

TAILWINDS FLYING CLUB

Spring 2016 Safety Session

Flight Plans

“FAA or ICAO?”

This is an Interactive Session

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- What are flight plans?

A means of communicating your plan of flight to Flight Services / Air Traffic Control.

- Why?

- **VFR** – Timer to initiate Search and Rescue (30 mins after ETA)
- **DVFR** – (Defense VFR) Alert Border Patrol and ATC of crossing the border
- **IFR** – Inform ATC about your flight for aircraft separation

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Where can find information?

- AIM 5-1-4 FLIGHT PLAN – VFR FLIGHTS
- AIM 5-1-6 FLIGHT PLAN – DEFENSE VFR (DVFR)
- AIM 5-1-7 COMPOSITE FLIGHT PLAN (VFR/IFR FLIGHTS)
- AIM 5-1-8 FLIGHT PLAN (FAA FORM 7233-1) – DOMESTIC IFR FLIGHTS
- AIM 5-1-9 INTERNATIONAL FLIGHT PLAN (FAA FORM 7233-4) – IFR DOMESTIC OR INTERNATIONAL

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§91.153 VFR FLIGHT PLAN: INFORMATION REQUIRED

(a) *Information required.* Unless otherwise authorized by ATC, each person filing a VFR flight plan shall include in it the following information:

- (1) The **aircraft identification number** and, if necessary, its radio call sign.
- (2) The **type of the aircraft** or, in the case of a formation flight, the type of each aircraft and the number of aircraft in the formation.
- (3) The **full name and address of the pilot in command** or, in the case of a formation flight, the formation commander.
- (4) **The point and proposed time of departure.**
- (5) The **proposed route, cruising altitude** (or flight level), and **true airspeed** at that altitude.
- (6) The point of **first intended landing** and the **estimated elapsed time** until over that point.
- (7) The amount of **fuel on board** (in hours).
- (8) The **number of persons in the aircraft**, except where that information is otherwise readily available to the FAA.
- (9) **Any other information** the pilot in command or ATC believes is necessary for ATC purposes.

(b) *Cancellation.* When a flight plan has been activated, the pilot in command, upon canceling or completing the flight under the flight plan, shall notify an FAA Flight Service Station or ATC facility.

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§91.169 IFR FLIGHT PLAN: INFORMATION REQUIRED

(a) *Information required.* Unless otherwise authorized by ATC, each person filing a IFR flight plan must include in it the following information:

- (1) Information required under **§91.153 (a)** of this part;
- (2) Except as provided in paragraph (b) of this section, an **alternate airport**.

(b) *[alternate airport exceptions (1-2-3 rule)]*

(c) *[IFR alternate airport weather minimums]*

(d) *Cancellation.* When a flight plan has been activated, the pilot in command, upon canceling or completing the flight under the flight plan, shall notify an FAA Flight Service Station or ATC facility.

§91.173 ATC CLEARANCE AND FLIGHT PLAN REQUIRED


No person may operate an aircraft in controlled airspace under IFR unless that person has—

- (a) **Filed an IFR flight plan;** and
- (b) Received an appropriate ATC clearance.

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FAA Form 7233-1 (a.k.a FAA Form, Domestic Form)

 FLIGHT PLAN <small>U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION</small>		(FAA USE ONLY) <input type="checkbox"/> PILOT BRIEFING <input type="checkbox"/> VNR <input type="checkbox"/> STOPOVER			TIME STARTED	SPECIALIST INITIALS	
		1. TYPE	2. AIRCRAFT IDENTIFICATION	3. AIRCRAFT TYPE / SPECIAL EQUIPMENT	4. TRUE AIRSPEED KTS	5. DEPARTURE POINT	6. DEPARTURE TIME PROPOSED (Z) ACTUAL (Z)
<input type="checkbox"/> VFR							
<input type="checkbox"/> IFR							
<input type="checkbox"/> DVFR							
8. ROUTE OF FLIGHT							
9. DESTINATION (Name of airport and city)		10. EST. TIME ENROUTE HOURS MINUTES		11. REMARKS			
12. FUEL ON BOARD HOURS MINUTES		13. ALTERNATE AIRPORT(S)		14. PILOT'S NAME, ADDRESS & TELEPHONE NUMBER & AIRCRAFT HOME BASE			15. NUMBER ABOARD
				17. DESTINATION CONTACT/TELEPHONE (OPTIONAL)			
16. COLOR OF AIRCRAFT		CIVIL AIRCRAFT PILOTS. FAR Part 91 requires you file an IFR flight plan to operate under instrument flight rules in controlled airspace. Failure to file could result in a civil penalty not to exceed \$1,000 for each violation (Section 901 of the Federal Aviation Act of 1958, as amended). Filing of a VFR flight plan is recommended as a good operating practice. See also Part 99 for requirements concerning DVFR flight plans.					

