



ON TRACK



Articles of Interest for the Professional Aviator

ICP Flight - Central Flying School

VFR FLIGHT INTO THE UNITED STATES

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(changes identified by a bar in the left margin)

Background:

As Canadian Forces pilots flying State Aircraft (Military Aircraft are considered “State Aircraft” in accordance with ICAO Regulations), we are **required to adhere to FAR Part 91** when operating within the U.S. (including the District of Columbia, Puerto Rico, and the possessions including the territorial waters, and the airspace of those areas).

“Once upon a time” pilots were able to fly across the U.S. – Canada border under VFR with little thought or planning (with the exception of notifying Customs). Unfortunately, current events, namely the events of September 11, 2001, have changed this perceived freedom considerably. As a security measure, the FAA instituted a requirement for pilots entering into U.S. airspace to obtain and transmit a U.S. assigned transponder code prior to entry – Effective **September, 2001**. Failure to comply with this requirement may constitute an infringement upon U.S. Sovereign Airspace and may be handled accordingly.

Entering the U.S. under Visual Flight Rules (VFR):

When entering U.S. Airspace, regardless of whether you are operating under IFR or VFR, you **MUST** obtain and transmit a U.S. assigned Transponder Code. When operating under radar control (either IFR or VFR), ATC will give you an updated squawk when you are handed over to the first U.S. Air Traffic Controller (if required). However, when operating VFR and not under radar control, unless you specifically request a discrete Transponder Code prior to crossing into U.S. Airspace, no such code will be offered. Because this code is required prior to entering U.S. Airspace, each pilot operating under these conditions must take whatever steps are necessary to obtain and squawk the required Transponder Code prior to entering said airspace.... This includes contacting the entry U.S. ATC via phone line prior to departure, through a Canadian ATC while airborne, or via phone patch through FSS while enroute.

The act of transmitting the standard transponder codes of 1200 or 2000 when entering U.S. Airspace is not considered compliance with U.S. entry requirements. However, if you depart a U.S. station to remain within U.S. airspace or enter U.S. airspace from Canada, Mexico, or Oceanic while operating under VFR and are subsequently instructed to squawk VFR by ATC, then a transponder code of 1200 is appropriate and in compliance with FAA Regulations.

The following excerpts from the “U.S. Federal Aviation Regulations and Aeronautical Information Manual” relate to VFR Operations within U.S. Airspace (color has been added to emphasize key points):

Aeronautical Information Manual

4-1-19. Transponder Operation

a. General

1. Pilots should be aware that proper application of transponder operating procedures will provide both VFR and IFR aircraft with a higher degree of safety in the environment where high-speed closure rates are possible. Transponders substantially increase the capability of radar to see an aircraft and the Mode C feature enables the controller to quickly determine where potential traffic conflicts may exist. Even VFR pilots who are not in contact with ATC will be afforded greater protection from IFR aircraft and VFR aircraft which are receiving traffic advisories. Nevertheless, pilots should never relax their visual scanning vigilance for other aircraft.

2. Air Traffic Control Radar Beacon System (ATCRBS) is similar to and compatible with military coded radar beacon equipment. Civil Mode A is identical to military Mode 3.

3. Civil and military transponders should be adjusted to the "on" or normal operating position as late as practicable prior to takeoff and to "off" or "standby" as soon as practicable after completing landing roll, unless the change to "standby" has been accomplished previously at the request of ATC. **IN ALL CASES, WHILE IN CONTROLLED AIRSPACE EACH PILOT OPERATING AN AIRCRAFT EQUIPPED WITH AN OPERABLE ATC TRANSPONDER MAINTAINED IN ACCORDANCE WITH 14 CFR SECTION 91.413 SHALL OPERATE THE TRANSPONDER, INCLUDING MODE C IF INSTALLED, ON THE APPROPRIATE CODE OR AS ASSIGNED BY ATC. IN CLASS G AIRSPACE, THE TRANSPONDER SHOULD BE OPERATING WHILE AIRBORNE UNLESS OTHERWISE REQUESTED BY ATC.**

4. **A pilot on an IFR flight who elects to cancel the IFR flight plan prior to reaching destination,**

should adjust the transponder according to VFR operations.

