FSS) or an air route traffic control center (ARTCC) for an extensive communication search for overdue, unreported, or missing aircraft.

ALERTING SERVICE- A service provided to notify appropriate organizations regarding aircraft in need of search and rescue aid and assist such organizations as required.

ALNOT-

(See ALERT NOTICE.)

ALONG-TRACK DISTANCE (ATD)- The distance measured from a point-in-space by systems using area navigation reference capabilities that are not subject to slant range errors.

ALPHANUMERIC DISPLAY- Letters and numerals used to show identification, altitude, beacon code, and other information concerning a target on a radar display.

(See AUTOMATED RADAR TERMINAL SYSTEMS.)

ALTERNATE AERODROME [ICAO]- An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing.

Note: The aerodrome from which a flight departs may also be an en-route or a destination alternate aerodrome for the flight.

ALTERNATE AIRPORT- An airport at which an aircraft may land if a landing at the intended airport becomes inadvisable.

(See ICAO term ALTERNATE AERODROME.)

ALTIMETER SETTING- The barometric pressure reading used to adjust a pressure altimeter for variations in existing atmospheric pressure or to the standard altimeter setting (29.92).

(Refer to 14 CFR Part 91.)

(Refer to AIM.)

ALTITUDE- The height of a level, point, or object measured in feet Above Ground Level (AGL) or from Mean Sea Level (MSL).

(See FLIGHT LEVEL.)

a. MSL Altitude- Altitude expressed in feet measured from mean sea level.

b. AGL Altitude- Altitude expressed in feet measured above ground level.

c. Indicated Altitude- The altitude as shown by an altimeter. On a pressure or barometric altimeter it is altitude as shown uncorrected for instrument error and uncompensated for variation from standard atmospheric conditions.

(See ICAO term ALTITUDE.)

ALTITUDE [ICAO]- The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).

ALTITUDE READOUT- An aircraft's altitude, transmitted via the Mode C transponder feature, that is visually displayed in 100-foot increments on a radar scope having readout capability.

(See ALPHANUMERIC DISPLAY.)

(See AUTOMATED RADAR TERMINAL SYSTEMS.)

(Refer to AIM.)

ALTITUDE RESERVATION- Airspace utilization under prescribed conditions normally employed for the mass movement of aircraft or other special user requirements which cannot otherwise be accomplished. ALTRVs are approved by the appropriate FAA facility.

(See AIR TRAFFIC CONTROL SYSTEM COMMAND CENTER.)

ALTITUDE RESTRICTION- An altitude or altitudes, stated in the order flown, which are to be maintained until reaching a specific point or time. Altitude restrictions may be issued by ATC due to traffic, terrain, or other airspace considerations.

ALTITUDE RESTRICTIONS ARE CANCELED-

Adherence to previously imposed altitude restrictions is no longer required during a climb or descent.

ALTRV-

(See ALTITUDE RESERVATION.)

AMVER-

(See AUTOMATED MUTUAL-ASSISTANCE VESSEL RESCUE SYSTEM.)

APB-

(See AUTOMATED PROBLEM DETECTION BOUNDARY.)

APD-

(See AUTOMATED PROBLEM DETECTION.)

APDIA-

(See AUTOMATED PROBLEM DETECTION INHIBITED AREA.)

APPROACH CLEARANCE- Authorization by ATC for a pilot to conduct an instrument approach. The type of instrument approach for which a clearance and other pertinent information is provided in the approach clearance when required.

(See CLEARED APPROACH.)

(See INSTRUMENT APPROACH PROCEDURE.)

(Refer to AIM.)

(Refer to 14 CFR Part 91.)

APPROACH CONTROL FACILITY- A terminal ATC facility that provides approach control service in a terminal area.

(See APPROACH CONTROL SERVICE.)

(See RADAR APPROACH CONTROL FACILITY.)

APPROACH CONTROL SERVICE- Air traffic control service provided by an approach control facility for arriving and departing VFR/IFR aircraft and, on occasion, en route aircraft. At some airports not served by an approach control facility, the ARTCC provides limited approach control service.

