



International Civil Aviation Organization  
Western and Central African Office

**First Meeting of the AFI Flight Plan Transition Task Force  
 (FPLT TF/1)  
 (Johannesburg, South Africa, 13 - 14 September 2010)**

**Agenda Item 2: Update on latest developments in the preparation for 2012 implementation**

**UPDATE ON LATEST DEVELOPMENTS IN THE PREPARATION FOR 2012 IMPLEMENTATION**

(Presented by the Secretariat)

<b>SUMMARY</b>	
This paper presents information on preparatory and other developments related to implementation of the ICAO provisions from Amendment 1 to the 15th Edition of Doc 4444.	
Action by the meeting is at <b>paragraph 3.</b>	
<b>REFERENCES</b>	
SP AFI RAN 2008	Report
ATS/AIS/SAR SG/11	Report
APIRG17	Report
This Working Paper is related to Strategic Objectives: <b>A and D</b>	

**1. INTRODUCTION**

1.1 On 28 May 2008, amendment No. 1 to the Fifteenth Edition of the Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444) was approved, calling for substantial changes to ICAO flight plan to take effect from 15 November 2012. The interim edition of the amendment is available as an attachment to State letter AN 13/2.1-08/50 dated 25 June 2008 on the ICAO-NET ([www.icao.int/icaonet](http://www.icao.int/icaonet)).

1.2 The nature and scope of Amendment 1 to the 15th Edition of PANS-ATM, Doc 4444, is, amongst others, to update the ICAO model flight plan form in order to meet the needs of aircraft with advanced capabilities and the evolving requirements including compatibility of automated ATM systems, thereby supporting the realization of enhanced safety, efficiency and environmental benefits.

1.3 In order to have a clearer understanding of the challenges facing this process, it is important that a review on progress and development made in globally in the implementation of the new ICAO model flight plan, be taken into consideration when formulating the AFI Regional implementation strategy and plan.

## 2. DISCUSSION

2.1 The following are some of the issues raised by the **EUR/NAT Region 2012 FPL Task Force** discussions during their meeting from 7-8 September 2009:

- a) The 2012 FPL TF observed that in Amendment 1 to the 15<sup>th</sup> Edition of the PANS-ATM Doc 4444, there are some detailed requirements which are not clear, and may possibly be inconsistent;
- b) There is a general issue of additional updates to Doc 4444, which may be needed prior to Nov 2012, such as the need to cover European requirements for EXM833 and PROTECTED indicators (respectively for flights exempt from 8.33KHz and for indicating flight plans which should only be available to ATC, such as security sensitive flights).
- c) While it is desirable that most ANSPs are ready by 15 November 2012, a small number of ANSPs who are served with flight plan data by EUROCONTROL's IFPS indicated that they do not wish to make the transition to the new FPL contents on 15 November 2012, owing to their plans to replace their FDPs in the years following 2012. These ANSPs requested EUROCONTROL to provide the translation function from new FPL contents back to old FPL contents in the IFPS for an extended period until their new FDPs are operational. EUROCONTROL expressed concern about this request, particularly regarding cost and probable operational consequences concerning consistency of information between pilot and controller.
- d) The lack of response from States to ICAO requests for provision of impact statements on the use of the revised ICAO flight plan contents on their procedures and data exchange mechanisms.
- e) EUR Region States were invited to provide statements on initial assessments on the impact of the new ICAO flight plan content. This information will be used to develop a EUR Region Implementation Plan, which would include:
  - Introduction, Context and Scope
  - Summary of systems and interfaces known to be impacted by the change
  - Plans for testing
  - Plans for cut-over to the new flight plan contents
  - Any identified risks and red flags

2.2 The following is a reflection of some of the issues raised by **APANPIRG FPL & AM TF/2** in November 2009:

- a) The Task Force was of the view that, in a general sense, the guidance provided by ICAO HQ did not adequately address the matters related to field size (i.e. number of characters) for the various fields in the flight plan. It was noted that software coders could not work with open ended fields, and that consequently ANSPs had specify the field sizes. However, rather than leave the matter to each State, the FPL & AM TF/2 agreed that Asia/Pacific requirement for a defined number of characters per field or sub field that also complied with relevant Annex 10 Volume II AFTN provisions would result in worthwhile standardisation and economies for States.
- b) Neither the present nor the new flight plan provisions made allowance for an equipment field in Section 6 & 7 of Appendix 2 of the PANS-ATM in relation to Repetitive Flight Plans (RPL). The absence of such a field had led to local arrangements being agreed within and between some States in some instances to enable equipment to be notified on RPLs
- c) In relation to ADS-B in Field 10b, Amendment 1 specifies six different codes to file for ADS-B capability (B1, B2, U1, U2, V1, V2). However the items E and L also specify a Mode S squitter ADS-B capability. As such, the E and L entries appear to be redundant with items B1 and B2.
- d) The meeting also discussed the ongoing matter in relation to whether “J” would be confirmed as a wake turbulence designator, and in this regard noted that the numbers of A380 aircraft operating in the APAC Region continued to increase.
- e) It was desirable to take advantage of the need to code software for the Amendment 1 implementation to also code the “J” wake turbulence designator, resulting in significant cost and effort savings for States.
- f) Copy of the APAC Regional Strategy for implementation of the November 2012 FPL provisions, which was developed in March 2009 and revised in November 2009, is at **Appendix A** to this working paper.
- g) In order to ensure a harmonized implementation of the new flight plan provisions the APAC Region has developed Regional guidelines. The material is expected to be of specific assistance when coding software changes in automation systems needed to support the changes to flight plan and ATS message formats Flight Plan and associated ATS Messages formats. As such the APAC Region developed Regional guidance material for use by APAC States. The material is reflected at **Appendix B** to this working paper.

