



International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
**First Meeting of the Communications, Navigation and Surveillance / Air
Traffic Management Subgroup (CNS/ATM/SG/1)**
(Lima, Peru, 15 to 19 March 2010)

Agenda Item 4 : **Review of the of the pending matters of ATM/CNS/SG, ATM and CNS
Committees with their Task Forces aimed at considering this matters in
the working programme of the CNS/ATM Subgroup**

**Proposed Inter-Regional Strategy for Implementation of Amendment 1 to PANS-ATM,
15th Edition**

(Presented by the United States of America)

SUMMARY	
The Federal Aviation Administration (FAA) is advancing a Phased Transition Approach for global inter-regional use during implementation of Amendment 1 to the <i>Procedures for Air Navigation Services — Air Traffic Management, Fifteenth Edition</i> (PANS-ATM, DOC 4444). A harmonized approach, consistent with ongoing ICAO regional efforts, would ensure compatibility and continuity between Air Navigation Service Providers (ANSP) and airspace user filing systems during the transition period.	
ICAO Strategic Objectives:	<i>A - Safety</i> <i>D - Efficiency</i>

1. **Introduction**

1.1 In June 2008, the International Civil Aviation Organization (ICAO) issued Amendment 1 to the PANS-ATM, DOC 4444, to be implemented by 15 November 2012. The changes in Amendment 1 affect the ICAO model flight plan form, related Air Traffic Service (ATS) messages and procedures.

1.2 A number of the ICAO regions have established task forces (TF) to develop transition plans in accordance with guidance issued by ICAO in 2009. Optimally, TF plans and initiatives should be coordinated widely among states and ANSPs so that dates and procedures will be harmonized. These efforts will substantially ease the transition for global users of aviation. A summary of conclusions and concerns from those TF meetings is presented as Appendix 1.

1.3 The Asia/Pacific ICAO Flight Plan and ATS Messages Implementation Task Force (FPL&AM/TF) has adopted a Phased Transition Approach for the implementation of Amendment 1 to the PANS-ATM, DOC 4444, 15th Edition. The approach defines periods for software delivery, internal ANSP testing, testing between ANSPs and external user testing.

1.4 FAA is hopeful that GREPECAS will adopt a transition strategy that harmonizes with the Phased Transition Approach and dates so that multiple ICAO regions and their global users can plan toward the same dates.

2. **Terminology**

2.1 The following terms are used as defined below in this paper:

2.1.1 Applicability Date – November 15, 2012; effective date of Amendment 1 to DOC 4444, 15th Edition.

2.1.2 PRESENT – ICAO flight planning and ATS message formats currently in use as specified in DOC 4444, 15th Edition.

2.1.3 NEW – ICAO flight planning and ATS message formats specified in Amendment 1 to DOC 4444, 15th Edition.

3. Background

3.1 During FPL&AM/TF/2, the International Air Transport Association (IATA) reported that, against the present background of global uncertainty about the level of readiness, IATA's position was that all airlines would transition to NEW on the applicability date of 15 November 2012.

3.2 The meeting expressed strong concerns at the prospect that a large number of operators would commence filing NEW on a single day, thereby creating significant risk to global aviation. FPL&AM/TF/2 felt that targeting a fixed transition date of 15 November 2012, globally, would not allow for adequate testing of interfaces between airline and ANSP systems, and would represent a critical risk to transition success.

3.3 An approach was developed which provided for the early transition of regional ANSPs, followed by a period for airspace users and third party providers to test and implement changes to their flight planning systems. This would enable ANSPs to test with each other before interfacing with filer systems, and would enable users to test and implement their changes with stable ANSP systems. This approach would also mitigate many of the risks associated with a single-day, global transition to NEW without the opportunity for testing between interfaced systems.

3.4 FPL&AM/TF/2 adopted a phased transition strategy which defines a transition period from 1 January 2012 through 15 November 2012 as follows:

- **Phase 1 (1 January to 31 March 2012)** - ANSPs software delivery and internal testing.
 - During this period, ANSP system software will be updated and tested to support NEW message formats, while continuing support for PRESENT message formats.
- **Phase 2 (1 April to 30 June 2012)** - ANSPs external testing and implementation.
 - During this period, systems will be tested with other interfaced ANSPs to verify interfaces, functionality and conversion tables (NEW to PRESENT).
- **Phase 3 (1 July to 15 November 2012)** - Airspace users testing and implementation.
 - During this period, airspace users and third party provider systems will be tested with ANSP systems and user filing of NEW begins.

3.5 In recognition of the complexity and number of automated systems involved, FAA plans to deliver testing software in multiple systems in advance of Phase 1. Additionally, some user testing will also occur prior to Phase 3. This accelerated FAA schedule does not conflict with the approach adopted by the FPL&AM/TF, but rather allows early compliance with the phases specified.

4. **Discussion**

4.1 The timely development and publication of an inter-regional transition strategy is critical to reduce uncertainties and inconsistencies between regions and ANSPs that might negatively affect the ability of airspace users to plan, test and implement necessary system changes. An inter-regional transition strategy would provide a stable, predictable framework upon which operators could base their software changes, schedules, operational procedures and training during the transition to NEW formats and procedures. This is particularly important for operators that routinely file lengthy routes that penetrate multiple ICAO regions.

