

IFR Flight Planning

Flight Overview

Weather Considerations

Completion of Navigation Log and
Flight Plan

Consideration for IFR flights

In VFR flights are planning is considerably less than IFR flights. Why? *We have much more preparation with regards to weather, aircraft performance and equipment, and your instrument proficiency level.*

Meteorological conditions

Before considering a route, you must determine “*Can I get there*”? You must evaluate weather with much greater scrutiny for IFR than VFR. With VFR its simply GO-NO GO but with IFR flights you have detailed evaluation of arrival time weather conditions at your destination-primarily ceilings and visibilities not only at the destination but at a possible alternate airport. *Where will you get that information?*

Aircraft Performance and Equipment

These relate to the airports of intended use and the terrain over which you fly. Your aircraft must have the capabilities relative to the flight. You will also need specific performance information like fuel consumption and takeoff and landing distances when planning the flight. If you have GPS, then you might want to consider direct instead of transit on victor airways dependent but you must carefully evaluate terrain if going direct. *Where will you get that information?*

Proficiency

Is the flight too difficult to complete-are your skills up to the task. If not you may need to refresh your skills with the help of an instructor.

IFR Route

Several factors can influence your route selection including the availability of route alternatives, aircraft performance, and fuel economy.

Preferred Routes

Preferred IFR routes beginning or ending with a fix indicate that aircraft may be routed to or from these fixes via a DP, radar vector or STAR. Preferred routes are listed in the Enroute section of the *Jeppesen Airways Manual* and in the *Airport/Facility Directory*. When no preferred route is available, you will have to consult the enroute chart to select the most practical route for the flight.

Other Considerations

- Check for applicable MEAs along the route.
- Make sure of altitudes in case those flights require oxygen.
- Make sure your aircraft is capable of the climb requirements.
- Consider using GPS for “direct” routing
- Carefully evaluate departure and arrival procedures. You should also consider arrival procedures at your departure airport should you need to return to the airport shortly after takeoff.
- If no arrival or departure procedures are available, you will need to determine how to transition from the enroute to the approach segment of the flight. ATC will likely handle arrival transition but look at all the options.
- Carefully consider alternatives-weather, distance (fuel required), & available approaches.

Flight Information Publications

Either and/or carefully consider NOTAMs for navaid, lighting outages, runway closures, limitations on instrument approach procedures.

Review the A/FD for specific information about your departure, destination, and alternate airports. (runway lengths, fuel availability, lighting, hours of operation, and navigation, communications, and radar facilities.

Make sure your aircraft's equipment meets FAR 91.171, 91.103 inspection requirements (**VORs, transponder, ELT**) and you have the **latest GPS data**.

Periodically check the AIM to review current procedures. It also provides information on items like navigation aids, lighting and airport markings, airspace, ATC, emergency procedures, safety of flight, medical factors and charts

Create a Navigation Log

List the routes, courses, distances, checkpoints, and necessary communication and navigation information as well as any additional information you feel is important. The bulk of your flight plan cannot be completed until you have collected updated weather information for your route of flight. You can always start it with a "*template*" for repeated flights along the same route, and complete the *template copy* after weather data is received.

Any Questions on Completing Your Navlog?

NAVIGATION LOG																																																																																	
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<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Airport Frequencies</th> <th colspan="2">Departure</th> <th colspan="2">Destination</th> </tr> </thead> <tbody> <tr> <td>ATIS</td> <td></td> <td>ATIS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Qrd</td> <td></td> <td>Appch</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tower</td> <td></td> <td>Tower</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dep.</td> <td></td> <td>Qrd</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CTAF</td> <td></td> <td>CTAF</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FSS</td> <td></td> <td>FSS</td> <td></td> <td></td> <td></td> </tr> <tr> <td>UNICOM</td> <td></td> <td>UNICOM</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Field Elev.</td> <td></td> <td>Field Elev.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Block In</td> <td></td> <td></td> <td></td> <td>Log Time</td> <td></td> </tr> <tr> <td>Block Out</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>																Airport Frequencies		Departure		Destination		ATIS		ATIS				Qrd		Appch				Tower		Tower				Dep.		Qrd				CTAF		CTAF				FSS		FSS				UNICOM		UNICOM				Field Elev.		Field Elev.				Block In				Log Time		Block Out					
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ICAO FLIGHT PLANS

The FAA has implemented flight plan filing for civil aircraft using a format that aligns with International Civil Aviation Organization (ICAO) standards. Built into Foreflight 😊

TUTORIAL

<https://www.youtube.com/watch?v=sfe3ZxuQlrw>



Flight Plan Filling - SKYbrary Aviation Safety.html

FAR Part 91.169 requires that you close the flight plan. You can cancel an IFR flight plan anytime you are operating in VFR conditions below 18,000 MSL. However if IFR conditions are again encountered you must receive an IFR clearance before proceeding into those conditions. If you land at an uncontrolled airport (no tower) than you are responsible for closing your own IFR flight plan.