2.3 The following are some of the issues raised by the **MID Region IFPL Study Group**:

- a) Responses from States regarding the FPL provisions implementation, was generally low.
- b) In February 2010 the MID IFPL Study Group developed a Draft Strategy for the Implementation of ICAO New Flight Plan Format and Supporting ATS Messages. The Draft Strategy is reflected at **Appendix C** to this working paper

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information in this working paper;
- b) consider use of the globally available information in developing Regional tools to facilitate implementation of the new flight plan provisions.

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## ASIA/PACIFIC REGION

### STRATEGY FOR THE IMPLEMENTATION OF NEW ICAO FLIGHT PLAN FORMAT AND SUPPORTING ATS MESSAGES

#### Recognizing that:

- 1) The *Global Air Traffic Management Operational Concept* (Doc 9854) requires information management arrangements that provide accredited, quality-assured and timely information to be used to support ATM operations;
- 2) ATM Requirement 87 in the *Manual of Air Traffic Management System Requirements* (Doc 9882) provides that 4-D trajectories be used for traffic synchronization applications to meet ATM system performance targets, explaining that automation in the air and on the ground will be used fully in order to create an efficient and safe flow of traffic for all phases of flight;
- 3) The amended ICAO Flight Plan and associated ATS Message formats contained in Amendment 1 to the Fifteenth Edition of the PANS ATM (Doc 4444, applicable 15 November 2012) have been formulated to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management systems;
- 4) The implementation of the amended ICAO Flight Plan and ATS Message formats has been adopted by APANPIRG/20 as Regional Performance Objective 5, and
- 5) The complexities inherent in automated computer systems preclude the adoption of a single regional implementation date and transitions to the new flight plan provisions will therefore occur in accordance with the declared transition period described in this document.

#### The Asia/Pacific implementation of Amendment 1 to the PANS-ATM shall:

- 1) Ensure that all States and airspace users implement the provisions of Amendment 1 from 15 November 2012, not just selected aspects of the Amendment;
- 2) Acknowledge that States not implementing Amendment 1 from 15 November 2012 are obligated by ICAO provisions to publish, preferably by 12 January 2012, the non compliance in State AIP as a 'significant difference' and will be included on the APANPIRG List of Deficiencies in the ATM/AIS/SAR Fields; and
- 3) Ensure that, from 15 November 2012, all States and airspace users accept and disseminate 'NEW' flight plan and associated ATS message formats only and capabilities for 'PRESENT' flight plan provisions are discontinued.

*(Note: In the context of the implementation, 'PRESENT' refers to the existing flight planning and ATS message formats as defined in the current version of the PANS-ATM and 'NEW' refers to the amended provisions as contained in Amendment 1 to the PANS-ATM.)*

FPL&AM/TF/2 & Seminar  
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**The Asia/Pacific transition to the PANS-ATM Amendment 1 provisions shall:**

- 1) Comply with the regional guidance provided by APANPIRG's Asia/Pacific Flight Plan and ATS Messages Task Force (FPL&AM/TF);
- 2) Preserve global consistency in implementation by basing implementation activities, to the extent possible, on Guidelines 1 to 6 described in the ICAO guidance material in State Letter AN 13/2.1-09/9, dated 6 February 2009;
- 3) Ensure that the FPL&AM/TF undertakes coordination to facilitate harmonization with implementations in neighbouring regions;
- 4) Minimize State specific constraints and, if constraints are identified as necessary, implement such constraints on a regional or sub regional basis in preference to an individual State basis;
- 5) Declare a transition period from 1 January 2012 until 15 November 2012, comprising:
  - 1 January to 31 March 2012 - ANSPs software delivery and internal testing,
  - 1 April to 30 June 2012 – ANSPs external testing and implementation, and
  - 1 July to 15 November 2012 – airspace users testing and implementation.
- 6) Not implement 'NEW' capability by States before the commencement of the ANSPs external testing and implementation period (i.e. no ANSP 'NEW' before 1 April 2012) and, insofar as possible, complete ANSP implementation of 'NEW' capability by the end of the ANSPs external testing and implementation period (i.e. complete ANSP 'NEW' before 30 June 2012);
- 7) Recognizing the risk to automated systems of having all users simultaneously commencing 'NEW' on the common implementation date (15 November 2012), encourage users to take full advantage of the airspace users testing and implementation period to ensure operational readiness of flight planning systems;
- 8) Encourage ANSPs and airspace users to coordinate appropriate implementation methodologies in order to ensure a staggered migration of airspace users to 'NEW' during the airspace users testing and implementation period (i.e. 1 July – 15 November 2012);
- 9) Encourage States and users to immediately commence preparations to implement Amendment 1 provisions in accordance with the declared transition period and report progress to the FPL&AM TF periodic meetings;
- 10) Require States to inform the Regional Office of scheduled transition date by 1 July 2010 in accordance with APANPIRG Conclusion 20/8, for relay to the FPL&AM TF;
- 11) To mitigate Date Of Flight (DOF) complexities, adopt a regional approach that does not require processing of flight plans more than 24 hours prior to Estimated Off Blocks Time (EOBT) during the declared transition period;
- 12) Require that States retain capability to simultaneously support 'PRESENT' and 'NEW' provisions (flight plan and ATS message format) from the activation of their 'NEW' capabilities until the end of the transition period (i.e. until 15 November 2012), at which point 'PRESENT' capability shall be discontinued;