FAA Form 7233-1 (8-82)
Electronic Version (Adobe)

CLOSE VFR FLIGHT PLAN WITH _____ FSS ON ARRIVAL

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FAA Form 7233-4

(a.k.a ICAO Form, International Form)

- Recommended for domestic IFR (Possible FAA mandate Oct 1, 2016 for both VFR and IFR)
- Mandatory for all IFR flights departing US domestic airspace
- Eligible for RNAV SIDs and STARs
- Able to communicate more specific navigation, communication, and surveillance equipment (which ATC will base appropriate clearances on)

Form Approved OMB No. 2120-0026
09/30/2006

U.S. Department of Transportation
Federal Aviation Administration

International Flight Plan

PRIORITY: **<=FF** ADDRESSEE(S):

FILING TIME: ORIGINATOR: **<=**

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

3 MESSAGE TYPE: **<=(FPL** 7 AIRCRAFT IDENTIFICATION: 8 FLIGHT RULES: TYPE OF FLIGHT: **<=**

9 NUMBER: TYPE OF AIRCRAFT: WAKE TURBULENCE CAT.: 10 EQUIPMENT: **<=**

13 DEPARTURE AERODROME: TIME: **<=**

15 CRUISING SPEED: LEVEL: ROUTE:

16 DESTINATION AERODROME: TOTAL EET: HR MIN: ALTN AERODROME: 2ND ALTN AERODROME: **<=**

18 OTHER INFORMATION:

19 SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES)

ENDURANCE: HR MIN: PERSONS ON BOARD: P/ ELB: EMERGENCY RADIO: UHF: VHF: ELBA: R/

SURVIVAL EQUIPMENT: POLAR: DESERT: MARITIME: JUNGLE: JACKETS: LIGHT: FLUORES: UH: VHF:

DINGHIES: NUMBER: CAPACITY: COVER: COLOR: **<=**

AIRCRAFT COLOR AND MARKINGS: A/

REMARKS: N/ **<=**

PILOT-IN-COMMAND: C/ **<=**

FILED BY: ACCEPTED BY: ADDITIONAL INFORMATION:

FAA Form 7233-4 (7-93)

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Why switch?

- Single system globally

However, remember it was designed for..

- Transmitting of data via computers
- Majority of flights – commercial airlines
- FAA having to accommodate US requirements into International form (DVFR, SFRA)

Can seem daunting, but after you run thru it once, it is not that difficult...

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Yes, start with item Z ???

ITEM 7: Aircraft Identification (maximum 7 characters)

ENTER aircraft identifications, not exceeding 7 alphanumeric characters and without hyphens or symbols

Aircraft	Value
Archer	N4100Q
CherokeeSix	N2899N
Cirrus	N132CP

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ITEM 8: Flight Rules and Type of Flight (1 or 2 characters)

Flight Rules

- I if it is intended that the entire flight will be operated under IFR.
- V if it is intended that the entire flight will be operated under VFR.
- Y if the flight initially will be operated under IFR, followed by one or more changes of flight rules.
- Z if the flight initially will be operated under VFR, followed by one or more changes of flight rules.

Type of flight

- S if scheduled air service
- N if non-scheduled air transport operation
- **G if general aviation**
- M if military
- X if other than any of the defined categories above

Field	Value
Flight Rules	I, V, Y, or Z
Type of Flight	G

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ITEM 9: Number and Type of Aircraft and Wake Turbulence Category

Type of aircraft (2 to 4 characters)

ENTER the appropriate designator as specified in ICAO Doc 8643, Aircraft Type Designators

Aircraft	Value
Archer	P28A/L
CherokeeSix	PA32/L
Cirrus	SR20/L

Wake turbulence category (1 character)

- H - HEAVY, to indicate an aircraft type with a maximum certificated take-off mass of 136 000 kg or more;
- M - MEDIUM, to indicate an aircraft type with a maximum certificated take-off mass of less than • 136,000 kg but more than 7,000 kg;
- L - LIGHT, to indicate an aircraft type with a maximum certificated take-off mass of 7,000 kg or less.

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ITEM 10: Equipment and Capabilities

Capabilities comprise the following elements:

- (a) Presence of relevant serviceable equipment on board the aircraft;
- (b) Equipment and capabilities commensurate with flight crew qualifications;
- (c) Where applicable, authorization from the appropriate authority.

Aircraft	Value
Archer	SGRZ
CherokeeSix	SGRZ
Cirrus	SGRZ

Radio communication, navigation and approach aid equipment and capabilities

ENTER one letter as follows:

- N if no COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is unserviceable, OR
- **S if standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable,**

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

D	DME
G	GNSS (Nav/)
I	INS
O	VOR
R	PBN
T	TACAN
W	RVSM
Z	Other <i>Item 18</i>

Item 18: PBN/B2C2D2 NAV/RNVD1E2A1 for our aircraft...

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ITEM 10: Equipment and Capabilities (Continued)

Capabilities comprise the following elements:

- (a) Presence of relevant serviceable equipment on board the aircraft;
- (b) Equipment and capabilities commensurate with flight crew qualifications;
- (c) Where applicable, authorization from the appropriate authority.