4.2 States and ANSPs should strive to support both PRESENT and NEW message formats for some minimum transition period prior to the applicability date to allow for inter-facility testing and testing with operators. This procedure would mitigate risks for airspace users and adjacent ANSPs by providing the opportunity to submit and analyze flight plans and associated messages, while providing the ability to return to PRESENT formats and procedures quickly and with minimum operational impact.

4.3 Airspace users and flight plan filers should be encouraged to test with ANSPs and to begin filing NEW format at the earliest opportunity. A phased transition would enable issues of interpretation and errors in formatting to be identified and addressed quickly on an individual basis rather than the single implementation date scenario where multiple systems might be impacted simultaneously. Users should be persuaded to adopt a diverse spread of implementation dates, as this would mitigate the risks to ANSP systems arising from the proposed adoption of a single cutover date.

5. **Conclusion**

5.1 The United States, working with other States and ANSPs in various ICAO regional task forces, seeks to harmonize a Phased Transition Approach as the basis of an inter-regional transition strategy for global use. This approach is presented for consideration of adoption by GREPECAS in order to substantially ease the implementation of Amendment 1 to PANS-ATM, DOC 4444, 15th Edition, for States, ANSPs, and global users of aviation.

6. **Actions**

6.1 Members are invited to:

- a) Consider the benefits of an Inter-Regional Transition Strategy consistent with ANSPs around the globe; and
- b) Adopt the Phased Transition Strategy presented in this paper.

Appendix 1

Summary of Regional Task Force Meetings

1. Asia/Pacific ICAO Flight Plan and ATS Messages Implementation Task Force (FPL&AM/TF)

1.1 **Transition Strategy:** The International Air Transport Association (IATA) has concerns regarding global uncertainty over the level of transition readiness. Consequently, their position was that all airlines would transition to NEW on the applicability date of 15 November 2012.

1.1.1 The meeting expressed strong concerns at the prospect that a large number of operators would commence filing NEW on a single day, thereby creating significant risk to global aviation. FPL&AM/TF/2 felt targeting a fixed transition date of 15 November 2012, would not allow for adequate testing of interfaces between airline and ANSP systems, and would represent a critical risk to transition success.

1.1.2 An alternative approach was developed. This approach would provide for early transition of regional ANSPs, followed by a time period for airspace users and third party providers to test and implement changes to their flight planning systems. This enables ANSPs to test with each other before interfacing with filer systems, and allow users to test and implement their changes with stable ANSP systems. This approach mitigates many of risks associated with a single-day, global transition to NEW without opportunity for testing between interfaced systems.

1.1.3 FPL&AM/TF/2 adopted a Phased Transition Strategy which defines a transition period from 1 January 2012 through 15 November 2012 as follows:

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

1.2 **Coding Guidance:** FPL&AM/TF developed software coding guidance for use by Asia/Pacific (APAC) States and ANSPs to code changes required to implement Amendment 1. Guidance includes validity checking of Filed Flight Plans (FPL) and ATS service messages to ensure they are checked, scrutinized and passed intact by each ANSP along the route of flight. The current draft version of *Asia/Pacific Guidance Material for the Implementation of Amendment 1 to the 15th Edition of the Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444)* is attached as Appendix 2.

1.2.1 Guidance includes a **Conversion Table for NEW to PRESENT** based on iterative work from the APAC and EUR task forces, and bi-lateral discussions between the United States, and Canada and Mexico, respectively. The updated table supports the goal to develop a common translation approach that is consistent and acceptable to all ANSPs, and is presented in Section 6 of Appendix 2.

1.2.2 An FPL Parameters Working Group was established to develop guidance on FPL field size and the ordering of entries in various fields for incorporation into the APAC Guidance Material.

1.3 **DOF/ and 120 Hour Advance Filing:** FPL&AM/TF/2 adopted “a regional approach that does not require processing of flight plans more than 24 hours prior to EOBT during the declared transition period...” to mitigate transition issues associated with DOF/ and reduce superfluous modification messages. The approach was based on the potential impact to neighboring ANSPs in the event an ‘island’ ANSP accepts 120 hour advanced filing, particularly in relation to AIDC (ATS Interfacility Data Configuration).

1.3.1 The use of DOF/ and 120 hour advance filing will be reconsidered by States after the November 2012 implementation for incorporation into new systems as they are procured and commissioned.

1.4 **Seminar:** A seminar on implementation of the NEW ICAO flight plan was presented on the day preceding FPL&AM/TF2. Attendees were given copies of the presentation and tools developed by States and ANSPs to assist with analysis of the impacts of Amendment 1 changes.

1.5 **Reports:** FPL&AM/TF meeting reports, papers and guidance, including materials presented at the seminar, can be found at the following URLs:

FPL&AM/TF/1: http://www.bangkok.icao.int/meetings/2009/fpl_amtf1/index.html.

FPL&AM/TF/2: http://www.bangkok.icao.int/meetings/2009/fpl_amtf2/index.html.