*(last amended FPL&AM TF/2, November 2009)*

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**FPL&AM TF - TASK LIST**

(last amended FPL&AM/TF 2, November 2009)

ID	Task Name	Start Date	Finish Date	Completion Date	Resource Names/Remarks
<b>1.0</b>	<b>PANS-ATM</b>				
1.1	Review of Amendment 1 to PANS-ATM	17 Mar 09	17 Mar 09		
1.2	Clarification request to ICAO headquarters				
1.3	IATA to study the eligibility in the equipment listing of Item 10 – only file parameters that relate to flight to destination and alternate destination				IATA
1.4	Study the sequencing in the Item 10				
1.5	IATA to study whether the 16 character limitation in PBN/ in Item 18 is sufficient				IATA
1.6	Study on the suitability of deriving regional character limitations in other fields and sub-field				
1.7	State survey of local peculiarities including the DOF use				
1.8	RPL management – include equipment field				
<b>2.0</b>	<b>Regional Transition Strategies</b>				
2.1	Review of the “guidance for implementation of flight plan information to support Amendment 1”	17 Mar 09	17 Mar 09		
2.2	Preparation of coordinated Asia/Pacific transition strategies and plans				
2.3	Adoption of the Strategy by APANPIRG				
2.4	IATA to inform TF/2 about details of transition arrangements				
2.5	Regional Office to relay details of IATA transition arrangements				
<b>3.0</b>	<b>AIDC</b>				
3.1	Identification of impact on AIDC operations				
3.2	Update of AIDC ICD				
<b>4.0</b>	<b>Contingency Planning</b>				
4.1	Preparation of contingency strategies				

**ASIA/PACIFIC GUIDANCE MATERIAL FOR THE  
IMPLEMENTATION OF AMENDMENT 1 TO THE 15<sup>th</sup> EDITION OF  
PROCEDURES FOR AIR NAVIGATION SERVICES – AIR TRAFFIC MANAGEMENT  
(PANS-ATM, Doc 4444)**

**1. Background**

1.1 In order to ensure a harmonised implementation of the provisions contained in Amendment 1 to the 15<sup>th</sup> Edition of PANS-ATM relating to comprehensive changes to the ICAO Flight Plan and associated ATS Messages formats, this Asia/Pacific regional guidance material has been developed by APANPIRG's Asia/Pacific ICAO Flight Plan and ATS Messages Task Force (FPL&AM/TF). The material will be further developed during 2010 and presented to APANPIRG/21 in September 2010 for formal adoption.

1.2 Asia/Pacific (APAC) States and Air Navigation Service Providers (ANSPs) are encouraged to use this material as general implementation guidance for the new flight plan and ATS messages formats required by Amendment 1 to PANS-ATM for applicability date 15<sup>th</sup> November 2012. The material is expected to be of specific assistance when coding software changes in automation systems needed to support the changes to flight plan and ATS message formats

1.3 The FPL&AM/TF considers that it is of critical importance to conduct validity checking of Filed Flight Plans (FPL) and Air Traffic Service (ATS) Messages filed with and between all Asia/Pacific States and ANSPs, and to ensure that Current Flight Plans (CPL) and other messages exchanged between States and ANSPs are likewise formatted and handled in a similar fashion. In this manner, users/filers are assured that FPLs and associated messages are checked with the same level of scrutiny independent of where the flight originates. Additionally, they are assured that critical flight data information is passed intact by each Asia/Pacific State and ANSP along the route of flight.

**2. Terminology**

2.1 In accordance with International Civil Aviation Organization (ICAO) transition guidance documents, the following terminology is used throughout this guidance material:

- **PRESENT** format is defined as ICAO flight planning and ATS message formats currently in use as specified in DOC 4444, 15<sup>th</sup> Edition.
- **NEW** format is defined as ICAO flight planning and ATS message formats specified in Amendment 1 to DOC 4444, 15<sup>th</sup> Edition.
- **Applicability Date** is the 15 November 2012 effective date of Amendment 1 to PANS-ATM (Doc 4444).



### **3. Transition Period & Phased Implementation**

3.1 The FPL&AM/TF considers that applying an implementation strategy whereby all user switchovers to NEW format occur on the same day (i.e. on Applicability Date) would result on an unmanageable impact on ANSPs systems with a very real risk of automation system crashes. As such, the pre-implementation ANSP safety case analyses are expected to indentify this implementation scenario as a safety hazard that requires effective mitigation.

