IATA INFORMATION PAPER

ICAO FLIGHT PLAN CHANGES-2012

This paper provides a summary of the changes that will become effective and in order to meet ICAO Amendment 1 to PANS ATM – Doc 4444 to the ICAO Flight Plan. The applicability date to the changes is Airac cycle 15th November 2012. The paper is also intended to create awareness within IATA member airlines to the scope and impact of these changes and outlines the measures that will be required in order to comply without any disruption to flight operations.

These changes were required to reflect and update the current aircraft capabilities and in order to support an equivalent level of service from the ground.

NOTICE

DISCLAIMER: This information Paper is provided to allow

Airlines to prepare for transition to the NEW FPL format on the date of applicability.

The material contained in this document represents a combination of inputs from Amendment 1 of ICAO Document 4444 and a number of other sources related to this subject

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Airlines should refer all technical issues relating to 2012 FPL transition to the relevant States and Air Navigation Service providers.

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1.0 Background

On 15 Nov 2012 the standard ICAO format for airline flight plans will change. This global ICAO initiative will mean that several new Fields in the ICAO Flight Plan have been added and/or modified to reflect current aircraft navigational and communications capabilities; facilitating enhanced service delivery.

The successful submission, acceptance and management of airline Flight Plans and associated information is critical for flights to operate. Air Navigation Service Providers (ANSPs) are required to ensure they are able to accept and manage the new ICAO format as per the ICAO transition plan. ICAO is responsibility to ensure industry readiness and it is working with States and running regional workshops to help ensure an effective transition. It is extremely important that airlines are in communication with their appropriate Air Navigation Service Provider(s), and where appropriate Flight Plan system vendor, to understand and comply with the transition.

The Standards of ICAO *Annex 2* and *Annex 11* govern the application of the Procedures for Air Navigation Services – Air Traffic Management (*PANS-ATM, Doc 4444*). Although the contents of a flight plan are an Annex 2 Standard, the format is not. Flight planning automation systems of airlines and the flight data processing systems of Air Navigation Service Providers (ANSPs) are totally dependent upon clearly defined fields and format. Current and future needs require a high degree of automation to support operations, it is essential that a uniform application of the ICAO flight plan into a specific electronic format is adopted for the interests of safety and regularity of international aviation.

The ICAO Flight Plan (FPL) form and format is prescribed in *Doc.4444*, Procedures for Air Navigation Services- Air Traffic Management (PANS ATM), and Appendix 2. Although the ICAO FPL format is well known, used globally, and remains as the single universally accepted guideline; some minor variations in the manner in which several States have implemented these regional data adaptations within their local host data processing units has resulted in non-standard compliance.

As airlines operate on a global basis, the onus is on the user airlines to understand and comply with different State requirements and local data host systems. These diverse global requirements must be fully understood and complied with as failure to do so will result in a flight plan rejection, where such a system of validation exists. In most cases, non-compliance for an airline would be recognized only at departure time, which in turn results in the start-up clearance being delayed or refused. This will adversely impact the flight departure creating an unacceptable commercial situation which no airline wants or can afford.

1.1 Terminology

In accordance with International Civil Aviation Organization (ICAO) transition guidance documents, the following terminology is relevant to this paper:

- **PRESENT** format is defined as ICAO flight planning and ATS message formats currently in use as specified in *DOC 4444, 15th Edition*.

- **NEW** format is defined as ICAO flight planning and ATS message formats specified in Amendment 1 to *DOC 4444, 15th Edition*.

- **Applicability Date** is the 15 November 2012 effective date of Amendment 1 to *PANS-ATM (Doc 4444)*.

2.0 Field changes in PRESENT Flight Plan Form

10a-new letter/digit combinations e.g.E1, J3 etc

10b-new codes e.g. ADS-B, SSR Mode S

15-Use of Significant point as a reference point

18-

a) New Indicators e.g. STS, PBN, COM etc.

b) Standard sequencing introduced starting with STS.

c) Link with Fields 10a/b required in some cases

3.0 Outline of 2012 Changes

3.1 Review of Changes

The 'Fields' within the ICAO FPL form have been revised and enhanced considerably to support the identification of aircraft capabilities required for satellite navigation with these changes due for implementation on November 15, 2012. The enhanced features of the 2012 changes will allow for improved levels of ATC service. By cross-referencing filed equipage suffixes, such as /R (indicates flight PBN approvals), ATC clearances will include these higher levels of flight procedure efficiencies as part of the flight clearances throughout the flight.

Just as it is important for airlines (primary FPL Filers) to comply with these new requirements, it is imperative that the accepting ATC facilities recognize and accept these new formats and their contents. A globally harmonized acceptance is necessary in order to translate to a well-meaning concept into a successful implementation, particularly for those flights crossing one or several Flight Information Regions (FIR's).

FPL data captures the airplane's Communication, Navigational and Surveillance capabilities. In order for a flight to take optimal advantage of this capability, it is important for ATC systems to decode and match this capability and offer an equivalent level of service. Flight data handling and exchange especially within the larger and more sophisticated ATM systems rely on extensive automation. To achieve this most ATC facilities around the world will require major software and/or hardware changes to adapt their FPL host systems. These changes have been a long time in the planning as considerable lead time for implementation was required to allow ANSP's to fully assess their system needs as a major cost outlay was involved for some of these States.

Some State ANSP systems may not be updated in time for the implementation on Nov 15, 2012, although the identification of all these States is still unknown, they should be known prior to implementation. Although some of these States are expected to do nothing, others are likely to adopt a partial solution by integrating a 'converter'. It is logistically challenging to fully monitor the status, further, the visibility of implementation plans or any recognition of these impending changes within the 180 ICAO member States and their AIS facilities has been, at best, limited.

This has been caused in part by the fact that these changes are embodied under the hierarchy of the Global 'Procedures for Air Navigation Services' (PANS) document. As such, PANS holds no more than the status of ICAO-recommended Air Traffic Management procedures that do not carry the same authority or applicability of the ICAO Standards & Recommended Procedures (SARPs)[1]. While the concept is well-meaning, successful implementation will be key.

The timing and issuance of the State Letter issued in June 2008 allowed for over 4-years of lead-time for all system stakeholders, Airlines and ANSP's to prepare. Although the FPL format will remain relatively consistent with that being used today, numerous changes will be required to the field descriptors, dependencies and sequencing used in the ICAO Flight Plan form.

