

INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASIA AND PACIFIC OFFICE



**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)**

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ISSUED BY THE ICAO ASIA/PACIFIC REGIONAL OFFICE, BANGKOK

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**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 harmonised 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).

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
 - o 1 January to 31 March 2012,
- **Phase 2** – ANSPs external testing and implementation
 - o 1 April to 30 June 2012, and
- **Phase 3** – Airspace users testing and implementation.
 - o 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, AIP supplement and/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.

4.7 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 was 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...*”.

4.8 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) DOF/ is not necessary in AIDC messages since flight data is generally first coordinated after departure. The inclusion of DOF/ in AIDC messages is subject to bilateral agreement between States.

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 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., “OD” or “SD” must appear in 10a);
- If B1, B5, or C1 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).

Consistency between Item 10a and STS/ in Item 18

5.6 Amendment 1 formalised flight plan filing of the mutually exclusive entries ‘W’ (in Item 10a) and “NONRVSM” (in Item 18 STS/). The use of NONRVSM in STS is to signify intent to operate as a Non-RVSM flight in RVSM airspace. To avoid contradictory RVSM indications and possible incorrect application of separation standards based on this, a consistency check should be coded to evaluate NEW FPL related messages per the following:

- If STS/NONRVSM is filed in Item 18 then ‘W’ should not exist in Item 10a.

Item 10b omission in Amendment 1

5.7 Amendment 1 omitted the Item 10b ‘N’ designator (i.e. no surveillance equipment for the route to be flown) in Appendix 3 whilst in Appendix 2 this was retained as a valid designator. This was clarified as being an inadvertent omission and consequently ‘N’ remains a valid character for use in Item 10b.

Item 10b advice to filers

5.8 In relation to the use of surveillance equipment and capabilities, Amendment 1 identifies alphanumeric entries in Item 10b. States should consider including in their flight planning manuals and/or the flight planning section of their AIP, the following guidelines:

- a) ‘N’ or
- b) SSR Modes A and C and S
 - Maximum of one entry is expected from either ‘A’ or ‘C’ or ‘E’ or ‘H’ or ‘I’ or ‘L’ or ‘P’ or ‘S’ or ‘X’ and/or
- c) ADS-B
 - Maximum of one entry is expected from either B1 or B2 and/or
 - Maximum of one entry is expected from either U1 or U2 and/or
 - Maximum of one entry is expected from either V1 or V2 and/or
- d) ADS-C
 - One or both of the entries ‘D1’ ‘G1’

Validity Checking & Processing of Item 18 Indicators

5.9 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.
- 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. If duplicate indicators are detected, their contents will be concatenated within a single occurrence of the indicator but with a space inserted between the two data streams.

5.10 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) 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 (ie. 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: Category A: less than 169 km/h (91 kt) indicated airspeed (IAS)

Indicator	Contents
	• <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 The route details to the revised destination aerodrome, followed by the ICAO four-letter location indicator of the aerodrome. Examples: RIF/DTA HEC KLAX RIF/ESP G94 CLA YPPH
RMK/	Free text field

Table 5-1: Item 18 Indicator Validity Check

Allowable Indicators and Mandated Order in Item 18

5.11 Systems should accept indicators in Item 18 which are defined in the PANS-ATM. Consideration should also be given to system acceptance/handling of legacy indicators, not included in PANS-ATM, but approved by ICAO for continued use. It is recommended that APAC states either automatically:

- remove on reception any non-standard indicators not approved for use in Asia/Pacific without rejecting the original message; or
- automatically re-order these non-standard indicators on reception without rejecting the original message by inserting the non standard indicator and associated text as RMK/ and with the "/" removed between the non standard indicator and associated text.

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

5.12 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:

- 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.

Use of the DLE/ indicator in Item 18.

5.13 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.

Special handling (STS) indicator

5.14 MARSA - It is recommended that state guidance be provided to filers (AIP) to ensure consistent application of MARSA as follows:

- MARSA when submitted in the flight plan is an indication of an intention to declare MARSA, either:
 - o for the flight duration (requires more than one aircraft in Item 9 of the flight plan); or
 - o from a nominated point in the flight plan, to be stated in Item 18 RMK/ along with identification(s) of aircraft planned to participate in MARSA operations (e.g. RMK/MARSA COLT WIZZA240036).