3.2 Under the phased arrangements agreed by the FPL&AM/TF for application in the Asia/Pacific Region, ANSP implementation of NEW format (whilst simultaneously retaining PRESENT capability) would take place first, followed by a staggered user switchover to NEW capability.

3.3 The transition period is defined as the declared Asia/Pacific transition period from 1 January 2012 until 15 November 2012, as outlined in the updated Asia/Pacific Region *Strategy for the Implementation of NEW ICAO Flight Plan Format and Supporting ATS Messages* proposed by FPL&AM/TF/2 (November 2009), comprising the following phases:

- **Phase 1** - ANSPs software delivery and internal testing
  - 1 January to 31 March 2012,
- **Phase 2**– ANSPs external testing and implementation
  - 1 April to 30 June 2012, and
- **Phase 3**– Airspace users testing and implementation.
  - 1 July to 15 November 2012

3.4 Under the phased approach, States will not implement NEW capability before the commencement of the ANSPs external testing and implementation period on 1 April 2012 and, insofar as possible, would complete implementation of NEW capability by the end of the ANSPs external testing and implementation period on 30 June 2012. Following this, airspace users would be invited by AIC or NOTAM to commence testing with ANSPs from 1 July 2012. Importantly, ANSPs and users would be encouraged to coordinate appropriate implementation methodologies in order to ensure a staggered migration of airspace users to NEW during the airspace users testing and implementation period (i.e. 1 July – 15 November 2012).

### **4. DOF/ - Five Day (120 hour) Advance FPL Lodgement**

4.1 The Amendment 1 provisions enable flight plans to be lodged 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 provisions.

4.2 Present experience in the Asia/Pacific region with FPLs submitted well in advance of EOBT (within the present 24 hour window) is that this practice precipitates a large number of CHG messages as operators change aircraft type, or tail number on a same type but with different equipage, or vary the ETD, or a variety of other modifications to what has originally been filed. As meteorological conditions change after the FPL has been filed, route changes and altitude changes also manifest, requiring modification messages as well. Overall, the existing 24 hour window generates a significant amount of message traffic that does not add apparent value to the aircraft operator and increases complexity for the many ATS units along the path of flight that have to process the extra modification messages. To address this existing problem, in one instance an Asia/Pacific State has already published a constraint in AIP under which flight plans are not accepted more than 8 hours prior to EOBT.

4.3 The extension of the filing period from 24 hours to 120 hours is expected to compound these effects, particularly in respect to meteorology factors as changes to the flight plan become necessary on the basis of updated weather reports received within the 5 day period before departure.

4.4 Investigations by the FPL&AM/TF have been unable to identify required operational circumstances in the Asia/Pacific Region where FPL lodgement earlier than 24 hours was necessary to meet the medium term needs of States. A similar situation is reported by IATA in respect to Asia/Pacific operators.

4.5 Discussions during the FPL&AM/TF/2 meeting highlighted the difficulties being experienced by many States in terms of civil aviation funding. In the case of the 120 hour lodgement provision, it was difficult for States to justify a business case for changes to what was often a number of legacy systems within a State when there was no clear operational requirement driving the change. Such changes would, of course, be included by States in the specification for new system procurement but, in the absence of a clear operational need, the business case for retrofit by Asia/Pacific States does not appear sound.

4.6 Notwithstanding, some States already have some capacity for DOF, albeit disabled in their systems at the moment. In these cases, where financial impacts were much less, it was logical for such ANSPs to proceed with 120 hour lodgement capability. It is also possible that some States will prefer to proceed with a DOF retrofit to legacy systems in time for the November 2012 implementation. However, the potential impacts of the implementation of an 'island' airspace which was accepting 120 hour lodgement should be considered in terms of the impact of neighbouring airspaces not accepting 120 hour lodgements, particularly in relation to AIDC configuration.

4.8 In light of the issues presently associated with the 5 day (120 hour) lodgement provision, including business case difficulties, the FPL&AM/TF does not support a compulsion on all Asia/Pacific States to meet the 120 hour lodgement provision by 15 November 2012. Accordingly the position adopted in the Asia/Pacific interim regional implementation strategy (Appendix A refers) has been proposed to APANPIRG for strengthening from the current *"..consider a constraint..."* to *"...adopt a regional approach that does not require processing of flight plans more the 24 hours prior to EOBT during the declared transition period..."*.

4.9 This is expected to mitigate the transition issues associated with DOF/ matters and reduce transmission of superfluous modification messages and the associated loading on messaging systems. DOF/ complexities will be further considered by States after the November 2012 implementation and, in any case, would be incorporated into new systems as they were specified, procured and commissioned.

## **5. Software Coding Considerations**

### **Date of Flight (DOF) and Early Filing**

5.1 In Amendment 1, use of a DOF/ indicator in Item 18 is accompanied by the ability to file NEW format up to 120 hours in advance. As it is likely that not all ANSPs will implement the 120 hour requirement by the Applicability Date, the following guidelines regard use of DOF/:

- a) An ANSP that does not implement the 120 hour requirement should handle such messages in accordance with normal ANSP error message handling procedures if that message has a DOF/ that is beyond their implemented time frame (i.e. more than *nnn* hours in advance, often limited to 24 hours). This ensures such messages are processed for the intended day of flight.