2. EUROCONTROL 2012 Task force meeting (2012 FPL TF)

2.1 The EUROCONTROL 2012 FPL TF/1 met in September 2009 in Brussels, Belgium; 2012 FPL TF/2 met in February 2010. A summary of the conclusions and concerns follows.

2.2 **Transition Plans:** Most attendees indicated they expect to be ready by the Applicability Date; however, some do not wish to make changes for 2012 FPL as they plan to update their flight data processing systems in the 2013/2014 timeframe.

2.3 **Translation Table:** Due to circumstances in 2.2 above, EUROCONTROL will continue to support the translation function beyond the Applicability Date. 2012 FPL TF/2 presented additional modifications to the translation table located in Appendix 2. Concurrence on these changes is pending.

2.4 **DOF/ and 120 Hour Advanced filing:** Due to complications of FPL data retrieval in the event of a dataset update or system change, some European ANSPs do not want to receive FPLs more than 24 hours in advance; others already allow it.

3. Bi-lateral Task Force Between the United States of America (FAA) and NAV CANADA

3.1 An initial meeting between FAA and NAV CANADA was held in September 2009 in Ottawa, Canada. Monthly TF telecons began in January. The TF is working toward a harmonized strategy for implementation and translation based on the FPL&AM/TF Phased Transition Approach and dates. The TF continues to review and discuss the work of other TF meetings.

4. Bi-lateral Task Force Between the United States of America (FAA) and SENEAM (Mexico)

4.1 An initial meeting between FAA and SENEAM was held in October 2009 in Mexico City, Mexico. The FAA briefed SENEAM on the outcomes of the EUR and APAC TF meetings and draft U.S. implementation plans. Bi-monthly TF telecons will begin in March 2010 to build a harmonized strategy for implementation. The FAA plans to present the FPL&AM/TF Phased Transition Approach, which includes dates and translation table to SENEAM for consideration and adoption.

5. Other Regional Activities

5.1 The FAA prepared an Information Paper on TF activities which was submitted to the First Meeting of the ICAO New Flight Plan Format Study Group (INFPL SG/1) in Cairo, Egypt, in February 2010.

5.2 The FAA plans to present an updated Information Paper to the Third Meeting of the Trans-Regional Airspace and Supporting ATM Systems Steering Group (TRASAS/3) in Paris, France, provided it is rescheduled during 2010.

6. Other FAA Activities

6.1 The FAA has established a team, which meets monthly, to plan all aspects of the FAA transition to NEW. Implementation directly affects four (4) FAA-owned systems and several FAA-contracted systems that receive FPLs.

6.2 The FAA provides guidance to filers online at the following URL: www.faa.gov/ato?k=fpl. The website includes information on the FAA implementation of Amendment 1 (“General Information” then “ICAO 2012”) and on monthly telecons which discuss flight plan filing issues with the user community (“General Information” then “Flight Plan Filer (FPF) Telecons”).

6.3 The FAA has developed briefing materials that provide an overview of ICAO guidance and the changes introduced by Amendment 1. These materials were distributed at the Seminar conducted in conjunction with FPL&AM TF/2 and are available through the link provided in Section 3.6, above, or upon request to diane.bodenhamer@faa.gov.

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Appendix 2 (Available in English only) / Apéndice 2 (Disponibile únicamente en inglés)

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA AND PACIFIC OFFICE**



DRAFT
**Asia/Pacific Guidance Material for the
Implementation of Amendment 1 to the 15th Edition of the
Procedures for Air Navigation Services – Air Traffic Management
(PANS-ATM, Doc 4444)**

Draft Version 0.1 – 19 November 2009

ISSUED BY THE ICAO ASIA/PACIFIC REGIONAL OFFICE, BANGKOK

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[NOTE: Appendices A & B to this document are not included in the CNS WP]

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

1. Background

1.1 In order to ensure a harmonized implementation of the provisions contained in Amendment 1 to the 15th 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 15th 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, 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).

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 identify 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 equipment, 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 neighboring 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 “P” must be included in Field 10a; and
- If C1, C4, D1, D4, O1 or O4 are filed, then a “D” and an “T” must be included in Field 10a (i.e., “D P” 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
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

Indicator	Contents
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"> • <i>Category A:</i> less than 169 km/h (91 kt) indicated airspeed (IAS) • <i>Category B:</i> 169 km/h (91 kt) or more but less than 224 km/h (121 kt) IAS • <i>Category C:</i> 224 km/h (121 kt) or more but less than 261 km/h (141 kt) IAS • <i>Category D:</i> 261 km/h (141 kt) or more but less than 307 km/h (166 kt) IAS • <i>Category E:</i> 307 km/h (166 kt) or more but less than 391 km/h (211 kt) IAS • <i>Category H:</i> 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 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. Remove 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
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

6.2 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	
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

6.3 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"> Except change “ATFMX” to “ATFMEXEMPTAPPROVED”
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/>
ORGN/	RMK/ ORGN
TALT/	RMK/ TALT <text after TALT/>
PBN/	<i>See Table 5-1 above</i>

'NEW' Data Content	Conversion to 'PRESENT' Data Content
Item 18	Item 18
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 RTF, 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 –