5. If entering a U.S. OFFSHORE AIRSPACE AREA from outside the U.S., the pilot should advise on first radio contact with a U.S. radar ATC facility that such equipment is available by adding "transponder" to the aircraft identification.

6. It should be noted by all users of ATC transponders that the coverage they can expect is limited to "line of sight." Low altitude or aircraft antenna shielding by the aircraft itself may result in reduced range. Range can be improved by climbing to a higher altitude. It may be possible to minimize antenna shielding by locating the antenna where dead spots are only noticed during abnormal flight attitudes.

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f. Mode C Transponder Requirements

1. Specific details concerning requirements to carry and operate Mode C transponders, as well as exceptions and ATC authorized deviations from the requirements are found in 14 CFR Section 91.215 and 14 CFR Section 99.12.

2. In general, the CFRs require aircraft to be equipped with Mode C transponders when operating:

(a) At or above 10,000 feet MSL over the 48 contiguous states or the District of Columbia, excluding that airspace below 2,500 feet AGL;

(b) Within 30 miles of a Class B airspace primary airport, below 10,000 feet MSL. Balloons, gliders, and aircraft not equipped with an engine driven electrical system are excepted from the above requirements when operating below the floor of Class A airspace and/or; outside of a Class B airspace and below the ceiling of the Class B airspace (or 10,000 feet MSL, whichever is lower);

(c) Within and above all Class C airspace, up to 10,000 feet MSL;

(d) Within 10 miles of certain designated airports, excluding that airspace which is both outside the Class D surface area and below 1,200 feet AGL. Balloons, gliders and aircraft not equipped with an engine driven electrical system are excepted from this requirement.

3. 14 CFR Section 99.12 requires all aircraft flying into, within, or across the contiguous U.S. ADIZ be equipped with a Mode C or Mode S transponder. Balloons, gliders and aircraft not equipped with an engine driven electrical system are excepted from this requirement.

4. Pilots shall ensure that their aircraft transponder is operating on an appropriate ATC assigned VFR/IFR code and Mode C when operating in such airspace. If in doubt about the operational status of either feature of your transponder while airborne, contact the nearest ATC facility or FSS and they will advise you what facility you should contact for determining the status of your equipment.

Furthermore, the FAA also posted the following in the U.S. NOTAM system shortly after September 11, 2001 (this NOTAM is maintained as an active NOTAM).

U.S. NOTAM 2/5319 Excerpt:

PART II. U.S., MEXICAN OR CANADIAN REGISTERED AIRCRAFT CONDUCTING IFR/VFR OPERATIONS TO/FROM LOCATIONS OUTSIDE THE TERRITORIAL AIRSPACE OF THE U.S.

NO PERSON MAY OPERATE AN AIRCRAFT UNDER VFR OR IFR TO OR FROM THE TERRITORIAL AIRSPACE OF THE U.S. EXCEPT AS PROVIDED BELOW:

A. PART 91 VFR OPERATIONS ARE AUTHORIZED FOR AIRCRAFT WITH A MAXIMUM CERTIFICATED TAKEOFF GROSS WEIGHT OF 95,000 POUNDS OR LESS, BETWEEN THE COUNTRIES OF THE U.S., CANADA, AND MEXICO, PROVIDED ALL THE FOLLOWING CONDITIONS ARE MET:

1. THE AIRCRAFT IS REGISTERED IN THE U.S., CANADA OR MEXICO.
2. THE FLIGHT CREW AND ONLY KNOWN PASSENGERS ARE ON BOARD.
3. THE PILOT FILES AND ACTIVATES A FLIGHT PLAN.
4. THE PILOT IS IN COMMUNICATION WITH THE GOVERNING ATC FACILITY AT THE TIME OF THE BOUNDARY CROSSING.
5. THE AIRCRAFT IS SQUAWKING AN AIR TRAFFIC CONTROL ASSIGNED DISCRETE BEACON CODE.
6. THE PILOT COMPLIES WITH ALL U.S. CUSTOMS NOTIFICATIONS AND COMPLIES WITH REQUIREMENTS TO LAND AT AIRPORTS IN THE U.S., CANADA OR MEXICO DESIGNATED AS PORTS OF ENTRY.