- b) At a defined time before Estimated Off Blocks Time (EOBT), normally within 24 hours, DOF/ can be removed from stored FPLs. In any case, DOF/ should not be transmitted in AIDC messages since flight data is first coordinated by AIDC much less than 24 hours before departure (and in fact, in most cases, is first coordinated after departure).

Use of P1-P9 in Field 10a

5.2 In relation to the use of P1-P9 in Field 10a (Radio communication, navigation and approach aid equipment and capabilities), Amendment 1 identifies alphanumeric entries P1-P9 in Field 10a as “Reserved for RCP.” The following guidelines regard filing and processing P1-P9 in Item 18:

- a) Even though there is no need for this information now, ANSPs should accept P1-P9 if filed in an FPL and pass the information in AIDC messages, but with no interpretation or processing required. This will avoid transition issues and minimize necessary coordination when these items begin to be used in the future.

Changed definition of “S” in Field 10a

5.3 Amendment 1 changes the definition of standard equipment in Field 10a (“S”) so that it no longer includes ADF. An FPL may have elements that uniquely identify it as being in either PRESENT or NEW format. However, it is also possible for an FPL to have no unique elements, and thus be valid as both PRESENT and NEW format. In such an FPL, use of “S” in Field 10a is ambiguous.

5.4 Therefore, it is essential to know whether an FPL is in NEW or PRESENT format before interpreting an “S” filed in Field 10a. The following guidelines regard filing and processing of “S” during Phases 2 and 3 of the transition period, respectively (i.e. 1 April to 30 June & 1 July to 15 November 2012).

- a) In conjunction with the beginning of Phase 2 of the transition period (i.e. 1 April 2012), ANSPs should not assume ADF capability when an “S” is filed, regardless of the perceived format of the filed FPL (NEW or PRESENT format). All FPLs received on or after 1 April 2012 with an “S” filed in Field 10a will be processed and/or interpreted as if “V O L” (VHF RTF, VOR and ILS) were filed; and
- b) States and ANSPs must provide instructions to their users to file an “F” for ADF in addition to filing of “S” in PRESENT format FPLs, beginning 1 April 2012.

Consistency between Field 10a and PBN/ in Item 18

5.5 The PBN/ indicator introduced by Amendment 1 conveys not only navigational capability with respect to accuracy, but also information regarding what type of navigational equipment is used to achieve it. This introduces a relationship between PBN/ in Item 18 and Field 10a, and it is possible to file inconsistent data (i.e., capabilities in PBN/ that are not supported by data in Field 10a). Consequently, a consistency check should be coded to evaluate NEW FPLs per the following guidelines:

- 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” and 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).

#### Validity Checking & Processing of Item 18 Indicators

5.6 Amendment 1 indicates that only the specified indicators should be included in Item 18. Furthermore, it makes the order of the indicators mandatory as opposed to preferred. Finally, the rules for some items are quite explicit and could readily be subject to validity checking by automation systems. The following guidelines regard use of Item 18:

- a) Systems should not accept indicators in Item 18 which are not defined in the PANS-ATM. If internal requirements create the need to use a ‘local’ non-standard indicator, measures must be taken to ensure that airspace users filing with multiple FIRs are not impacted, and AIDC coordination does not contain any such indicators.
- b) Airspace users should file indicators in the required order to ensure that systems applying truncation do not eliminate more important data. ANSPs should either enforce the required order, or ensure that AIDC messages contain the items in the required order regardless of the order filed.
- c) Airspace users should only file a single instance of each indicator, though, when prescribed, multiple entries may follow that indicator, separated by a space (blank). ANSPs should either enforce the filing of a single instance of indicators, or ensure that AIDC messages concatenate (i.e. link together) multiple instances into a single instance followed by multiple entries (each separated by a space).

5.7 ANSPs should, at a minimum, perform a validity check of Item 18 indicator contents that are used for processing, and they are encouraged to check all items not listed as “free text field” in the Table 5-1, Item 18 Indicator Validity Check, below.

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

Indicator	Contents
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 <i>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.</i>
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 The letter must be one of those specified in PANS-OPS (Doc 8168), as below: <ul style="list-style-type: none"> <li>• <b>Category A:</b> less than 169 km/h (91 kt) indicated airspeed (IAS)</li> <li>• <b>Category B:</b> 169 km/h (91 kt) or more but less than 224 km/h (121 kt) IAS</li> <li>• <b>Category C:</b> 224 km/h (121 kt) or more but less than 261 km/h (141 kt) IAS</li> <li>• <b>Category D:</b> 261 km/h (141 kt) or more but less than 307 km/h (166 kt) IAS</li> <li>• <b>Category E:</b> 307 km/h (166 kt) or more but less than 391 km/h (211 kt) IAS</li> <li>• <b>Category H:</b> Specific procedures for Helicopters.</li> </ul>
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 5-1:** Item 18 Indicator Validity Check

Processing location information in the DEP/, DEST/, ALTN/, RALT/ and TALT/ indicators in Item 18.

5.8 Amendment 1 specifies that Item 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:

- a) 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.
- b) 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.

Use of the DLE/ indicator in Item 18.