International Flight Plan		
1 PRIORITY =<FF	ADDRESSEE(S)	
FLYING TIME		
ORIGINATOR		
SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND/OR ORIGINATOR		
3 MESSAGE TYPE =<(FPL	7 AIRCRAFT IDENTIFICATION	8 FLIGHT RULES
9 NUMBER	TYPE OF AIRCRAFT	10 EQUIPMENT
13 DEPARTURE AERODROME	TIME	WAKE TURBULENCE CAT.
15 CRUISING SPEED	LEVEL	ROUTE
16 DESTINATION AERODROME	TOTAL EET HR MIN	ALTN AERODROME
18 OTHER INFORMATION		
19 SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES)		
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SURVIVAL EQUIPMENT		JACKETS
DINCHIES		LIGHT FLUORES
AIRCRAFT COLOR AND MARKINGS		REMARKS
PILOT-IN-COMMAND		FILED BY
ACCEPTED BY		ADDITIONAL INFORMATION

FAA Form 7233-4 (7/15)

Flight Planning Summary Checklist

- When you begin the IFR flight planning process, take a preliminary look at factors like weather, airplane performance and equipment, potential routes, and your instrument proficiency that may prevent you from making the flight.
- Availability of preferred IFR routes, aircraft performance considerations, and fuel economy will influence route selection.
- Check for published departure or arrival procedures relevant to your intended flight.
- NOTAMs should be reviewed for items like navaid and lighting outages or runway closures that can significantly affect your flight.
- Review the A/FD for specific information about departure and arrival airports as well as possible alternate airports.
- Begin gathering weather data several days before your flight in order to obtain a general overview of weather patterns.
- Although weather information may be obtained from numerous sources including newspapers, television and the internet, these source should not be considered suitable alternatives to a flight service station or DUATS standard briefing.
- In case the weather at your destination is forecast to have a ceiling less than 2,000 feet or visibility less than 3 miles, you need to file an alternative.
- A good alternate airport should be far enough away to be unaffected by weather at your destination, be equipped with appropriate communications and weather reporting capability, and have more than 1 approach.
- Once your weather briefing is complete, you can make your go/no-go decision and begin planning the flight if conditions are favorable.