(See ICAO term APPROACH CONTROL SERVICE.)

(Refer to AIM.)

APPROACH CONTROL SERVICE [ICAO]- Air traffic control service for arriving or departing controlled flights.

APPROACH GATE- An imaginary point used within ATC as a basis for vectoring aircraft to the final approach course. The gate will be established along the final approach course 1 mile from the final approach fix on the side away from the airport and will be no closer than 5 miles from the landing threshold.

APPROACH LIGHT SYSTEM-

(See AIRPORT LIGHTING.)

APPROACH SEQUENCE- The order in which aircraft are positioned while on approach or awaiting approach clearance.

(See LANDING SEQUENCE.)

(See ICAO term APPROACH SEQUENCE.)

APPROACH SEQUENCE [ICAO]- The order in which two or more aircraft are cleared to approach to land at the aerodrome.

APPROACH SPEED- The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration.

APPROPRIATE ATS AUTHORITY [ICAO]- The relevant authority designated by the State responsible for providing air traffic services in the airspace concerned. In the United States, the “appropriate ATS authority” is the Program Director for Air Traffic Planning and Procedures, ATP-1.

APPROPRIATE AUTHORITY-

a. Regarding flight over the high seas: the relevant authority is the State of Registry.

b. Regarding flight over other than the high seas: the relevant authority is the State having sovereignty over the territory being overflown.

APPROPRIATE OBSTACLE CLEARANCE MINIMUM ALTITUDE- Any of the following:

(See MINIMUM EN ROUTE IFR ALTITUDE.)

(See MINIMUM IFR ALTITUDE.)

(See MINIMUM OBSTRUCTION CLEARANCE ALTITUDE.)

(See MINIMUM VECTORING ALTITUDE.)

APPROPRIATE TERRAIN CLEARANCE MINIMUM ALTITUDE- Any of the following:

(See MINIMUM EN ROUTE IFR ALTITUDE.)

(See MINIMUM IFR ALTITUDE.)

(See MINIMUM OBSTRUCTION CLEARANCE ALTITUDE.)

(See MINIMUM VECTORING ALTITUDE.)

APRON- A defined area on an airport or heliport intended to accommodate aircraft for purposes of loading or unloading passengers or cargo, refueling, parking, or maintenance. With regard to seaplanes, a ramp is used for access to the apron from the water.

(See ICAO term APRON.)

APRON [ICAO]- A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, refueling, parking or maintenance.

ARC- The track over the ground of an aircraft flying at a constant distance from a navigational aid by reference to distance measuring equipment (DME).

AREA CONTROL CENTER [ICAO]- An air traffic control facility primarily responsible for ATC services being provided IFR aircraft during the en route phase of flight. The U.S. equivalent facility is an air route traffic control center (ARTCC).

AREA NAVIGATION- Area Navigation (RNAV) provides enhanced navigational capability to the pilot. RNAV equipment can compute the airplane position, actual track and ground speed and then provide meaningful information relative to a route of flight selected by the pilot. Typical equipment will provide the pilot with distance, time, bearing and crosstrack error relative to the selected "TO" or "active" waypoint and the selected route. Several distinctly different navigational systems with different navigational performance characteristics are capable of providing area navigational functions. Present day RNAV includes INS, LORAN, VOR/DME, and GPS systems. Modern multi-sensor systems can integrate one or more of the above systems to provide a more accurate and reliable navigational system. Due to the different levels of performance, area navigational capabilities can satisfy different levels of required navigational performance (RNP). The major types of equipment are:

a. VORTAC referenced or Course Line Computer (CLC) systems, which account for the greatest number of RNAV units in use. To function, the CLC must be within the service range of a VORTAC.

b. OMEGA/VLF, although two separate systems, can be considered as one operationally. A long-range navigation system based upon Very Low Frequency radio signals transmitted from a total of 17 stations worldwide.