5.9 Amendment 1 defines a new DLE/ indicator for Item 18, after which a significant point and delay time at the significant point can be filed. The following guidelines regard filing and processing of this indicator:

- a) 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). An FPL designating an unknown point in a DLE/ indicator should be handled in accordance with normal ANSP error message handling procedures.

## **6. Conversion from NEW format to PRESENT format**

6.1 As described in the ICAO material in the attachment to State letter AN 13/2/1-09/9, conversion from NEW to PRESENT format will be required during the transition period and will affect Field 10a, Field 10b, and Field 18. It is extremely important that such conversions from NEW format to PRESENT format are consistently applied by Asia/Pacific ANSPs and, preferably, throughout all ICAO regions. The guidelines contained in the Conversion Tables for respective fields included below record regionally agreed conversions from NEW to PRESENT format for consistent application by ANSPs.

Conversion of Field 10a

6.2 Table 6-1: *Conversion of Field 10a*, as shown below, is to be used for conversion of NEW Field 10a to PRESENT Field 10a. In using the Table, ensure a check is made for the presence of the information in both the “Field 10a” and “Field 18” NEW columns and convert it to the information in both the “Field 10a” and “Item 18” in PRESENT columns.

‘NEW’ Data Content		Conversion to ‘PRESENT’ Data Content	
Field 10a	Item 18	Field 10a	Item 18
N		N	
S		V O L	
S F		S	
A		Z	NAV/GBAS
B		Z	NAV/LPV
C		C	
D		D	
E1		Z	COM/FMC WPR ACARS
E2		Z	COM/DFIS ACARS
E3		Z	COM/PDC ACARS
F		F	
G		G	
H		H	
I		I	
J1		J	DAT/V
J2		J	DAT/H
J3		J	DAT/V
J4		J	DAT/V
J5		J	DAT/S
J6		J	DAT/S
J7		J	DAT/S
K		K	
L		L	
M1		Z	COM/INMARSAT

‘NEW’ Data Content		Conversion to ‘PRESENT’ Data Content	
Field 10a	Item 18	Field 10a	Item 18
M2		Z	COM/MTSAT
M3		Z	COM/IRIDIUM
O		O	
P1-P9		<i>Reserved- should not be present. <b>Remove</b> items if present (i.e. do not make information part of the PRESENT format plan).</i>	
R	PBN/A1	R Z	NAV/RNP10
R	PBN/B1	R	
R	PBN/B2	R	
R	PBN/B3	R	
R	PBN/B4	R	
R	PBN/B5	R	
R	PBN/B6	R	
R	PBN/C1	R Z	NAV/RNAV2
R	PBN/C2	R Z	NAV/RNAV2
R	PBN/C3	R Z	NAV/RNAV2
R	PBN/C4	R Z	NAV/RNAV2
R	PBN/D1	P R	
R	PBN/D2	P R	
R	PBN/D3	P R	
R	PBN/D4	P R	
R	PBN/L1	R Z	NAV/RNP4
R	PBN/O1	P R	NAV/RNP1
R	PBN/O2	P R	NAV/RNP1
R	PBN/O3	P R	NAV/RNP1
R	PBN/O4	P R	NAV/RNP1



‘NEW’ Data Content		Conversion to ‘PRESENT’ Data Content	
Field 10a	Item 18	Field 10a	Item 18
R	PBN/S1	R Z	NAV/RNP APCH
R	PBN/S2	R Z	NAV/RNP APCH BARO VNAV
R	PBN/T1	R Z	NAV/AR APCH RF
R	PBN/T2	R Z	NAV/AR APCH
T		T	
U		U	
V		V	
W		W	
X		X	
Y		Y	
Z	COM/ nnnn	Z	COM/ nnnn
Z	NAV/ nnnn	Z	NAV/ nnnn
Z	DAT/ nnnn	Z	COM/ nnnn

**Table 6-1:** Conversion of Field 10a

Conversion of Field 10b

6.3 Table 6-2: *Conversion of Field 10b*, as shown below, is to be used for conversion of NEW Field 10b to PRESENT Field 10b. Ensure a check is made for the presence of the information in both the “Field 10b” and “Item 18” NEW columns and convert it to the information in both the “Field 10b” and “Item 18” in PRESENT columns.

‘NEW’ Data Content		Conversion to ‘PRESENT’ Data Content	
Field 10b	Item 18	Field 10b	Item 18
N		N	
A		A	
C		C	
E		S	
H		S	
I		I	

‘NEW’ Data Content		Conversion to ‘PRESENT’ Data Content	
Field 10b	Item 18	Field 10b	Item 18
L		S D	
P		P	
S		S	
X		X	
B1			COM/B1
B2			COM/B2
U1			COM/U1
U2			COM/U2
V1			COM/V1
V2			COM/V2
D1		D	
G1		D	

**Table 6-2:** Conversion of Field 10b

Conversion of Item 18

6.4 Table 6-3: *Conversion of Item 18*, as shown below, is to be used for Conversion of NEW Item 18 to PRESENT Item 18.

‘NEW’ Data Content	Conversion to ‘PRESENT’ Data Content
Item 18	Item 18
STS/	STS/ copy text over <ul style="list-style-type: none"> <li>Except change “ATFMX” to “ATFMEXEMPTAPPROVED”</li> </ul>
SUR/	RMK/ SUR <text after SUR/>
DOF/	Maintain data in DOF/ if possible, otherwise remove. While not a documented PRESENT indicator, it is currently in wide use.
DAT/	COM/
DLE/	RMK/ DLE <text after DLE/>

<b>'NEW' Data Content</b>	<b>Conversion to 'PRESENT' Data Content</b>
<b>Item 18</b>	<b>Item 18</b>
ORGN/	RMK/ ORGN
TALT/	RMK/ TALT <text after TALT/>
PBN/	<b><i>See Table 5-1 above</i></b>
All other indicators copy over directly, with additions to NAV/, COM/, and DAT/ as specified in Tables 6-1 and 6-2 above.	