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[1] SARP's are binding on every member State, failing which non-implementation is recognized by the filing of a State 'difference to the Convention'.

By implication, airlines as the primary filers of IFR Flight Plans would need to ensure that these changes are thoroughly complied with. Failing to do so will result in rejection of a FPL and hence delays to departure.

As a consequence of these modifications, substantial system and work practice changes will be required by Airlines and Air Navigation Service Providers (ANSP's) alike. Therefore, IATA considers these changes important enough to warrant close stakeholder involvement with ICAO, Regional Planning groups and the local AIS facilities themselves.

In order to promote a smooth cut-over on the Applicability date of November 15, 2012, IATA has prepared this information paper to assist airlines and to increase the level of awareness and preparedness among IATA members.

IATA airline members are strongly encouraged to review this material to determine the impact on flight operations for:

        a. The new flight plan and ATS messages formats required as of the applicability date 15th November 2012.
        b. The specific requirements in coding the airline software changes and system automation required to support these changes to pre-empt rejection of filed FPL's.
        c. To avoid FPL rejection - review the compatibility of the local operating AIS environments that you fly in. The new flight plan and ATS message formats that will be filed as of November 15, 2012 must not be rejected.
        d. Consideration of operational procedure changes, documentation review, training material and communication plan for Flight Dispatch and Flight Crew.

3.2 Summary of the changes

The primary impacts of the 2012 FPL changes can be summarized in two categories;

    a) Field 10 –Equipment and Capabilities
    b) Field 18- Other information.

Field 10 / Field 10a differences

A : GBAS Landing Sys	**M1- M3** : ATC RTF (SATCOM, MTSAT, Iridium)
B : LPV (APV w/SBAS)	O : VOR
C : LORAN C	**P1 - P9** : Reserved for RCP
D : DME	**R** : PBN Approved
E1 – E3 : ACARS	**S** : Standard equipment
F : ADF	T : TACAN
G : GNSS	U : UHF radio
H : HF Radio	V : VHF radio
I : INS	**W** : RVSM
J1 – J7 : CPDLC	**X** : MNPS
K : MLS	**Y** : VHF w/ 8.33 kHz spacing capability
L : ILS	**Z** : Other Equipment carried or other capabilities

🟥 New qualifier   🟦 Redefined qualifier

Field 10 / Field 10b differences

N : No capability	
A : Mode A	**B1** : ADS-B 1090 Out
C : Mode A and C	**B2** : ADS-B 1090 In/Out
X : Mode S, no a/c id, no alt	**U1** : UAT Out
I : Mode S, a/c id, no alt	**U2** : UAT In/Out
S : Mode S, no a/c id, alt	**V1** : VDL In
P : Mode S, a/c id, alt	**V2** : VDL In/Out
E : Mode S, a/c id, alt, squitter	
H : Mode S, a/c id, alt, enh surv	**D1** : ADS-C FANS/1
L : Mode S, a/c id, alt, sqtr, enh	**G1** : ADS- C ATN

🟥 New qualifier   🟦 Redefined qualifier

Field 18 differences

FPL field 18 Indicator- **"PBN/"**

A1 : **RNAV 10 (RNP 10)**	**L1** : **RNP 4**
B1 : **RNAV 5 all permitted sensors**	**O1** : **Basic RNP 1 all permitted sensors**
B2 : **RNAV 5 GNSS**	**O2** : **Basic RNP 1 GNSS**
B3 : **RNAV 5 DME/DME**	**O3** : **Basic RNP 1 DME/DME**
B4 : **RNAV 5 VOR/DME**	**O4** : **Basic RNP 1 DME/DME/IRU**
B5 : **RNAV 5 INS OR IRS**	**S1** : **RNP APCH**
B6 : **RNAV 5 LORAN C**	**S2** : **RNP APCH with barometric vertical navigation**
C1 : **RNAV 2 all permitted sensors**	**T1** : **RNP AR APCH with RF (authorization required)**
C2 : **RNAV 2 GNSS**	**T2** : **RNP AR APCH without RF (authorization required)**
C3 : **RNAV 2 DME/DME**	
C4 : **RNAV 2 DME/DME/IRU**	
D1 : **RNAV 1 all permitted sensors**	
D2 : **RNAV 1 GNSS**	
D3 : **RNAV 1 DME/DME**	
D4 : **RNAV 1 DME/DME/IRU**	

■ New entry

3.3 Description of new Data Sets

3.3.1 Date of Flight (DOF)/

The Amendment 1 provisions enable flight plans to be filed up to 5 days (120 hours) prior to the Estimated Off Blocks Time (EOBT) for the flight, a significant change from the 24 hour requirement in the existing ICAO provisions and as practiced by most ANSP's around the world.

Note: Many ANSP's will still not be capable and some have advised they will not provide for filing greater than 24hours prior to EOBT.

3.3.2 Use of DOF

The Amendment 1 permits the use of a DOF/ indicator in field 18 beyond the 24 hour limit. This may trigger the usual ANSP error message within an AIS facility. Airlines are encouraged to continue monitoring the local AIS unit using prevailing FPL filing error message handling procedures.

3.3.3 Use of P1-P9 in Field 10a

In relation to the use of P1-P9 in Field 10a (Radio communication, navigation and approach aid equipment and capabilities), the 2012 changes identify alphanumeric entries for P1-P9 in Field 10a as "Reserved for RCP." Even though there is no current need or use for this information,

Airlines may consider building in a software characteristic to generate P1-P9 data, in anticipation of future requirements. This will avoid transition issues and minimize costly adaptation as these items begin to be required in the future.

3.3.4 Definition of "S" in Field 10a

The definition of standard equipment grouping in Field 10a ("S") has changed. It no longer includes ADF. A FPL may have many common elements under Field 10a that uniquely identify it as being in either PRESENT or NEW format. It will therefore be important for airlines to understand that as of 2012, ADF capability will be excluded from Field 10a ("S").

3.3.5 Consistency between Field 10a and PBN/ in Field 18

The PBN/ indicator that will be introduced with the 2012 changes reflects navigational capability with respect to accuracy as well as information regarding what type of navigational equipment is used to achieve it. This introduces a constant cross-referencing between PBN/ in field 18 and Field 10a.