c. Inertial (INS) systems, which are totally self-contained and require no information from external references. They provide aircraft position and navigation information in response to signals resulting from inertial effects on components within the system.

d. MLS Area Navigation (MLS/RNAV), which provides area navigation with reference to an MLS ground facility.

e. LORAN-C is a long-range radio navigation system that uses ground waves transmitted at low frequency to provide user position information at ranges of up to 600 to 1,200 nautical miles at both en route and approach altitudes. The usable signal

coverage areas are determined by the signal-to-noise ratio, the envelope-to-cycle difference, and the geometric relationship between the positions of the user and the transmitting stations.

f. GPS is a space-base radio positioning, navigation, and time-transfer system. The system provides highly accurate position and velocity information, and precise time, on a continuous global basis, to an unlimited number of properly equipped users. The system is unaffected by weather, and provides a worldwide common grid reference system.

(See ICAO term AREA NAVIGATION.)

AREA NAVIGATION [ICAO]- A method of navigation which permits aircraft operation on any desired flight path within the coverage of station-referenced navigation aids or within the limits of the capability of self-contained aids, or a combination of these.

AREA NAVIGATION (RNAV) APPROACH CONFIGURATION:

a. STANDARD T- An RNAV approach whose design allows direct flight to any one of three initial approach fixes (IAF) and eliminates the need for procedure turns. The standard design is to align the procedure on the extended centerline with the missed approach point (MAP) at the runway threshold, the final approach fix (FAF), and the initial approach/intermediate fix (IAF/IF). The other two IAFs will be established perpendicular to the IF.

b. MODIFIED T- An RNAV approach design for single or multiple runways where terrain or operational constraints do not allow for the standard T. The "T" may be modified by increasing or decreasing the angle from the corner IAF(s) to the IF or by eliminating one or both corner IAFs.

c. STANDARD I- An RNAV approach design for a single runway with both corner IAFs eliminated. Course reversal or radar vectoring may be required at busy terminals with multiple runways.

d. TERMINAL ARRIVAL AREA (TAA)- The TAA is controlled airspace established in conjunction with the Standard or Modified T and I RNAV approach configurations. In the standard TAA, there are three areas: straight-in, left base, and right base. The arc boundaries of the three areas of the TAA are published portions of the approach and allow aircraft to transition from the en route structure direct to the nearest IAF. TAAs will also eliminate or reduce

feeder routes, departure extensions, and procedure turns or course reversal.

1. STRAIGHT-IN AREA- A 30NM arc centered on the IF bounded by a straight line extending through the IF perpendicular to the intermediate course.

2. LEFT BASE AREA- A 30NM arc centered on the right corner IAF. The area shares a boundary with the straight-in area except that it extends out for 30NM from the IAF and is bounded on the other side by a line extending from the IF through the FAF to the arc.

3. RIGHT BASE AREA- A 30NM arc centered on the left corner IAF. The area shares a boundary with the straight-in area except that it extends out for 30NM from the IAF and is bounded on the other side by a line extending from the IF through the FAF to the arc.

ARINC- An acronym for Aeronautical Radio, Inc., a corporation largely owned by a group of airlines. ARINC is licensed by the FCC as an aeronautical station and contracted by the FAA to provide communications support for air traffic control and meteorological services in portions of international airspace.

ARMY AVIATION FLIGHT INFORMATION BULLETIN- A bulletin that provides air operation data covering Army, National Guard, and Army Reserve aviation activities.

ARO-
(See AIRPORT RESERVATION OFFICE.)

ARRESTING SYSTEM- A safety device consisting of two major components, namely, engaging or catching devices and energy absorption devices for the purpose of arresting both tailhook and/or nontailhook-equipped aircraft. It is used to prevent aircraft from overrunning runways when the aircraft cannot be stopped after landing or during aborted takeoff. Arresting systems have various names; e.g., arresting gear, hook device, wire barrier cable.

(See ABORT.)
(Refer to AIM.)