Flight Planning Summary Checklist

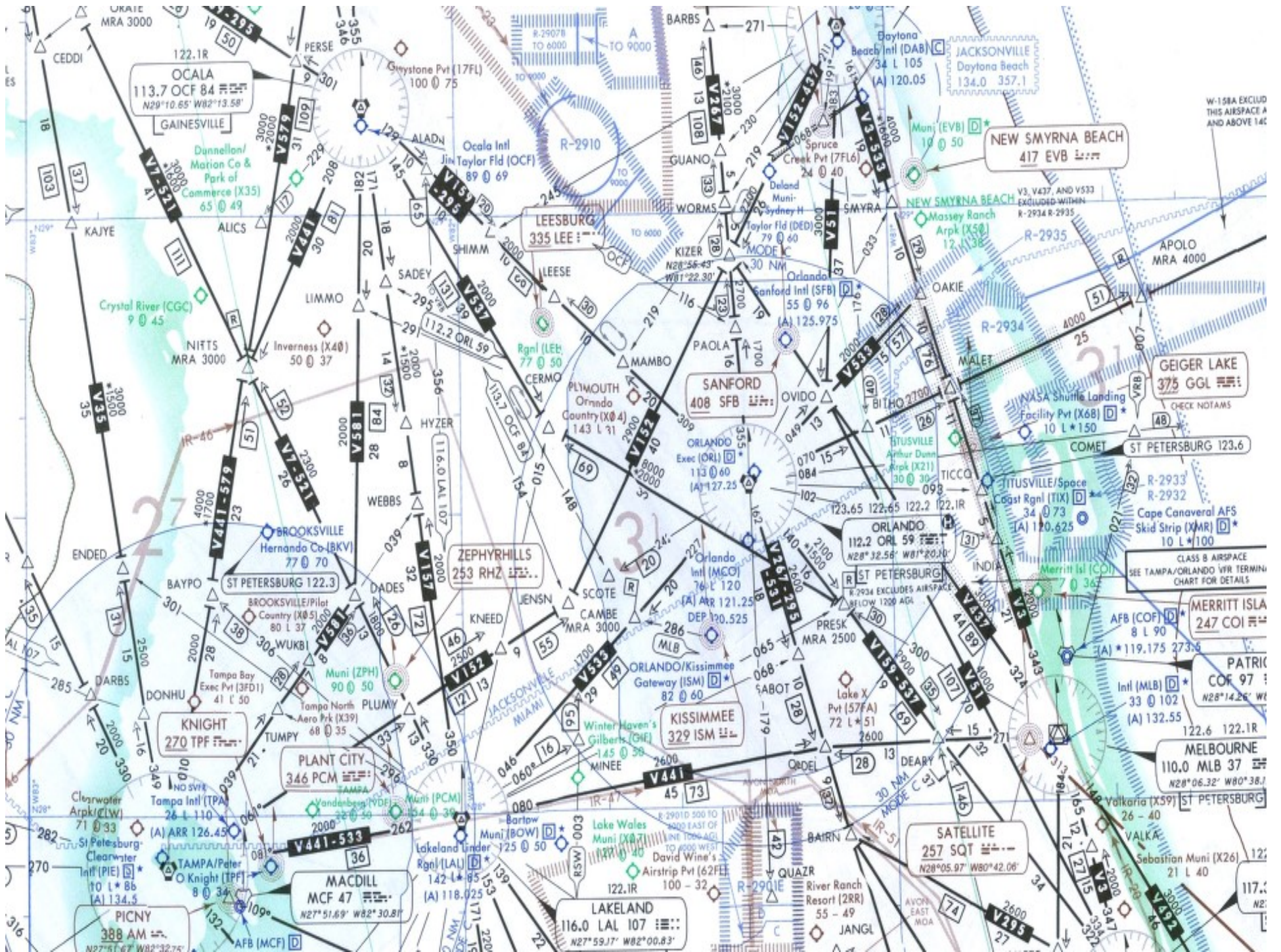
- The navigation log is a convenient way for you to complete your preflight planning, organize your flight, and provide you with a concise textual description of your flight.
- Before filing your flight plan, ensure you have all the blocks in the flight plan filled in correctly, including the aircraft special equipment code in block 3.
- If you are flying to an airport that does not have an operating control tower, you are responsible for closing your own IFR flight plan by phone through FSS or by direct communication with ATC.


Your IFR Route Exam

Use a NAVLOG and Flight Plan to complete a flight from Saint Petersburg International Airport to Dayton Beach International Airport
Indicate no DP or STARs on the flight plan. Plan on route using Victor Airways.

- You are flying N128Q, a Cessna 182/U (Equipment code indicates transponder with Mode C capability)
- Your climb rate is 800 fpm, climbing to 7,000 MSL at a climb speed of 100 KTS
- Your planned cruise and descent airspeed is 140 KTs.
- Fuel burn on climb out is 14 GPH, and 10 GPH during cruise. Note: Add 3 Gals for taxi and run-up.
- You are carrying 75 G of usable fuel.
- You are the sole occupant

You will be provided a NAVLOG, FLIGHT PLAN, and image of the L-21 Low Enroute Chart to prepare the flight.



 FLIGHT PLAN U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		(FAA USE ONLY) <input type="checkbox"/> PILOT BRIEFING <input type="checkbox"/> VNR <input type="checkbox"/> STOPOVER			TIME STARTED		SPECIALIST INITIALS	
1. TYPE <input type="checkbox"/> VFR <input type="checkbox"/> IFR <input type="checkbox"/> DVFR	2. AIRCRAFT IDENTIFICATION	3. AIRCRAFT TYPE / SPECIAL EQUIPMENT	4. TRUE AIRSPEED KTS	5. DEPARTURE POINT		6. DEPARTURE TIME PROPOSED (Z) ACTUAL (Z)		7. CRUISING ALTITUDE
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.					