This complexity could pose a logistical challenge in programming airline flight planning software because of the nature of field 18 data. Field 18 co-related entries could result in inconsistencies between the two fields. Airlines could perform consistency check to evaluate NEW FPLs by using guidelines such as the ones listed below (but not limited to):

If B1, B2, C1, C2, D1, D2, O1 or O2 are filed, then a "G" must be included in Field 10a;

If B1, B3, C1, C3, D1, D3, O1 or O3 are filed, then a "D" must be included in Field 10a;

If B1 or B4 is filed, then an "O" or "S" <u>and</u> a "D" must be included in Field 10a (i.e., "SO" or "SD" must appear in 10a);

If B1, B5, C1 or C5 are filed, then an "I" must be included in Field 10a; and

If C1, C4, D1, D4, O1 or O4 are filed, then a "D" and an "I" must be included in Field 10a (i.e., "D I" must appear in 10a).

3.3.6 Field 18 Indicators- Validity Checking & Processing

The 2012 changes clearly define the specific indicators that should be included in field 18. Furthermore, it makes the order of the indicators mandatory as opposed to an optional or preferred field data entry.

Airlines can be expected to prepare for the following field 18 entries at the very minimum and to perform a validity check of field 18 indicators as shown in the table below:

Final

Indicator	Contents
STS/	One or more of the approved specified entries, separated by spaces
PBN/	A single string containing up to 8 of the approved alphanumeric descriptors No embedded spaces
NAV/	Free text field
COM/	Free text field
DAT/	Free text field
SUR/	Free text field
DEP/	Free text field
DEST/	Free text field
DOF/	A single string in the specified date format (YYMMDD). No embedded spaces
REG/	A single string. No embedded spaces
EET/	One or more strings. Each string is: 2-5 alphanumeric characters –or- a LAT/LONG followed by a 4-digit elapsed time, from 0000 to 9959 (i.e., 0-99 hours followed by 0-59 minutes)
SEL/	A single string of four letters
TYP/	Free text *Note: Although the entry is structured when used for formation flights, it is also used when no designator is assigned and, therefore, may be any text description.*
CODE/	A single string of 6 hexadecimal characters
DLE/	One or more strings Each string consists of a valid Significant Point followed by a 4-digit elapsed time
OPR/	Free text field
ORGN/	Free text field
PER/	A single letter

Indicator	Contents
	The letter must be one of those specified in PANS-OPS (Doc 8168), as below: *Category A:* less than 169 km/h (91 kt) indicated airspeed (IAS) *Category B:* 169 km/h (91 kt) or more but less than 224 km/h (121 kt) IAS *Category C:* 224 km/h (121 kt) or more but less than 261 km/h (141 kt) IAS *Category D:* 261 km/h (141 kt) or more but less than 307 km/h (166 kt) IAS *Category E:* 307 km/h (166 kt) or more but less than 391 km/h (211 kt) IAS *Category H:* Specific procedures for Helicopters.
ALTN/	Free text field
RALT/	Free text field
TALT/	Free text field
RIF/	Route information consistent with the format of a valid Field 15c
RMK/	Free text field

Table 2: Field 18 Indicator Validity Check

3.3.7 Field 18-DEP/, DEST/, ALTN/, RALT/ and TALT/ indicators.

The changes specify that field 18 entries for DEP/, DEST/, ALTN/, RALT/ and TALT/ should contain the name and location of the aerodrome. It also requires that *"…For aerodromes not listed in the relevant Aeronautical Information Publication [AIP], indicate location as follows …".* The following guidelines will promote common interpretation and filing practices:

If the aerodrome identifier is not in ICAO DOC 7910, *Location Identifiers*, but is an approved identifier per the AIP for the State where the aerodrome is located, the name of the aerodrome should be the identifier and no additional location information is needed.

If the aerodrome is neither in DOC 7910 nor in a relevant AIP, the name of the airport should be included followed by a location as specified in the amendment. ANSPs should expect to be able to process the last text string provided as a location (Lat/Long, or bearing and distance from significant point, or fix name) to be usable in their flight plan route calculations.

3.3.8 Field 18-Use of the DLE/ indicator.

The 2012 Amendment defines a new DLE/ indicator for field 18, after which a significant point and delay time at the significant point can be filed.

The significant point in the DLE/ indicator should be required to match a significant point in Field 15c (i.e. not an implied point along an ATS route). A FPL designating an unknown point in a DLE/ indicator will generate an error message, resulting in possible rejection and/or delays.

3.3.9   Conversions

3.3.9.1 From NEW to PRESENT format

The ICAO Transitional Guidance outlines the conversion from NEW to PRESENT format. It also allows for a short transition period to allow ANSP's with a suitable length of time required to carry out host system changes. Airlines are however not required to comply with the NEW formats till the Applicability date of November 15, 2012.

In the event an ANSP decides to Transition to the ''NEW'' format prior to the Applicability date of November 2012, the onus of supporting the ''PRESENT'' and ''NEW'' format will rest with this ANSP. As such they will also be responsible for ensuring compatibility with down-line and up- line ATS offices to ensure that all airlines filings of the ''PRESENT'' format will be supported right up to the Applicability date.

Where ANSP's decide to Transition prior to the November 2012 cut-over, airlines will note the significance of changes to the Field 10a, Field 10b, and Field 18. This would be the case where some airlines might decide to cut-over earlier in order to avail of the recognition provided by Fields 10a and 10b – mainly to the PBN capabilities or for the purpose of testing.

3.3.10   Field 19

There is no requirement to include field 19 whether auto-filing or submitting to ATC unit. However airlines may choose to use FPL ORGN keyword with the AFTN address of the airline.

3.3.11   Regional Specific indicators

Even though IATA does not support indicators that are specific to certain Regions it is evident that some Regions will likely implement them. Airlines are therefore asked to refer to Regional Guidance material on the use of such indicators.