5.15 ATFMX – States should consider including in their flight planning manuals and/or AIP flight planning section instructions to filers to, when intending to file ATFMX in STS/ for flights which cross more than one FIR, include in RMK/ the FIR (s) for which this exemption applies (e.g. RMK/ATFMX NZZO).

Use of ORGN

5.16 ORGN – It is recommended that ANSPs published specific guidance to filers for this Indicator. Other parts of the world have set character limits for this Indicator.

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.

6.2 Several ANSPs have indicated an intention to maintain their systems in PRESENT format post November 15th 2012 and to utilise retrofitted flight plan converters to accept NEW and convert NEW flight plans for their systems. Whilst not desirable, it is appreciated that for states using legacy systems with short term plans for replacement, this represents a viable option, however it must be understood this does not constitute compliance with the spirit of Amendment 1.

6.3 Amendment 1 mandates the order of Item 18 indicators (see 5.9 above). In order to reduce the degree of software development required it is acceptable for the order of both PRESENT and NEW format flight plan messages to be as per that defined in Amendment 1 for NEW format messages.

6.4 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. During the conversion process, duplication of entries should be avoided at all times. For example, if NEW flight plan contains PBN/B2B3 then the desired resulting Field 18 entry in the corresponding PRESENT plan should be NAV/RNAV5 B2 B3 and not NAV/RNAV5 B2 RNAV5 B3 as might be interpreted from the translation table. Conversion from PRESENT to NEW was never intended, nor recommended by ICAO. Up converting is considered high risk and should not be used in 'live' system operations.

Conversion of Field 10a

6.5 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 "Item 18" NEW columns and convert it to the information in both the "Field 10a" and "Item 18" in PRESENT columns. If, when per the table text is to be inserted in Field 10 or Field 18, the text is already present, then it should not be inserted again. When inserting text in Field 18, if any information is already present due to having been filed or having been inserted by an earlier translation insertion, the text should be appended to the end of the existing text preceded by a space. For example, if PBN/B2 NAV/TCAS is filed in a NEW flight plan, then the resulting NAV/ entry in the corresponding PRESENT flight plan will be NAV/TCAS RNAV5 B2.

'NEW' Data Content		Conversion to 'PRESENT' Data Content	
Field 10a	Item 18	Field 10a	Item 18
N		N	
S		S	(refer para 5.4)
S F		SF	(refer para 5.4)
A		Z	NAV/GBAS
B		Z	NAV/LPV
C		C	
D		D	
E1		Z	COM/FMC WPR ACARS E1
E2		Z	COM/DFIS ACARS E2
E3		Z	COM/PDC ACARS E3
F		F	
G		G	
H		H	
I		I	

‘NEW’ Data Content		Conversion to ‘PRESENT’ Data Content	
Field 10a	Item 18	Field 10a	Item 18
J1		J	DAT/V COM/J1
J2		J	DAT/H COM/J2
J3		J	DAT/V COM/J3
J4		J	DAT/V COM/J4
J5		J	DAT/S COM/J5
J6		J	DAT/S COM/J6
J7		J	DAT/S COM/J7
K		K	
L		L	
M1		Z	COM/INMARSAT M1
M2		Z	COM/MTSAT M2
M3		Z	COM/IRIDIUM M3
O		O	
P1-P9		Reserved- should not be present. Remove items if present (i.e. do not make information part of the PRESENT format plan).	
R	PBN/A1	RZ	NAV/RNAV10 RNP10 A1
R	PBN/B1	RZ	NAV/RNAV5 B1
R	PBN/B2	RZ	NAV/RNAV5 B2
R	PBN/B3	RZ	NAV/RNAV5 B3
R	PBN/B4	RZ	NAV/RNAV5 B4
R	PBN/B5	RZ	NAV/RNAV5 B5
R	PBN/B6	RZ	NAV/RNAV5 B6
R	PBN/C1	RZ	NAV/RNAV2 C1
R	PBN/C2	RZ	NAV/RNAV2 C2
R	PBN/C3	RZ	NAV/RNAV2 C3