ARRIVAL AIRCRAFT INTERVAL- An internally generated program in hundredths of minutes based upon the AAR. AAI is the desired optimum interval between successive arrival aircraft over the vertex.

ARRIVAL CENTER- The ARTCC having jurisdiction for the impacted airport.

ARRIVAL DELAY- A parameter which specifies a period of time in which no aircraft will be metered for arrival at the specified airport.

ARRIVAL SECTOR- An operational control sector containing one or more meter fixes.

ARRIVAL SECTOR ADVISORY LIST- An ordered list of data on arrivals displayed at the PVD/MDM of the sector which controls the meter fix.

ARRIVAL SEQUENCING PROGRAM- The automated program designed to assist in sequencing aircraft destined for the same airport.

ARRIVAL TIME- The time an aircraft touches down on arrival.

ARSR-
(See AIR ROUTE SURVEILLANCE RADAR.)

ARTCC-
(See AIR ROUTE TRAFFIC CONTROL CENTER.)

ARTS-
(See AUTOMATED RADAR TERMINAL SYSTEMS.)

ASDA-
(See ACCELERATE-STOP DISTANCE AVAILABLE.)

ASDA [ICAO]-
(See ICAO Term ACCELERATE-STOP DISTANCE AVAILABLE.)

ASDE-
(See AIRPORT SURFACE DETECTION EQUIPMENT.)

ASF-
(See AIRPORT STREAM FILTER.)

ASLAR-
(See AIRCRAFT SURGE LAUNCH AND RECOVERY.)

ASP-
(See ARRIVAL SEQUENCING PROGRAM.)

ASR-
(See AIRPORT SURVEILLANCE RADAR.)

ASR APPROACH-
(See SURVEILLANCE APPROACH.)

ASSOCIATED- A radar target displaying a data block with flight identification and altitude information.

(See UNASSOCIATED.)

ATC-

(See AIR TRAFFIC CONTROL.)

ATC ADVISES- Used to prefix a message of noncontrol information when it is relayed to an aircraft by other than an air traffic controller.

(See ADVISORY.)

ATC ASSIGNED AIRSPACE- Airspace of defined vertical/lateral limits, assigned by ATC, for the purpose of providing air traffic segregation between the specified activities being conducted within the assigned airspace and other IFR air traffic.

(See SPECIAL USE AIRSPACE.)

ATC CLEARANCE-

(See AIR TRAFFIC CLEARANCE.)

ATC CLEARS- Used to prefix an ATC clearance when it is relayed to an aircraft by other than an air traffic controller.

ATC INSTRUCTIONS- Directives issued by air traffic control for the purpose of requiring a pilot to take specific actions; e.g., “Turn left heading two five zero,” “Go around,” “Clear the runway.”

(Refer to 14 CFR Part 91.)

ATC PREFERRED ROUTE NOTIFICATION- URET notification to the appropriate controller of the need to determine if an ATC preferred route needs to be applied, based on destination airport.

(See ROUTE ACTION NOTIFICATION.)

(See USER REQUEST EVALUATION TOOL.)

ATC PREFERRED ROUTES- Preferred routes that are not automatically applied by Host.

ATC REQUESTS- Used to prefix an ATC request when it is relayed to an aircraft by other than an air traffic controller.

ATCAA-

(See ATC ASSIGNED AIRSPACE.)

ATCRBS-

(See RADAR.)

ATCSCC-

(See AIR TRAFFIC CONTROL SYSTEM COMMAND CENTER.)

ATCT-

(See TOWER.)

ATD-

(See ALONG-TRACK DISTANCE.)

ATIS-

(See AUTOMATIC TERMINAL INFORMATION SERVICE.)

ATIS [ICAO]-

(See ICAO Term AUTOMATIC TERMINAL INFORMATION SERVICE.)

ATS ROUTE [ICAO]- A specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services.

Note: The term “ATS Route” is used to mean variously, airway, advisory route, controlled or uncontrolled route, arrival or departure, etc.