4.0 Implications of the New ICAO FPL Format changes.

4.1 Implications to the Airline(s)

The ICAO 2012 FPL changes will require airline systems to adapt and conform to the new data fields, sequence and alphanumeric coding. Likewise, the acceptance of the new format filed by the airlines as of 15 Nov 2012 is contingent to the adaptation of each of the local ATS Providers' Flight Data Processing Systems (FDPS). This compatibility will ensure that the new flight plans filed are accepted without any cause for rejection or denial of service. Although the effective date for the changes in the Filed Flight Plan (FPL) is November 15, 2012, airlines and States can transition to the new format not earlier than 1 April 2012 for ANSPs and 1 July 2012 for airlines.

After take-off, onward transmittal of the Filed FPL data and the accompanying ATS Messages in their 'NEW' formats are thereafter necessary to formulate route clearances and assign efficient terminal and arrival procedures to each airplane according to its declared capability.

It should be noted that a 'NEW' FPL format may be translated to 'PRESENT' format by the next ANSP along the route. This will, however, eliminate the new field changes in the FPL.

Maintaining the continuity of this information is therefore critical all the way till the flight arrives at its destination. Given that (FPL's) are filed at the Aerodrome of Departure, IATA also believes that it is equally critical that the Current Flight Plans (CPL) and similar data messages exchanged between ANSP's are likewise formatted and handled in a similar manner.

Note: In the event of loss of the capability declared in the CPL during the flight, pilots should report consistently to the concerned ATS unit regardless of whether the ATS unit has transitioned to NEW or still in PRESENT format.
It needs to be validated that essential data or information is both accepted and communicated down line by AIS office and ANSP along the route of flight.

Below are five main challenges that airlines are likely to face during the transition time:

a) **Delays:** In terms of the daily operation, the conformity of a FPL with the ANSP system is usually known while calling for start-up. A reject of a FPL becoming known at this late stage can only result in a flight delay and a situation that no airline can justify, much less afford.

b) **Costs**: Most airline flight planning systems are vendor-provided solutions. Hence, the system upgrades may lead to additional costs.

c) **Automation**: For airlines with in-house FPL systems there will be a challenge relating to Programming, Sequencing and Formatting to 'NEW' FPL format before the transition period (See Appendix 2).

d) The challenge of accurately **tracking 'Transition' dates** - as States randomly migrate from 'PRESENT' to 'NEW', as well as

e) Tracking States that have chosen not to adopt the PANS ATM changes.

Airlines will be required to be ready for testing 'NEW' FPL format from 1 July 2012.

Note 1: FITS database shown in Appendix 3 will be the primary source of information for the challenges listed in d) and e) above.

Note 2: ANSPs have agreed, in principal, to transition between 1April 2012-30 June 2012.

4.2 Implications to the Air Navigation Service Providers

Preparedness of ANSPs is the responsibility of ICAO. Service providers including the local and en-route host Air Traffic information systems will face numerous challenges as identified below;

The possibility for an airline operating across multiple FIR's – primarily through a mix of 'PRESENT' FIR's **after** the Transition period. Such a situation requires that these ANSP's convert the 'NEW' to the 'PRESENT' for their own use; then back to 'NEW' for onward transmission.

Specific residual ANSP uniqueness or host limitations that remain post-2012 (e.g. restricted number of characters in field 10, required sequences in field 18, etc.) The logistics of host software upgrades and costs have yet to be established.

Testing and compatibility for inter-center data exchange. with adjoining Centers. A higher level of automation usually means a higher level of effort to ensure system compatibility.

Being the dictate of an ANSP service, it is foreseeable in some rare cases (e.g. purely domestic operations) that some airlines will involuntarily remain with the 'PRESENT' format well after the 2012 deadline.

It is understood that the 2012 FPL changes will also affect ANSPs business systems such as Overflight and Terminal charge software, data warehouses and maintenance of master databases that feed, for example, Staff planning.

Besides FPL handling, other ancillary messages such as CHG, CNL, DLA etc. will also require re-adaptation within the host systems. These changes will also imply increases in Field size, accomodation of alpha-numeric data, DOF handling and handling of new switches & identifiers that will now appear on such messages.

The changes will also spill-over to Human-Machine Interfaces (HMIs) affecting ATC displays and separation and traffic management softwares that are dependent on Field 10 and Field 18 data.

There are concerns regarding storing of FPL up to 120hrs before Estimated Off-Block Time (EOBT).

5.0 IATA Strategy and Guidelines.

IATA is maximizing awareness among all airlines to ensure that they are fully prepared for and understand the requirements under these new changes.

IATA is particularly addressing the main challenges that will directly affect Airlines as users at the implementation phase and also engaging airlines in advance preparations for the changes.

It is of critical importance that airlines take a role to identify and capture any issues and differences in interpretation by ANSPs in their local area and feedback to IATA for analysis and wider promulgation to other airlines.

5.1 Supporting dual systems 'PRESENT' or 'NEW' before or after 2012.

A significant portion of the problem is addressed by limiting the exposure to two different systems – the 'PRESENT' and the 'NEW'. From an internal software logistics perspective, for an airline, this avoids the complexities involved in updating and modifying flight planning systems by means of a direct cut-over; somewhat as seen with the implementation of RVSM.

From an external procedural perspective and given the variable transition period leading up to the November 15, 2012 deadline, users will also face the dilemma of whether to maintain the functionality of the "PRESENT" system up until the cut-off date. This decision will be dictated by the transition program adopted by the major ANSP that they usually interface with.

For example, a domestic airline in Europe might find it beneficial to changeover prior to the Nov.2012 cutover in aligning to the dates of the CFMU transition. Flying back from outside the CFMU area might however pose a problem, where the NEW features might not be available in the non-CFMU ANSP's.

Therefore, supporting and maintaining two FPL systems for an extended period, as well as planning for a flight that crosses successive FIR's that fall in different stages of implementation is clearly impractical from both a service and logistical point of view and therefore IATA does not support dual system operations. The airline flight planning/dispatch services today operates to a high degree of automation.

Likewise, the data flow in the flight plan filing process within the ANSP is also reliant on a high degree of data transfer capability between ATS units. Without significant increases in workload it would be inconceivable to anticipate any manual modifications. Any 'weak link' in the data chain results in lost or corrupted flight information.

5.2 Harmonized implementations on 'Global' basis

Changes to airline flight planning systems will entail major modifications to the automation, databases and formatting. A large part of the reconstructed Field descriptors and sequence of entries are likely to result in major software changes and/or system and workload reconfigurations, all with consequent significant costs.