**Table 6-3:** Conversion of Item 18

## **7. Differentiating between NEW format and PRESENT format**

7.1 Although in most cases it will be evident when a FPL is in either the PRESENT or NEW format, situations can arise whereby the presentation of a particular FPL fully meets the parameters of both the PRESENT and NEW formats i.e. the same FPL is able to be interpreted using either of the PRESENT or NEW parameters. However, decoding the FPL using the PRESENT parameters could reach a different outcome than decoding the same FPL using the NEW format. For example, the letter "S" is used for standard equipment in Item 10 of both FPL formats, meaning V, F, O & L (i.e. VHF RTE, ADF, VOR and ILS) in PRESENT format but only V, O & L in NEW format (i.e. no ADF).

7.2 Accordingly, from the commencement of Phase 3 (1 July to 15 November 2012 - Airspace users testing and implementation) of the phased implementation strategy the following criteria should be used to determine if the filed FPL is in PRESENT or NEW format:

- a) If the FPL is filed prior to an ANSP accepting NEW, assume the Flight Plan is PRESENT.

7.3 Once an ANSP has announced it can accept NEW format, if any of the following is filed assume the filed Flight Plan is in PRESENT format:

- a) In Field 10a if the Qualifier J, M or D is filed.
- b) In Item 18 an entry used for STS/ is not in the allowed list for NEW.
- c) In Item 18 an entry used for PER/ is not a single letter in the allowed list.

7.4 Once an ANSP has announced it can accept NEW format, if any of the following is filed assume the filed Flight Plan is in NEW format:

- a) In Field 10a if any of the following qualifiers are filed: E1, E2 , E3 , J1, J2 , J3 , J4 , J5, J6, J7 , M1 , M2 , M3, P1, P2 , P3 , P4 , P5 , P6 , P7.

- b) In Field 10b if any of the following qualifiers are filed: E , H , L , B1 , B2 , U1 , U2 , V1 , V2 , O1 or G1.
- c) In Item 18 if PBN/ is filed.
- d) In Item 18 if SUR/ is filed.
- e) In Item 18 if DLE/ is filed.
- f) In Item 18 if TALT/ is filed.

7.5 If there are qualifiers from the PRESENT list and the NEW list in the same FPL, this indicates that the FPL is inconsistent and therefore should be rejected by automation to ‘error queue’ enable closer study. After November 15, 2012 all FPLs will be assumed to be in NEW format.

## **8. ATS Messages**

### Item 18 DOF

8.1 The FPL&AM/TF considers that ambiguity exists in relation to Item 18 and DOF which has implications on the composition of ATS messages as published in Amendment 1. The clarification provided for the requirement to include Item Type 18 in CHG, CNL, DLA, DEP and RQS messages states “*Field Type 18 with DOF specified is meant to uniquely identify the flight when the FPL is presented more than 24 hours in advance and there is no need to include all other Item 18 information*”.

8.2 The clarification also offers an interpretation of the Field Type 16 Previous Field/Next Field Table. This clearly states that only the DOF indicator is included in these messages and only if filed with the original message. If DOF is not filed in the original message then Item 18 is omitted. However, this interpretation contradicts the composition and examples for the CHG, CNL, DLA, DEP, RQP and RQS messages detailed in the Amendment which refer to Item 18 “*Other information (using more than one line if necessary)*”.

8.3 Accordingly, the following interpretation is applicable as an Asia/Pacific regional approach:

- a) Insert DOF/YYMMDD in Item 18 if that indicator has been previously specified;
- b) If the DOF/ indicator has not been previously specified insert zero (0) in Item 18

8.4 Example ATS messages based on this interpretation are shown below:

**Modification (CHG) Messages**

- (CHG-ABC123-NZAA2300-VTBS-DOF/091120-16/VTBD1151 VTBD)
  - (CHG-ABC123-NZAA2300-VTBS-0-16/VTBD1151 VTBD)
  - (CHG-ABC123-NZAA2300-VTBS-DOF/091120-13/NZAA0045-18/DOF/091121) \*
- \* **Note:** if changing DOF insert the complete content of Item 18 in Item 22

**Flight Plan Cancellation (CNL) Messages**

- (CNL-ABC123-NZAA2300-VTBS-DOF/091120)
- (CNL-ABC123-NZAA2300-VTBS-0)

**Delay (DLA) Messages**

- (DLA-ABC123-NZAA2345-VTBS-DOF/091120)
- (DLA-ABC123-NZAA2345-VTBS-0)