AUTOLAND APPROACH- An autoland approach is a precision instrument approach to touchdown and, in some cases, through the landing rollout. An autoland approach is performed by the aircraft autopilot which is receiving position information and/or steering commands from onboard navigation equipment.

Note: Autoland and coupled approaches are flown in VFR and IFR. It is common for carriers to require their crews to fly coupled approaches and autoland approaches (if certified) when the weather conditions are less than approximately 4,000 RVR.

(See COUPLED APPROACH.)

AUTOMATED INFORMATION TRANSFER- A precoordinated process, specifically defined in facility directives, during which a transfer of altitude control and/or radar identification is accomplished without verbal coordination between controllers using information communicated in a full data block.

AUTOMATED MUTUAL-ASSISTANCE VESSEL RESCUE SYSTEM- A facility which can deliver, in a matter of minutes, a surface picture (SURPIC) of vessels in the area of a potential or actual search and rescue incident, including their predicted positions and their characteristics.

(See FAAO JO 7110.65, Para 10-6-4, INFLIGHT CONTINGENCIES.)

AUTOMATED PROBLEM DETECTION (APD)- An Automation Processing capability that compares trajectories in order to predict conflicts.

AUTOMATED PROBLEM DETECTION BOUNDARY (APB)- The adapted distance beyond a facilities boundary defining the airspace within which URET performs conflict detection.

(See **USER REQUEST EVALUATION TOOL**.)

AUTOMATED PROBLEM DETECTION INHIBITED AREA (APDIA)- Airspace surrounding a terminal area within which APD is inhibited for all flights within that airspace.

AUTOMATED RADAR TERMINAL SYSTEMS (ARTS)- A generic term for several tracking systems included in the Terminal Automation Systems (TAS). ARTS plus a suffix roman numeral denotes a major modification to that system.

a. ARTS IIIA. The Radar Tracking and Beacon Tracking Level (RT&BTL) of the modular, programmable automated radar terminal system. ARTS IIIA detects, tracks, and predicts primary as well as secondary radar-derived aircraft targets. This more sophisticated computer-driven system upgrades the existing ARTS III system by providing improved tracking, continuous data recording, and fail-soft capabilities.

b. Common ARTS. Includes ARTS IIE, ARTS IIIIE; and ARTS IIIIE with ACD (see DTAS) which combines functionalities of the previous ARTS systems.

c. Programmable Indicator Data Processor (PIDP). The PIDP is a modification to the AN/TPX-42 interrogator system currently installed in fixed RAPCONs. The PIDP detects, tracks, and predicts secondary radar aircraft targets. These are displayed by means of computer-generated symbols and alphanumeric characters depicting flight identification, aircraft altitude, ground speed, and flight plan data. Although primary radar targets are not tracked, they are displayed coincident with the secondary radar targets as well as with the other symbols and alphanumerics. The system has the capability of interfacing with ARTCCs.

AUTOMATED WEATHER SYSTEM- Any of the automated weather sensor platforms that collect weather data at airports and disseminate the weather information via radio and/or landline. The systems currently consist of the Automated Surface Observing System (ASOS), Automated Weather Sensor System (AWSS) and Automated Weather Observation System (AWOS).

AUTOMATED UNICOM- Provides completely automated weather, radio check capability and airport advisory information on an Automated UNICOM system. These systems offer a variety of features, typically selectable by microphone clicks, on the UNICOM frequency. Availability will be published in the Airport/Facility Directory and approach charts.

AUTOMATIC ALTITUDE REPORT-
(See **ALTITUDE READOUT**.)

AUTOMATIC ALTITUDE REPORTING- That function of a transponder which responds to Mode C interrogations by transmitting the aircraft's altitude in 100-foot increments.

AUTOMATIC CARRIER LANDING SYSTEM- U.S. Navy final approach equipment consisting of precision tracking radar coupled to a computer data link to provide continuous information to the aircraft, monitoring capability to the pilot, and a backup approach system.