B. PART 91 VFR OPERATIONS NORTH OF THE 54TH PARALLEL ARE AUTHORIZED FOR AIRCRAFT WITH A MAXIMUM CERTIFICATED TAKEOFF GROSS WEIGHT OF 95,000 POUNDS OR LESS, BETWEEN CANADA AND ALASKA PROVIDING THE FOLLOWING CONDITIONS ARE MET:

1. THE AIRCRAFT IS REGISTERED IN THE U.S., CANADA OR MEXICO.
2. THE FLIGHT CREW AND ONLY KNOWN PASSENGERS ARE ON BOARD.
3. ENTRY BETWEEN CANADA AND ALASKA MUST BE DONE NORTH OF THE 54TH PARALLEL.
4. TRANSPONDER EQUIPPED AIRCRAFT SQUAWK 1200.
5. THE PILOT FILES AND ACTIVATES A FLIGHT PLAN.

Note: The above is only a portion of NOTAM 2/5319. A full copy of the aforementioned NOTAM can be obtained from the following web address:
<http://www.faa.gov/ats/aat/ifim/FDC20025319.htm>

To put this all into pilot terms, when you enter U.S. airspace south of the 54th parallel, and operating under VFR, **you MUST be on a filed and open/active flight plan, in radio contact with ATC, and MUST be squawking a discrete code assigned to you by U.S. ATC** (or accepted by U.S. ATC from a foreign controller). According to the FAA ATC Command Center in Virginia, if you are out of radio contact with ATC but are maintaining a discrete transponder code assigned by a foreign controller (i.e. a discrete code other than 1200 or 2000) and operating on, and in accordance with a filed and active flight plan, that code should be passed onto the U.S. ATC facility handling the sector in which you will be entering. However, despite this expectation, pilots should take steps to ensure that this is in fact the case and obtain a new code if required. If you are entering U.S. Airspace North of the 54th Parallel, you must be on a filed flight plan and must be squawking 1200 (if so equipped) but the requirement to be in contact with ATC has been removed.

In the event that your route of flight will keep you out of radio contact with ATC (i.e. you are too low or in a bad reception area), you **MUST** obtain and squawk a U.S. assigned discrete ATC code prior to airspace entry through any means available. Whether you accomplish this by contacting Canadian ATC prior to entry (i.e. Moncton Centre, Winnipeg Centre, etc.) and ask them to contact the U.S. Center of entry (i.e. Boston Center, Minneapolis Center, etc.) for a U.S. Transponder Code, you call U.S. ATC just prior to entering U.S. airspace and get a code directly, or you call the U.S. Center via land phone line prior to departure and obtain a code, the end result is the same, you have a U.S. assigned code upon entry. The key is to have it prior to entry (a requirement that has been in effect since Sep 2001)!

If it is your intent to obtain a code via phone, please use the number that's appropriate for the entry sector:

Boston Center	603-879-6811 (Watch Desk)
New York Center	631-468-1495
Cleveland Center	Must obtain code via radio prior to entry
Minneapolis Center	651-463-5580 (Watch Desk)
Salt Lake Center	801-320-2567 (Military Operations)
Seattle Center	604-586-4595 (Vancouver Center VFR Code Office)

Exceptions to the Rule:

As with virtually any rule, there are exceptions to this one as well. Although this will only apply to a very limited audience, IAW FDC 2/5167, any aircraft operating on Medevac, Fire Fighting, Rescue/Recovery, and Emergency Evacuation can operate under VFR within U.S. Airspace (to include transit). Furthermore, aircraft operating within U.S. Airspace but outside the Internationally Recognized 12 nm International Limit from any U.S. Coastline are permitted to operate under VFR.

U.S. NOTAM 2/5167 Excerpt:

**PART II. U.S., MEXICAN OR CANADIAN REGISTERED AIRCRAFT
CONDUCTING VFR OPERATIONS.**

**NO PERSON MAY OPERATE AN AIRCRAFT IN THE TERRITORIAL AIRSPACE
OF THE U.S. UNDER VISUAL FLIGHT RULES EXCEPT AS PROVIDED
BELOW:**

A. IN THE INTEREST OF NATIONAL SECURITY, AND TO THE EXTENT PRACTICABLE, PILOTS ARE ADVISED TO AVOID THE AIRSPACE ABOVE, OR IN PROXIMITY TO, SITES SUCH AS NUCLEAR POWER PLANTS, POWER PLANTS, DAMS, REFINERIES, INDUSTRIAL COMPLEXES, AND OTHER SIMILAR FACILITIES. PILOT SHOULD NOT CIRCLE AS TO LOITER IN THE VICINITY OF SUCH FACILITIES.