Further, the progress of implementation from ANSP's from different parts of the world has shown that there are risks of varied requirements of certain information. This in essence makes it difficult for airlines to manage these regional variations especially considering that this will mean programming will be done on Regional basis.

IATA strongly advocates for standardized requirements of information on global basis since this will make it easy for airlines to manage flights (in terms of FPL filing) that cuts across different regions and also the challenges of programming

5.3 Transition to new ICAO FPL Format

All Airlines will only file NEW FPL format from the applicability date of 15 Nov 2012.

ANSPs carrying out the 2012 FPL changes are implementing these changes in phases with trial phase set to begin in July 2012.

These trials will be limited in scope and time. Note that any ANSP's choosing to implement the ''NEW'' system before the applicability date will be required to ensure ''backward compatibility'' for the 'PRESENT' format.

IATA is working with major stakeholders to ensure that the industry is well prepared to transit to the "NEW" format. Airlines can monitor progress of implementation for various ANSP's across the world through the ICAO Flight Plan Implementation Tracking System (FITS)-**[See Appendix 3]**

5.4 Airline testing

As ANSP's continue to deploy the new systems that are capable to handle 2012 FPL changes, airline likewise will be required to assess their own preparedness to transition into "NEW" format. Airlines which have their Flight planning systems upgraded to handle new format should take the earliest opportunity to conduct tests. According to ICAO transition plan [**see appendix 2**] the airspace user's testing are scheduled to take place from 1 July 2012 to 31 October 2012.

IATA, however, encourages airlines to conduct tests before the scheduled time on domestic flights if the local ANSP's have already deployed new systems.

Airlines whose FPL systems have not been upgraded may also do the tests if their local ANSP's have new systems by manually making these inputs to align with the 'NEW' format on an ad-hoc basis.

It should be noted that the EUROCONTROL CFMU will soon make available a facility to test 'NEW'FPL submitted by airlines. The FAA will also provide such a facility at a time to be decided.

5.5 Airline preparedness

Airlines should assess their preparedness prior to applicability date by ensuring;

1. That they are aware of the 2012 FPL changes and their implications.

2. That they have taken necessary steps to ensure that their FPL system has been upgraded to generate and file ICAO FPL in the 'NEW' format and have tested with their local ANSPs.

3. That the ANSP's in their area of operations have deployed systems that are capable of accepting and processing 'NEW' FPL format.

4. That its Flight Crew and Flight Dispatchers are fully trained and understand the requirements of the NEW FPL format.

5. That Flight Dispatchers have a complete inventory of all aircraft on- board Communication Navigation and surveillance (CNS) equipment and their capabilities. The FPL System database should be updated to reflect the aircraft capabilities. The database should also take into account MEL items and crew capabilities on a continuous basis. Refer to **Appendix 4** for a template that will assist airlines to develop aircraft capabilities inventory. IATA encourages airlines to share a completed inventory with their local ANSPs for testing.

6. That the relevant Operational procedures and documentations have been reviewed to reflect the 2012 FPL format changes.

6.0 IATA and Industry Efforts.

IATA has been working closely with ICAO, CANSO, EUROCONTROL and other Industry stakeholders through various initiatives to ensure a smooth transition of the FPL changes. The following will provide an overview of some of these initiatives;

6.1 Flight Plan Implementation Tracking System (FITS).

This site has been developed and hosted by ICAO to help Air Navigation Service Providers and airspace users (Airlines) to monitor the implementation status of the new ICAO flight plan form established by the Amendment 1 to PANS-ATM (Doc 4444), Fifteenth Edition.

The site displays an interactive map [see **Appendix 3**] with all FIR demarcations providing status of each state. Several documents are also available for reference.

The link has been provided for your reference.

http://www2.icao.int/en/FITS/Pages/home.aspx

6.2 ICAO FPL 2012 Changes Regional workshops

The objective of the workshops are to present the contents of Amendment 1 to 15th Edition of Doc 4444 that modifies the format of the ICAO flight plan and discuss ways and means to foster a harmonised and coordinated implementation of these changes in the ICAO Planning and Implementation Regional Groups (PIRG) and globally. Airlines are advised to refer to ICAO/FAA/EUROCONTROL Regional Guidance Material for more information regarding the changes and use of specific indicators that are unique to particular regions

IATA also encourages its member airlines to actively participate in the regional workshops .Some of the planned workshops include;
- ↗ Mexico city 26th-30 March 2012
- ↗ Lima 21-24th May 2012 (dates to be confirmed).
- ↗ Dates yet to be confirmed for workshops in Africa, Asia and Eastern Europe. Please contact IATA regional office for more details.

6.3 ICAO FPL 2012 Task Forces

ICAO Regions have formed Task forces specifically to coordinate the detailed changes to the interface specifications and operational procedures, including deployment and transition issues, necessary to achieve a smooth implementation by 15 November 2012.

IATA is also encouraging airlines to take part in the task forces through coordination with IATA regional office.

Appendix 1-Sample Flight plans (New and Old Format).

GPS approach cap

CPDLC via VDL

ADF

Satellite RTF Iridium

ADS-B In/Out via Mode S extended Squitter

Example of a current FPL
(FPL- N12345- I S
- H25B/ M- SGDWRZJ/ SD
- KLAX0710
- N0438F330 HOLTZ9 TRM J169 BLH J169 TFD J50 ELP DCT
- KELP0219 KDFW
- NAV/ RNVD1E2A1 DAT/ V SEL/ BHEM)

Example of how the same flight might file in "ICAO 2012" format
(FPL- N12345- I S
- H25B/ M- ABSFGDWRZJ3MI/ SB2
- KLAX0710
- N0438F330 HOLTZ9 TRM J169 BLH J169 TFD J50 ELP DCT
- KELP0219 KDFW
- PBN/ D2 NAV/ RNVD1E2A1 GBAS SBAS SEL/ BHEM)