AUTOMATIC DEPENDENT SURVEILLANCE (ADS) [ICAO]- A surveillance technique in which aircraft automatically provide, via a data link, data derived from on-board navigation and position fixing systems, including aircraft identification, four dimensional position and additional data as appropriate.

AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST (ADS-B)- A surveillance system in which an aircraft or vehicle to be detected is fitted with cooperative equipment in the form of a data link transmitter. The aircraft or vehicle periodically broadcasts its GPS-derived position and other information such as velocity over the data link, which is received by a ground-based transmitter/receiver (transceiver) for processing and display at an air traffic control facility.

(See **GLOBAL POSITIONING SYSTEM**.)

(See **GROUND-BASED TRANSCEIVER**.)

AUTOMATIC DEPENDENT SURVEILLANCE-CONTRACT (ADS-C)- A data link position reporting system, controlled by a ground station, that establishes contracts with an aircraft's avionics that occur automatically whenever specific events occur, or specific time intervals are reached.

AUTOMATIC DIRECTION FINDER- An aircraft radio navigation system which senses and indicates the direction to a L/MF nondirectional radio beacon (NDB) ground transmitter. Direction is indicated to

the pilot as a magnetic bearing or as a relative bearing to the longitudinal axis of the aircraft depending on the type of indicator installed in the aircraft. In certain applications, such as military, ADF operations may be based on airborne and ground transmitters in the VHF/UHF frequency spectrum.

(See BEARING.)

(See NONDIRECTIONAL BEACON.)

AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) - ALASKA FSSs ONLY- The continuous broadcast of recorded non-control information at airports in Alaska where a FSS provides local airport advisory service. The AFIS broadcast automates the repetitive transmission of essential but routine information such as weather, wind, altimeter, favored runway, breaking action, airport NOTAMS, and other applicable information. The information is continuously broadcast over a discrete VHF radio frequency (usually the ASOS frequency.)

AUTOMATIC TERMINAL INFORMATION SERVICE- The continuous broadcast of recorded noncontrol information in selected terminal areas. Its purpose is to improve controller effectiveness and to relieve frequency congestion by automating the repetitive transmission of essential but routine information; e.g., "Los Angeles information Alfa. One three zero zero Coordinated Universal Time. Weather, measured ceiling two thousand overcast, visibility three, haze, smoke, temperature seven one, dew point five seven, wind two five zero at five, altimeter two niner niner six. I-L-S Runway Two Five Left approach in use, Runway Two Five Right closed, advise you have Alfa."

(See ICAO term AUTOMATIC TERMINAL INFORMATION SERVICE.)

(Refer to AIM.)

AUTOMATIC TERMINAL INFORMATION SERVICE [ICAO]- The provision of current, routine information to arriving and departing aircraft by means of continuous and repetitive broadcasts throughout the day or a specified portion of the day.

AUTOROTATION- A rotorcraft flight condition in which the lifting rotor is driven entirely by action of the air when the rotorcraft is in motion.

a. Autorotative Landing/Touchdown Autorotation. Used by a pilot to indicate that the landing will be made without applying power to the rotor.

b. Low Level Autorotation. Commences at an altitude well below the traffic pattern, usually below 100 feet AGL and is used primarily for tactical military training.

c. 180 degrees Autorotation. Initiated from a downwind heading and is commenced well inside the normal traffic pattern. "Go around" may not be possible during the latter part of this maneuver.

AVAILABLE LANDING DISTANCE (ALD)- The portion of a runway available for landing and roll-out for aircraft cleared for LAHSO. This distance is measured from the landing threshold to the hold-short point.

AVIATION WEATHER SERVICE- A service provided by the National Weather Service (NWS) and FAA which collects and disseminates pertinent weather information for pilots, aircraft operators, and ATC. Available aviation weather reports and forecasts are displayed at each NWS office and FAA FSS.

(See EN ROUTE FLIGHT ADVISORY SERVICE.)

(See TRANSCRIBED WEATHER BROADCAST.)

(See WEATHER ADVISORY.)