**Departure (DEP) Messages**

- (DEP-ABC123/A0254-NZAA2347-VTBS-DOF/091120)
- (DEP-ABC123/A0254-NZAA2347-VTBS-0)

**Request Flight Plan (RQP) Messages**

- (RQP-ABC123-NZAA2345-VTBS-DOF/091120)
- (RQP-ABC123-NZAA2345-VTBS-0)
- (RQP-ABC123-NZAA-VTBS-DOF/091120)
- (RQP-ABC123-NZAA-VTBS-0)

**Request Supplementary Flight Plan (RQS) Messages**

- (RQS-ABC123/A0254-NZAA2345-VTBS-DOF/091120)
- (RQS-ABC123/A0254-NZAA2345-VTBS-0)

**Arrival (ARR) Messages**

- (ARR-ABC123-NZAA-VTBS1315)
  - (ARR-ABC123-NZAA0145-VTBS1315) \*\*
- \*\* **Note:** include EOBT (Field Type 13b) if known

– END –

INFPL SG/1  
Appendix 5B to the Report on Agenda Item 5

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**MID REGION**  
**DRAFT STRATEGY FOR THE IMPLEMENTATION OF**  
**ICAO NEW FLIGHT PLAN FORMAT AND SUPPORTING ATS MESSAGES**

**Recognizing that:**

- 1) Dynamic information management will assemble the best possible integrated picture of the historical, real-time and planned or foreseen future state of the ATM situation and provide the basis for improved decision making by all ATM community members, further more for the ATM system to operate at its full potential, pertinent information will be available when and where required;
- 2) The *Global Air Traffic Management Operational Concept* (Doc 9854) requires information management arrangements that provide accredited, quality-assured and timely information to be used to support ATM operations and will use globally harmonized information attributes;
- 3) ATM Requirement 87 in the *Manual of Air Traffic Management System Requirements* (Doc 9882) provides that 4-D trajectories be used for traffic synchronization applications to meet ATM system performance targets, explaining that automation in the air and on the ground will be used fully in order to create an efficient and safe flow of traffic for all phases of flight;
- 4) The amended ICAO Flight Plan and associated ATS Message formats contained in Amendment 1 to the Fifteenth Edition of the PANS ATM (Doc 4444, applicable 15 November 2012) have been formulated to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management systems, while taking into account compatibility with existing systems, human factors, training, and cost.
- 5) The ICAO new flight plan Format introduces considerable changes related, inter-alia, to Reduced Vertical Separation Minimum (RVSM), Performance Based Navigation (PBN), Required Communication Performance (RCP), Automatic Dependent Surveillance - Broadcast (ADS-B) and Global Navigation Satellite Systems (GNSS), while maintaining a high degree of commonality with the existing flight plan format
- 6) The complexities inherent in automated computer systems preclude the adoption of a single regional transition date and transitions to the new flight plan provisions will therefore occur Throughout the declared transition period. Accordingly, pursuit/adoption of a single 'global' implementation date is also not viable.
- 7) The risk of not updating all MID States automated systems as planned and before the implementation date of 15 November 2012
- 8) The risk of all users simultaneously commencing "NEW" on the common implementation date without proper testing with the States.

**The MID Region implementation of Amendment 1 to the PANS-ATM shall:**

- 1) Ensure that all States and airspace users implement the full provisions of Amendment 1 to PANS-ATM 15th Edition with applicability date of 15 November 2012, not just selected aspects of the provisions;
- 2) Acknowledge that States not implementing the full provisions of Amendment 1 are obligated to publish the non compliance in State AIP as a 'significant difference' well in advance of the 15 November 2012 applicability date and will be included on the MIDANPIRG List of Deficiencies in the CNS/ATM Fields; and
- 3) Ensure that, from 15 November 2012, all States and airspace users accept and disseminate 'NEW' flight plan and associated ATS message formats only and capabilities for 'PRESENT' flight plan provisions are discontinued.

**The MID Regional transition to the PANS-ATM Amendment 1 provisions shall:**

- 1) Comply with the guidance provided by ICAO as described in the ICAO guidance material in State Letter AN 13/2.1-09/9, dated 6 February 2009; titled "Guidance for implementation of flight plan information to support Amendment 1 of the Procedures for Air Navigation Services — Air Traffic Management, Fifteenth Edition (PANS-ATM, DOC 4444)"
- 2) Ensure that the INFPL SG undertakes coordination to facilitate harmonization with implementations in neighboring regions;
- 3) Eliminate or minimize State specific constraints and, if constraints are identified as necessary, implement such constraints on a regional or sub regional basis in preference to an individual State basis;
- 4) Declare a preparation transition period from 1 January 2012 until 14 November 2012, comprising;
  - 1 January to 31 March 2012 - ANSPs software delivery and internal testing,
  - 1 April to 30 June 2012 – ANSPs external testing and
  - 1 July to 14 November 2012 – airspace users testing
- 5) Encourage ANSPs and airspace users to coordinate appropriate implementation methodologies in order to ensure that migration to 'NEW' could be done without problems on the agreed and declared implementation date;
- 6) Encourage States and users to immediately commence preparations to implement Amendment 1 provisions preferably not later than declared preparation period and report progress to the INFPL SG periodic meetings;

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