Perf. Based Navigation, RNAV-1 using GNSS

Type of GPS augmentation

NAV/RNV indicator is required by FAA

Red-indicates the NEW format

Final

PRESENT Format

(FPL-IAT820-IS

-B772/H-SEHRWXY/S

-OMDB1000

-N0490F320 DARAX1E DARAX UN440 MOBON W10 SITEN UP574 SYZ W3
UN618 SUBES UL610 ABETI/N0470F380 UL610 BATTY UL608 SUMUM

-EGLL0729 EGSS

-EET/OIIX0014 EHAA0657 EGTT0706 REG/7772IA OPR/IATA RVR/200
 DOF/120224 RMK/PER/C AGCS

NEW Format

(FPL-IAT820-IS

-B772/H-SFE1HJ4J5RWXYZ/LB1U1D1

-OMDB1000

-N0490F320 DARAX1E DARAX UN440 MOBON W10 SITEN UP574 SYZ W3
 MESVI UL223 SNJ/N0470F320 UL223 UMH UL124 TUDNU/N0470F340 UL124
 VAN UL852 INB/N0480F360 UL852 EDOBU UN618 SUBES UL610
 ABETI/N0470F380 UL610 BATTY UL608 SUMUM

-EGLL0729 EGSS

-PBN/B2L1S1T1 NAV/GBAS SBAS DAT/V
EET/OIIX0014 EHAA0657 EGTT0706 REG/7772IA OPR/IATA RVR/200
 DOF/120224 RMK/PER/C AGCS

- **EUR/PROTECTED** (military use within Europe) is not accepted by ICAO, but in practice allowed when the flight plan is sent directly to IFPS without any further distribution (for IFPS use only).

PRESENT Format

(FPL-QFA597-IS

-A332/H-SDHIZWRJPG/SD

-YBBN0450

-N0465F380 WIZZA DCT HARDD DCT DOUGY DCT RACHL T33 MACLA/N0465F400
- DOF/YYMMDD REG/VHEBP EET/YMMM0054 SEL/FHEG PER/C RIF/FRT N640 AD
YPAD RMK/TCAS)

NEW Format:

(FPL-QFA597-IS

-A332/H-SDE2E3FJ2J4J5M1HIZWRGY/LB1D1

-YBBN0450

-N0465F380 WIZZA DCT HARDD DCT DOUGY DCT RACHL T33 MACLA/N0465F400
     T33 LEC J141 KG Q41 HAMTN Q158 PH DCT

-YPPH0455

-PBN/A1B2B3B4B5D1L1 NAV/GPSRNAV DOF/YYMMDD REG/VHEBP
     EET/YMMM0054 SEL/FHEG PER/C RIF/FRT N640 AD YPAD RMK/TCAS)
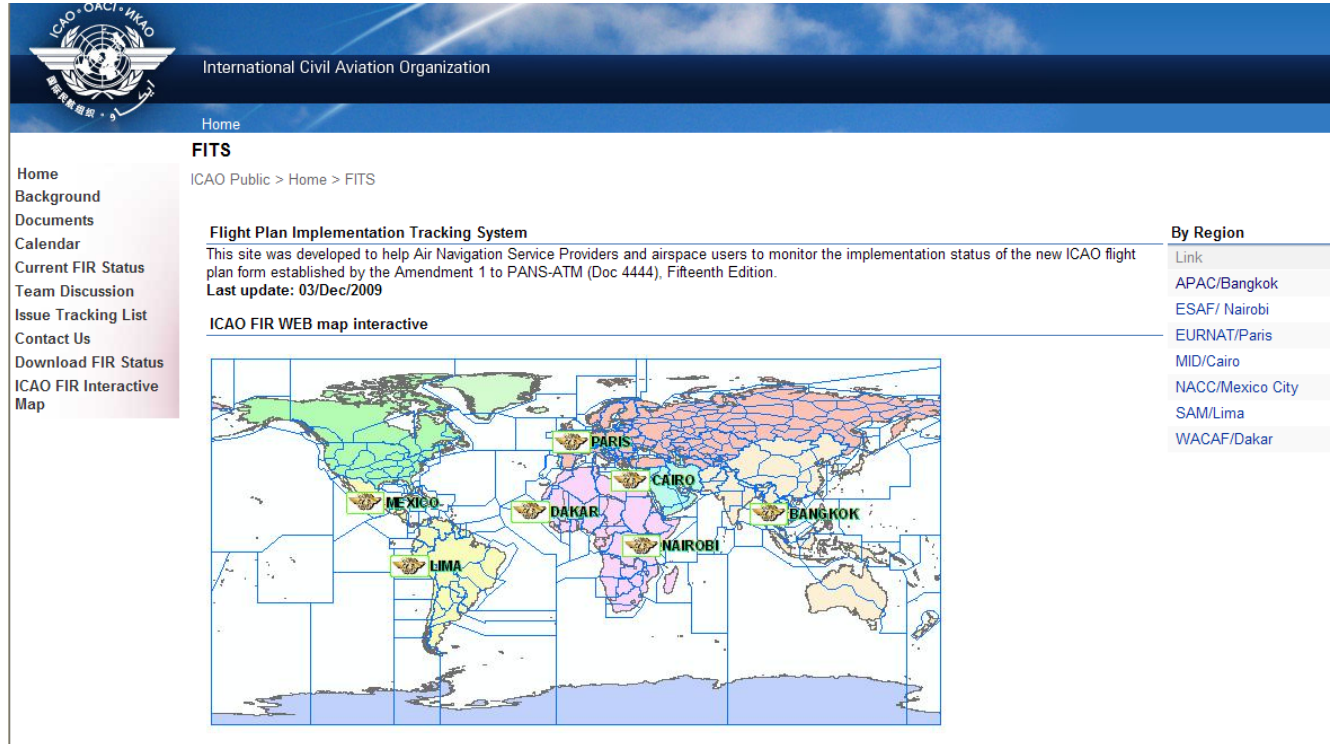
Appendix 2-Transition Chart.
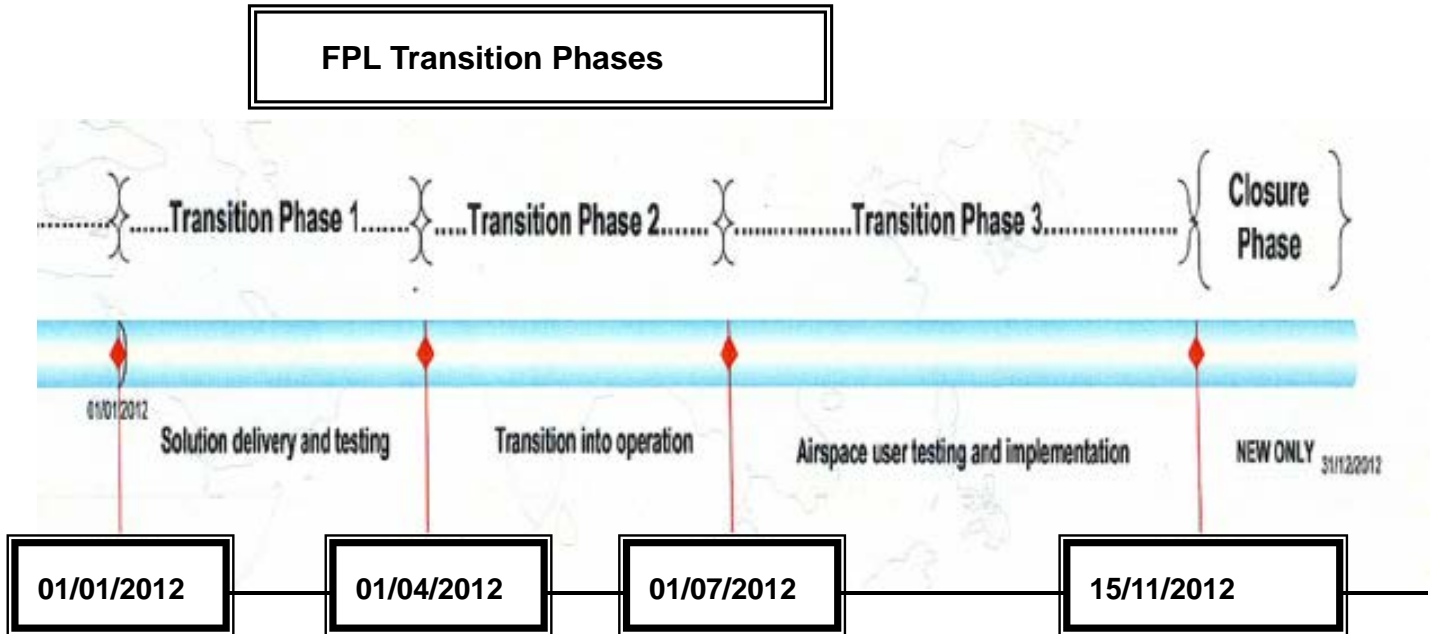
ICAO transition plan:

- Impact Assessment – End 2010
- ANSP solution production – 31 Dec 2011
- ANSP solution delivery & testing – 1 Jan 2012 to 30 April 2012
- Transition into Operations – 01 Apr 2012 to 30 June 2012
- Airspace User testing & implementation – 1 July 2012 to 31 Oct. 2012
- Only New Flight Plans Filed – From 15 Nov 2012

Appendix 3-FITS Screen shot

Link:

http://www2.icao.int/en/FITS/Pages/home.aspx

Appendix 4-Aircraft Capability Inventory

Note: The aircraft types used in these templates are for illustration purposes only, each airline will be required to include the applicable fleet type/tail number.

Aircraft capabilities affecting Field 10a

Qualifier	Descriptor	TYPE				
		B734	B738	B73Y	B763	A332
A	GBAS landing system	☐	☐	☐	☐	☐
B	LPV (APV with SBAS)	☐	☐	☐	☐	☐
C	LORAN C	☐	☐	☐	☐	☐
D	DME	☐	☐	☐	☐	☐
E1	FMC WPR ACARS	☐	☐	☐	☐	☐
E2	D-FIS ACARS	☐	☐	☐	☐	☐
E3	PDC ACARS	☐	☐	☐	☐	☐
F	ADF	☐	☐	☐	☐	☐
G	GNSS	☐	☐	☐	☐	☐
H	HF RTF	☐	☐	☐	☐	☐
I	Inertial Navigation	☐	☐	☐	☐	☐
J1	CPDLC ATNVDL Mode 2	☐	☐	☐	☐	☐
J2	CPDLC FANS 1/A HFDL	☐	☐	☐	☐	☐
J3	CPDLC FANS 1/A VDL Mode A	☐	☐	☐	☐	☐
J4	CPDLC FANS 1/A VDL Mode 2	☐	☐	☐	☐	☐
J5	CPDLC FANS 1/A SATCOM (INMARSAT)	☐	☐	☐	☐	☐
J6	CPDLC FANS 1/A SATCOM (MTSAT)	☐	☐	☐	☐	☐
J7	CPDLC FANS 1/A SATCOM (Iridium)	☐	☐	☐	☐	☐
K	MLS	☐	☐	☐	☐	☐
L	ILS	☐	☐	☐	☐	☐
M1	ATC RTF SATCOM (INMARSAT)	☐	☐	☐	☐	☐
M2	ATC RTF (MTSAT)	☐	☐	☐	☐	☐
M3	ATC RTF (Iridium)	☐	☐	☐	☐	☐
O	VOR	☐	☐	☐	☐	☐
R	PBN approved	☐	☐	☐	☐	☐
T	TACAN	☐	☐	☐	☐	☐
U	UHF RTF	☐	☐	☐	☐	☐
V	VHF RTF	☐	☐	☐	☐	☐
W	RVSM approved	☐	☐	☐	☐	☐
X	MNPS approved	☐	☐	☐	☐	☐
Y	VHF with 8.33 kHz channel spacing capability	☐	☐	☐	☐	☐
Z	Other equipment carried or other capabilities	☐	☐	☐	☐	☐