(Refer to AIM.)

AWW-

(See SEVERE WEATHER FORECAST ALERTS.)

AZIMUTH (MLS)- A magnetic bearing extending from an MLS navigation facility.

Note: Azimuth bearings are described as magnetic and are referred to as "azimuth" in radio telephone communications.

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U.S. Department
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**Federal Aviation
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BRIEFING GUIDE

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

Distribution: ZAT-712, ZAT-423 (External)

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

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1. PARAGRAPH NUMBER AND TITLE: 4-3-8. DEPARTURE REPORTS

2. BACKGROUND: Presently, when a departing IFR aircraft reports or is observed airborne, the flight service station is required to transmit the aircraft identification and departure time to the departure control facility. However, in many cases the control facility has already established radio or radar contact with the aircraft before (or at the same time as) the FSS/AFSS has transmitted the departure time. (For example, when clearances are issued directly to the aircraft and the FSS/AFSS is providing airport advisories). In these situations, providing a departure report to the IFR facility is redundant. This change will allow those facilities where this redundant procedure exists to implement a Letter of Agreement between the IFR control facility and the flight service station to omit the requirement to pass on the departure report.

3. CHANGE:

<u>OLD</u>	<u>NEW</u>
<p>4-3-8. DEPARTURE REPORTS</p> <p>Title through <i>PHRASEOLOGY</i></p> <p><i>NOTE-</i> This includes known VFR departure times of aircraft which are to obtain IFR clearances when airborne.</p> <p style="text-align: center;">Add</p>	<p>4-3-8. DEPARTURE REPORTS</p> <p style="text-align: center;">No Change</p> <p><i>NOTE-</i> <u>1. This includes known VFR departure times of aircraft which are to obtain IFR clearances when airborne.</u></p> <p><u>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.</u></p>

1. PARAGRAPH NUMBER AND TITLE: 4-4-8. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) - ALASKA FSSs ONLY

2. BACKGROUND: The Alaska Flight Services Information Area is broadcasting flight information from 10 automatic recorder units that were installed at remote Flight Service Stations (1 more planned for a total of 11). The first 3 of these were commissioned in the 1980s to provide repetitive information to pilots at busy remote locations, and the next 7 were installed in 2005 and 2006 as a result of the success of the program at the initial 3 installations. The FSS recorded flight information program is similar to the terminal ATIS program, but there are significant differences. FSS recordings do not provide runway in use or approach in use information, but do emphasize weather and local NOTAM information. The proposed change to FAAO JO 7110.10, along with changes to the AIM, FAAO JO 7210.3, and FAAO 7930.2, will name the broadcast service and equipment, "Automatic Flight Information Service (AFIS)," and establish procedures for the use of AFIS in Alaska FSS locations.

3. CHANGE:

<u>OLD</u>	<u>NEW</u>
<p>Add</p> <p>Add</p>	<p><u>4-4-8. AUTOMATIC FLIGHT INFORMATION SERVICE (AFIS) - ALASKA FSSs ONLY</u></p> <p><u>Use the AFIS to provide advance non-control airport, meteorological, and pertinent NOTAM information to aircraft.</u></p> <p><i>NOTE-</i> <u>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.</u></p>

Add

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

b. The AFIS recording shall 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, AIRMETs, SIGMETs, CWAs, PIREPs, or other information that facilitates the repetitive transmission of essential but routine information.

2. Data may be omitted because of rapidly changing weather conditions or other circumstances when deemed necessary by the supervisor or controller-in-charge. When this occurs, the AFIS shall state the name of the appropriate facility to contact (and frequency, if different from airport CTAF) to obtain the missing data.

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 shall either:

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

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

Specialists shall provide LAA information when the AFIS is not available.

5. At the discretion of the supervisor/controller-in-charge, AFIS broadcasts may be suspended within specified time periods. During these periods, the AFIS shall contain a brief statement the AFIS is suspended for the specified time and pilots should contact the FSS for LAA.

