

ICAO FLIGHT PLAN IMPLEMENTATION

The FAA's NextGen program will affect our ability to fly in certain areas and flight profiles.

By Luca Bencini-Tibo

As we get closer to 2020, and as the FAA's NextGen program gets further implemented, our ability to fly in certain airspace and flight profiles will depend on installed communications and navigation equipment—including ADS-B. To be able to provide the appropriate ATC services, the use of the ICAO flight plan becomes more critical since it requires more explicit equipment codes.

At first glance, the codes may be a bit confusing since they can refer to installed equipment (e.g. VHF communications), authorizations (e.g. PBN—Performance Based Navigation), capabilities (e.g. LPV approaches) or combinations.

Coping With The Codes

For the most part, the ICAO flight plan form is not intrinsically complicated but the equipment codes at first blush might appear to be intricate. Furthermore, other than “simple” installations, it is not intuitively obvious just by looking at the panel to determine the codes. This is even more critical for pilots who rent different airplanes.

The original FAA plan was to require the use of the ICAO flight plan (FAA Form 7233-4) by October 2015; however, because of delays, the FAA is requiring its use for all flight plans—VFR and IFR—starting in February 2017. In the past, the ICAO flight plan was required for all flights in certain airspace, such as RVSM airspace (Reduced Vertical Separation Minimum FL290-

FL410), domestic flights with RNAV SIDs and STARs and international flights including operations in oceanic airspace controlled by the FAA.

It is, after all, just a flight plan, and it contains similar information required by the old FAA domestic flight plan (FAA Form 7233-1). However, the ICAO flight plan uses different words to refer to the same information found in the domestic flight plan as noted in the table below. This article will also address a major issue facing many pilots filing ICAO flight plans.

The ICAO Flight Plan form (shown on the opposing page) refers to the various sections as “ITEMs” followed by a number. The most confusing of these are: ITEM 10 Equipment and ITEM 18 Other In-

Domestic Flight Plan	ICAO Flight Plan
Aircraft Identification	Aircraft Identification
Type (of Flight Rules)	Flight Rules
Aircraft Type	Type of Aircraft
Special Equipment	Equip (COM/NAV, etc.)
Departure Point	Departure Aerodrome
Departure Time	Time
True Airspeed	Cruise Speed (TAS or Mach)
Cruising Altitude	Level (MSL or FL)
Route of Flight	Route
Destination	Destination Aerodrome
Est Time Enroute	Total EET (Est Elapsed Time)
Remarks	Other Info/Remarks
Fuel on Board	Endurance
Number Aboard	Persons on Board
Color of Aircraft	Aircraft Color and Markings
Pilot's Name & Other Info	Pilot-in-Command

Difference in wording between the old FAA and ICAO flight plan forms.

formation. Gone are the familiar special equipment codes /U: Mode C transponder or /G: GPS with Mode C transponder. With the advent of different flavors of ADS-B and new communication and navigation capabilities, there are many possible equipment code combinations.

As mentioned, what adds to the confusion, some codes simply reflect installed equipment, others reflect capabilities and still others reflect required approvals. Let's explore the most common codes that would be applicable to light general aviation aircraft.

ITEM 10 *Equipment* is divided into two parts: navigation and communication codes separated by a slash (/), followed by surveillance equipment, transponders and ADS-B equipment.

The following codes are most common for Nav/Comm equipment:

S: Standard Com/Nav/Approach ¹
V: VHF Communications Transceiver
O: VOR Receiver
L: ILS
G: GPS
B: WAAS capability for LPV approaches
D: DME
F: ADF
R: Performance Based Nav (PBN) approved ²
Y: VHF with 8.33 kHz channel spacing ³
Z: Other equipment ⁴

Notes:

1. Includes VHF communications transceiver, VOR receiver and ILS equipment. If any component is missing such as ILS, then each equipment needs to be selected individually.

2. Specific PBN capabilities need to be identified in ITEM 18.

3. Most newer Comm equipment has this capability but for now, only relevant in European airspace.

4. Specified in ITEM 18 *Other Information* (to be addressed later).

The codes are written in alphabetical order except for S. For example: SG, OV, SFG, and SBFGZ.

The surveillance codes reflect transponder and ADS-B capabilities:

C: Mode C transponder

S: Mode S transponder

E: Mode S extended squitter transponder—implies ADS-B on the transponder frequency.