Aircraft capabilities affecting Field 10b

Qualifier	Descriptor	TYPE				
		B734	B738	B73Y	B763	A332
N	Nil Surveillance	☐	☐	☐	☐	☐
A	Transponder-Mode A (4 digits-4096 codes)	☐	☐	☐	☐	☐
C	Transponder-Mode A (4 digits- 4096 codes) and Mode C	☐	☐	☐	☐	☐
E	Transponder-Mode S, including aircraft identification, pressure-altitude and extended squitter (ADS-B) capability	☐	☐	☐	☐	☐
H	Transponder-Mode S, including aircraft identification, pressure-altitude and enhanced surveillance capability	☐	☐	☐	☐	☐
I	Transponder-Mode S, including aircraft identification, but no pressure-altitude capability	☐	☐	☐	☐	☐
L	Transponder-Mode S, including aircraft identification, pressure-altitude, extended squitter(ADS-B) and enhanced surveillance capability	☐	☐	☐	☐	☐
P	Transponder-Mode S, including pressure-altitude, but no aircraft identification capability	☐	☐	☐	☐	☐
S	Transponder-Mode S, including pressure-altitude, but no aircraft identification capability	☐	☐	☐	☐	☐
X	Transponder-Mode S with neither aircraft identification nor pressure-altitude capability	☐	☐	☐	☐	☐
B1	ADS-B with dedicated 1090 MHz ADS-B "out" capability	☐	☐	☐	☐	☐
B2	ADB-B with dedicated 1090 MHz ADS-B "out" and "in" capability	☐	☐	☐	☐	☐
U1	ADS-B "out" capability using UAT	☐	☐	☐	☐	☐
U2	ADS-B "out" and "in" capability using UAT	☐	☐	☐	☐	☐
V1	ADS-B "out" capability using VDL Mode 4	☐	☐	☐	☐	☐
V2	ADS-B "out" and "in" capability using VDL Mode 4	☐	☐	☐	☐	☐
D1	ADS-C with FANS 1/A capabilities	☐	☐	☐	☐	☐
G1	ADS-C with ATN capabilities	☐	☐	☐	☐	☐

Final

Aircraft capabilities affecting Field 18

Qualifier	Descriptor	TYPE				
PBN	**RNAV Specifications**	**B734**	**B738**	**B73Y**	**B763**	**A332**
A1	RNAV 10 (RNP 10)	☐	☐	☐	☐	☐
B1	RNAV 5 all permitted sensors	☐	☐	☐	☐	☐
B2	RNAV 5 GNSS	☐	☐	☐	☐	☐
B3	RNAV 5 DME/DME	☐	☐	☐	☐	☐
B4	RNAV 5 VOR/DME	☐	☐	☐	☐	☐
B5	RNAV 5 INS or IRS	☐	☐	☐	☐	☐
B6	RNAV 5 LORANC	☐	☐	☐	☐	☐
C1	RNAV 2 all permitted sensors	☐	☐	☐	☐	☐
C2	RNAV 2 GNSS	☐	☐	☐	☐	☐
C3	RNAV 2 DME/DME	☐	☐	☐	☐	☐
C4	RNAV 2 DME/DME/IRU	☐	☐	☐	☐	☐
D1	RNAV 1 all permitted sensors	☐	☐	☐	☐	☐
D2	RNAV 1 GNSS	☐	☐	☐	☐	☐
D3	RNAV 1 DME/DME	☐	☐	☐	☐	☐
D4	RNAV 1 DME/DME/IRU	☐	☐	☐	☐	☐
	RNP Specifications					
L1	RNP4	☐	☐	☐	☐	☐
O1	Basic RNP 1 all permitted sensors	☐	☐	☐	☐	☐
O2	Basic RNP 1 GNSS	☐	☐	☐	☐	☐
O3	Basic RNP 1 DME/DME	☐	☐	☐	☐	☐
O4	Basic RNP 1 DME/DME/IRU	☐	☐	☐	☐	☐
S1	RNP APCH	☐	☐	☐	☐	☐
S2	RNP APCH with BARO-VNAV	☐	☐	☐	☐	☐
T1	RNP AR APCH with RF (special authorisation Rqd)	☐	☐	☐	☐	☐
T2	RNP AR APCH without RF (special authorisation Rqd)	☐	☐	☐	☐	☐

Qualifier	Descriptor	TYPE				
DAT	**Additional Data application/capability - not already specified in 10a**	**B734**	**B738**	**B73Y**	**B763**	**A332**
	Please Specify	___	___	___	___	___
SUR	**Surveillance app/cap not already in 10b**					
	Please specify	___	___	___	___	___
COM	**Communications app/cap not already in 10a**					
	Please specify	___	___	___	___	___

Appendix 5-Acronyms and their Definition

ACC   Area Control Centre

ADF   Automatic Direction Finding (Equipment)

ADS   Automatic Dependent Surveillance

ADS-B Automatic Dependent Surveillance-Broadcast

AFTN   Aeronautical Fixed Telecommunication Network

AIC   Aeronautical Information Circular

AIP   Aeronautical Information Publication

AIS   Aeronautical Information Services

ALTN Alternate

ANSP Air Navigation Service Provider

ARR   Arrive

ATC   Air Traffic Control

ATM   Air Traffic Management

ATN   Aeronautical Telecommunication Network

ATS   Air Traffic Services

CFMU Central Flow Management Unit

CHG   Change

CNL   Cancel

COM   Communications

CPDLC Controller-Pilot Data Link Communication

CPL   Current Flight Plan

DAT   Significant data related to data link capability

DEP   Departure

DEST   Destination

DLA   Delay

DLE   Delay (En-route)

DOF   Date of Flight

EET   Estimated Elapsed Time

EOBT   Estimated Off Blocks Time

ETD   Estimated Time of Departure

FANS   Future Air Navigation System

FDPS   Flight Data Processing Systems

FIR   Flight Information Region

FPL   Filed Flight Plan

FPLSG   Flight Plan Study Group

GBAS   Ground Based Augmentation System

HMI   Human Machine Interfaces

ICAO   International Civil Aviation Organization

IFR   Instrument Flight Rules

LPV   Localizer Performance with Vertical Guidance

MTSAT Multi-function Transport Satellite

NAV   Navigation

NOTAM   Notice to Airmen

OPR   Operate

ORGN   Origin

PANS   Procedures for Air Navigation Services

PBN   Performance Based Navigation

PER   Aircraft Performance data

PIRG   Planning and Implementation Regional Group

RALT   En-route Alternate

RCP   Required Communications Performance

REG   Registration

RIF   Re-clearance in Flight

RMK   Remark

RNAV   Area Navigation

RNP   Required Navigation Performance

RQP   Request Flight Plan

RQS   Request Supplementary Flight Plan

RVSM   Reduced Vertical Separation Minima

SARPS   Standards and Recommended Practices

SATCOM   Satellite Communications System

SEL   Selective Call Code

STS   Reason for Special handling by ATS

TALT   Take –Off Alternate

TMA   Terminal Control Area

TYP   Type of Aircraft

VDLM   VHF Data Link Mode