Aircraft	Value
Archer	C
CherokeeSix	C
Cirrus	C

Surveillance equipment and capabilities

N - None

A - Transponder – Mode A (code only indication)

C - Transponder – Mode A and Mode C (code and altitude indication)

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

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

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

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

X - Transponder – Mode S without both aircraft identification and pressure altitude transmission

P - Transponder – Mode S, including pressure altitude transmission, but no aircraft identification transmission

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

B1 - ADS-B (1090ES, Out)

B2 - ADS-B (1090ES, Out/In)

U1 - ADS-B (UAT, Out)

U2 - ADS-B (UAT, Out/In)

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ITEM 13: Departure Aerodrome and Time (8 characters)

Departure Aerodrome (4 characters)

ENTER the ICAO four-letter location indicator of the departure aerodrome as specified in Doc 7910, Location Indicators,

-OR-

ENTER ZZZZ and SPECIFY, in Item 18, the name and location of the aerodrome preceded by DEP/,

Departure Time (4 characters)

ENTER UTC departure time

Airport	Value
Anoka/Blaine	KANE
Duluth Intl	KDLH
Lake Elmo	ZZZZ (Item 18) DEP/21D Lake Elmo

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ITEM 15: Cruising Speed, Altitude/Level, Route

Element	Value
135 knots	K0135
5500 ft	A055

Cruising Speed (5 characters)

ENTER the True Air Speed for the first or the whole cruising portion, in terms of:
Kilometers per hour, expressed as K followed by 4 figures (for example, K0830), or
***Knots*, expressed as N followed by 4 figures (for example, N0140), or**
True Mach number, expressed as M followed by 3 figures (for example, M082).

Cruising Level (5 characters)

ENTER the planned cruising level for the first or the whole, in terms of:
Flight level, expressed as F followed by 3 figures (for example, F085; F330), or
***Altitude*, expressed as A followed by 3 figures in hundreds of feet (for example, A055)**

Cruising Route

(next page)

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ITEM 15: Cruising Speed, Altitude/Level, Route (Continued)

Cruising Route

Waypoints along designated ATS routes

ENTER the designator of the first ATS route, *if the departure aerodrome is located on or connected to the ATS route,*

-OR-

“DCT” followed by the point of joining the first ATS route, *if the departure aerodrome is not located on or connected to the ATS route,*

THEN

ENTER each point at which either a change of speed and/or level is planned to start, or a change of ATS route, and/or a change of flight rules is planned,

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ITEM 16: Destination Aerodrome, Total Estimated Elapsed Time, Alternate Aerodrome (8-12 characters)

Destination Aerodrome (4 characters)

ENTER the ICAO four-letter location indicator of the destination aerodrome as specified in Doc 7910, Location Indicators,

-OR-

ENTER ZZZZ and SPECIFY, in Item 18, the name and location of the aerodrome preceded by DEST/,

Total Estimated Elapsed Time (4 characters)

HHMM

Alternate Aerodrome (4 characters)

ENTER the ICAO four-letter location indicator of the destination aerodrome as specified in Doc 7910, Location Indicators,

-OR-

ENTER ZZZZ and SPECIFY, in Item 18, the name and location of the aerodrome preceded by ALTN/,

Airport	Value
Anoka/Blaine	KANE
Duluth Intl	KDLH
Lake Elmo	ZZZZ (Item 18) DEST/21D Lake Elmo

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ITEM 18: Other Information

DEP/	Departure Airport or bearing and distance to navaid/navigation point closest to Departure Point <i>Example: DEP/21D Lake Elmo</i>
DEST/	Departure Airport or bearing and distance to navaid/navigation point closest to Destination Point <i>Example: DEST/4Y5 Major Gilbert LaPoint</i>
ALTN/	Departure Airport or bearing and distance to navaid/navigation point closest to Alternate Point
PBN/	Performance Based Navigation. In this case, capabilities of the GPS (Garmin 430). <i>Example: PBN/B2C2D2</i>
NAV/	Navigation capabilities. In this case, able to do RNAV SIDs and STARs (i.e. RNAV departures and arrivals) <i>Example: NAV/RNVD1E2A1</i>
RMK/	Remarks <i>Example: RMK/ILS Practice Approach KANE KSTP</i> <i>Example: RMK/Student Pilot</i>

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ITEM 19: Supplementary Information

Endurance

ENTER a 4-figure group giving the fuel endurance in hours and minutes

Persons On Board

ENTER the total number of persons (passengers and crew) on board

Aircraft Color And Markings

ENTER color of aircraft and significant markings

Pilot-In-Command

ENTER the name of Pilot-in-Command

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How to file your flight plan (Domestic or International)

- Submit hardcopy flight plan to FSS
- Call Flight Services (800-WX-BRIEF)
- Submit online
 - Lockheed Martin Flight Service – (<http://www.1800wxbrief.com>)
 - Direct User Access Terminal Service (DUATS) – (<http://www.duats.com>)
 - FltPlan.com
- Mobile Apps
 - ForeFlight
 - Garmin Pilot
 - FlyQ EFB

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Thanks for Attending!