. . .

H. PILOTS ARE AUTHORIZED TO DEPART VFR, WHERE VFR OPERATIONS ARE AUTHORIZED, TO ACTIVATE/FILE IFR CLEARANCES WHILE AIRBORNE.

I. **ALL U.S. MILITARY, AND U.S., CANADIAN, AND MEXICAN MEDEVAC, FIRE FIGHTING, LAW ENFORCEMENT, RESCUE/RECOVERY, AND EMERGENCY EVACUATION AIRCRAFT CAN OPERATE WITH AN ATC-ASSIGNED DISCRETE BEACON CODE**, EXCEPT U.S. MILITARY CAN OPERATE WITH/ WITHOUT A DISCRETE BEACON CODE AT THEIR REQUEST.

J. U.S. REGISTERED AIRCRAFT ACTIVELY ENGAGED IN FIREFIGHTING OPERATIONS MAY BE EXEMPT FROM THE BEACON CODE REQUIREMENT.

K. **TRANSIT OF U.S. CONTROLLED AIRSPACE BY ANY AIRCRAFT BEYOND THE TWELVE NAUTICAL MILE TERRITORIAL LIMIT IS PERMITTED.**

Note: The above is only a portion of NOTAM 2/5167. A full copy of the aforementioned NOTAM can be obtained from the following web address:

<http://www.faa.gov/ats/aat/ifim/FDC20025167.htm>

If these restrictions inhibit your ability to perform your mission, there is one more option available to you, a Fleet Waiver. The TSA Office of Special Events coordinates the process for operators seeking relief, or waivers, to restrictions to operating to/from the United States or within domestic airspace.

Note: As of May 20, 2004, the TSA has suspended "three trip" monthly frequency requirement necessary for operators to qualify for an International Fleet Waiver. This procedural change has not yet been incorporated into the TSA's Guidance for Obtaining a Fleet Waiver located online at <http://web.nbaa.org/public/ops/security/waivers/TSAGuidanceFleetWaivers.pdf>.

It is also important to note that the office hours for the TSA Office of Special Events are very limited and they're only open Monday through Friday. The office is closed on US Federal Holidays and they request at least 7 business days to process any requests.

If you're interested in pursuing this option, additional guidance and the request forms are available online at <http://web.nbaa.org/public/ops/security/waivers/>.

Flying VFR within the U.S.:

The key to flying VFR within the U.S. is preparation. Of particular interest should be obtaining VFR Sectional Charts appropriate for your route of flight (the only accurate means of determining airspace boundaries within the U.S.), a U.S. Airport Facility Directory and/or an IFR Supplement (depending upon the destination airport(s)), and GPH 270 (to include General Planning (GP) and Area Planning (AP) 1). If your route of flight involves entering U.S. Airspace from Canada, Mexico, or International Waters, and it is possible that you won't be in radio contact with U.S. ATC prior to entry, contact the ATC facility handling your entry point and obtain an entry transponder code in accordance with the aforementioned airspace entry procedures.

Prior to commencing any VFR flight within U.S. Airspace, review the VFR procedures posted in GPH 270 (Area Planning 1 (Chapter 3) and General Planning (Chapter 5))

and/or the FAR/AIM. Additional information can be found within the Jeppesen Book 1 document. Special attention should be made to the differences in airspace classifications between the U.S. and Canada with respect to dimensions, entry requirements, VFR procedures, VFR cloud clearances, ATC services, airspeed restrictions, communication requirements, etc.

With respect to gaining authorization to enter Class B, C, and D airspace, pilots should consider a utilization of their call sign by the ATC facility controlling that zone as clearance to enter the respective airspace (i.e. “CANFORCE 51, . . . “). If you attempt to contact the controlling ATC facility and the response is “Aircraft calling Boston Center, Stand-by”, they have not utilized your call sign (i.e. they have not acknowledged you) and thus you are not cleared to enter that airspace.