Add

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 shall record a message with the appropriate frequency and facility contact information as well as known information regarding resumption of FSS 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 AFSS) 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 AFSS) ON (frequency).”

7. In the event of an AFIS equipment failure, the supervisor/controller-in-charge shall make an entry in the Daily Record of Facility Operation, FAA Form 7230-4; notify the appropriate Technical Operations personnel; issue a NOTAM; and resume LAA.

8. 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) Weather information consisting of: Wind, visibility, present weather (obstructions to visibility), sky condition, temperature, dew point, altimeter, pertinent remarks included in the official weather observation. The ceiling/sky condition, visibility, and obstructions to vision may be omitted if the ceiling is above 5,000 feet and the visibility is more than 5 miles.

EXAMPLE-

“The weather is better than five thousand and five.”

Add

(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 breaking action or friction reports when provided. Include the time of the report and a word describing the cause of the runway friction problem.

PHRASEOLOGY-

“RUNWAY (number) MU (first value, second value, third value) AT (time), (cause).”

REFERENCE-

FAAO JO 7110.10, Para 4-4-2, LAA/RAIS/RAA Elements and Phraseology.

(i) Low Level Wind shear (LLWS) advisory, including those contained in the terminal forecast and in pilot reports. (Include pilot report 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.”

Add

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 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 Alaska Flight Service Information Area Group or the Alaskan Region ROC.

REFERENCE-

FAAO JO 7210.3, Para 2-1-9, Handling MANPADS Incidents.

(l) Any other advisories applicable to the area covered by the FSS 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 FSS AFIS message on initial contact.

EXAMPLE-

“Dillingham airport information ALFA. One six five five Zulu. Wind one three zero at eight; visibility one five; ceiling four thousand overcast; temperature four, dew point three; altimeter two niner niner zero. Favored runway one niner. Notice to Airmen, Dillingham V-O-R out of service. Contact Dillingham Radio on one two three point six for traffic advisories. Advise on initial contact you have ALFA.”

“Kotzebue information ALFA. One six five five Zulu. Wind, two one zero at five; visibility two, fog; ceiling one hundred overcast; temperature minus one two, dew point minus one four; altimeter three one zero five. Altimeter in excess of three one zero zero, high pressure altimeter setting procedures are in effect. Favored runway two six. Weather in Kotzebue surface area is below V-F-R minima - an ATC clearance is required. Contact Kotzebue Radio on one two three point six for traffic advisories and advise intentions. Notice to Airmen, Hotham NDB out of service. Transcribed Weather Broadcast out of service. Advise on initial contact you have ALFA.”

1. PARAGRAPH NUMBER AND TITLE: 6-2-3. ALASKA SPECIAL INSTRUCTIONS

2. BACKGROUND: The PANCYAYI address referenced in FAAO JO 7110.10T, Paragraph 6-2-3 is assigned to a terminal that existed in the Alaska Flight Inspection Field Office (FIFO). This address provided information that was beneficial to FIFO for many years when they had an extensive fleet of aircraft that performed Flight Check duties and also supplied remote sites. FIFO no longer needs this information directly from FSS/AFSSs, and the terminal that was located at the Anchorage FIFO has been removed. The address PANCYAYI is no longer valid.

3. CHANGE:

<u>OLD</u>	<u>NEW</u>
6-2-3. ALASKA SPECIAL INSTRUCTIONS	Delete
<u>All flight plans, departures (including intermediate departures) or arrivals, on an FAA aircraft, will be given normal distribution plus PANCYAYI whether VFR or IFR.</u>	Delete
<u>EXAMPLE-</u>	Delete
<u>AISR</u>	
<u>FF PANCYAYI</u>	
<u>DTG PAENYFYX</u>	
<u>N123 D1345</u>	
<u>AISR</u>	
<u>FF PANCYAYI</u>	
<u>DTG PAENYFYX</u>	
<u>N123 ENA A1345 ANC</u>	
6-2-4 and 6-2-5	Renumbered 6-2-3 and 6-2-4