Customs:

When operating into the U.S., regardless of whether you are operating under IFR or VFR, your first airport of landing within the U.S. MUST be an approved Airport of Entry (AOE) or a Landing Rights Airport (LRA). To determine if an airport is on the AOE or LRA lists (there are currently over 55 AOE and over 230 LRAs), please refer to the DoD IFR Supplement, U.S. Airport Facility Directory, or the U.S. Customs website (<http://www.cbp.gov/xp/cgov/toolbox/contacts/ports/>) and look for Customs availability at the airport in question or refer to the Jeppesen Book 1 for a complete list of AOE and LRA airports. Customs should be notified at least 2 hours in advance (but no less than 1 hour) and it is recommended that you coordinate your arrival information via phone prior to departure to the U.S. Aerodrome (even if it's as much as 9+ hours in advance). All pilots must obtain prior permission from the U.S. Customs Service before arriving at an LRA (aircrew may be subject to additional landing fees if landing at a User Fee LRA). It is also recommended that you notify customs while enroute with an updated arrival time, number of passengers, and with your inbound status via phone patch with a ground station or through a local FSS (who can notify customs for you). Ultimately the pilot is responsible for insuring that Customs is properly notified and simply placing “ADCUS” in the remarks section of your flight plan is no longer considered sufficient notification. Failure to notify customs prior to arrival could result in significant fines (US \$5,000+ per violation), imprisonment, and/or aircraft impoundment (based upon the violation(s) committed).

Conclusion:

So, the bottom line is if your Maximum Certified Takeoff Gross Weight is in excess of 95,000 pounds, then VFR flight into / out of U.S. Airspace is prohibited (except IAW

FDC 2/5167). If your Maximum Certified Takeoff Weight is 95,000 pounds or less, then it your responsibility to take whatever steps are necessary to ensure that you have a U.S. assigned Transponder Code prior to entering U.S. airspace. How you acquire it is up to you but see to it that it is accomplished. In most, if not all cases, the U.S. controller will be all too happy to supply you with a code so that when you appear on the radar you won't become the next "Unknown Rider" and possibly pursued by U.S. border patrols. If you enter U.S. Airspace above the 54th Parallel, you'll have a bit more freedom to operate as you are not required to be in contact with ATC and can squawk 1200. Operating outside 12 nm from the U.S. Coastline will also provide you with some flexibility. Unfortunately there are no blanket exceptions to these rules for Foreign State/Military aircraft (except as noted above) so you must comply. Remember, you're no longer welcome into U.S. Airspace while operating VFR unless you prior coordinate your arrival with the applicable U.S. ATC facility. And lastly, be fully prepared before stepping to the aircraft if you intend to fly under VFR within the U.S. (especially if you'll be transiting Class B, C, or D airspace).

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Resources:

U.S. Department of Transportation Federal Aviation Regulations (FAR) and Aeronautical Information Manual (AIM). Available for sale at most U.S. flight equipment stores or online for free at: http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgFAR.nsf/MainFrame?OpenFrameSet (FAR) and <http://www.faa.gov/ATpubs/AIM/index.htm> (AIM) respectively.

FAA, Special Notice A0071/02 (FDC 2/5319). OPERATIONS TO/FROM LOCATIONS OUTSIDE THE U.S. Available online at <http://www.faa.gov/ats/aat/ifim/FDC20025319.htm>

FAA, Special Notice A0069/02 (FDC 2/5167). VFR OPERATIONS IN THE U.S. Available online at <http://www.faa.gov/ats/aat/ifim/FDC20025167.htm>

GPH 270, Area Planning (AP) 1, North and South America. Available online at <https://164.214.2.62/products/digitalaero/index.cfm#plan> (must be on a non-DIN computer).

GPH 270, General Planning (GP). Available online at <https://164.214.2.62/products/digitalaero/index.cfm#plan> (must be on a non-DIN computer).

Boston Center, New York Center, Indianapolis Center, Minneapolis Center, Chicago Center, Salt Lake Center, Seattle Center, Vancouver Centre, FAA ATC Command Center.