‘NEW’ Data Content		Conversion to ‘PRESENT’ Data Content	
Field 10a	Item 18	Field 10a	Item 18
R	PBN/C4	RZ	NAV/RNAV2 C4
R	PBN/D1	PRZ	NAV/RNAV1 D1
R	PBN/D2	PRZ	NAV/RNAV1 D2
R	PBN/D3	PRZ	NAV/RNAV1 D3
R	PBN/D4	PRZ	NAV/RNAV1 D4
R	PBN/L1	RZ	NAV/RNP4 L1
R	PBN/O1	PRZ	NAV/RNP1O1
R	PBN/O2	PRZ	NAV/RNP1 O2
R	PBN/O3	PRZ	NAV/RNP1 O3
R	PBN/O4	PRZ	NAV/RNP1 O4
R	PBN/S1	RZ	NAV/RNP APCH S1
R	PBN/S2	RZ	NAV/RNP APCH BARO VNAV S2
R	PBN/T1	RZ	NAV/RNP AR APCH RF T1
R	PBN/T2	RZ	NAV/RNP AR APCH T2
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

6.6 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		SD	COM/E
H		S	COM/H
I		I	
L		S D	COM/L
P		P	
S		S	
X		X	
B1		D	COM/B1
B2		D	COM/B2
U1		D	COM/U1
U2		D	COM/U2
V1		D	COM/V1
V2		D	COM/V2
D1		D	COM/D1
G1		D	COM/G1

Table 6-2: Conversion of Field 10b

Conversion of Item 18

6.7 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 Except change "ATFMX" to "ATFMEXEMPTAPPROVED"
SUR/	RMK/ SUR <textafter 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 <text after ORGN/>
TALT/	RMK/ TALT <text after TALT/>
PBN/	See Table 5-1 above
All other indicators copy over directly, with additions to NAV/, COM/, and DAT/ as specified in Tables 6-1 and 6-2 above. <i>DAT conversion should therefore occur in two steps:</i> - Any existing DAT/ entries in the NEW format flight plan (submitted for conversion) are transferred to the COM/ indicator in Field 18 of the converted PRESENT flight plan (or message) - prior to conversion of the 10a equipment qualifiers; then - Any equipment qualifiers in Field 10a requiring conversion to DAT/ in accordance with the conversion table 6.1 (i.e. J1-J7) are to be entered into the DAT/ indicator of the converted PRESENT flight plan (or message) in accordance with table 6.1. <i>Note; After conversion is possible that there will be duplicate entries in DAT/ and COM/.</i>	

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 E, J, M or P is filed without an associated numeric;
- b) In Field 10b if the Qualifier D is filed without an associated numeric;
- c) In Item 18 an entry used for STS/ is not in the allowed list for NEW; and
- d) In Item 18 an entry used for PER/ is more than 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: A, B, E1, E2, E3, J1, J2, J3, J4, J5, J6, J7, M1, M2, M3, P1, P2, P3, P4, P5, P6, P7, P8, P9.
- b) In Field 10b if any of the following qualifiers are filed: E, H, L, B1, B2, U1, U2, V1, V2, D1 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 is a unique qualifier from the PRESENT list and another unique qualifier from the NEW list co-existing in the same FPL, this indicates that the FPL is inconsistent and therefore should be rejected by automation (e.g. to an 'error queue'). 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 Field Type 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 Field 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"*. Consequently, states should be sending only the DOF element from field 18 or '0' (when no DOF is contained within the flight plan) in these message types. It is important to note that when the DOF/ element is modified by Field Type 22 in a CHG message, the complete Item 18 data must always be provided. If it is not, any elements omitted will be considered as modifications and they will be removed from the Item 18 content

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 Field Type 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 the last notified DOF/YYMMDD in Field Type 18 if that indicator has been previously specified; and
- b) If the DOF/ indicator has not been previously specified insert zero (0) in Field Type 18.

8.4 To avoid possible confusion of DOF caused by subsequent DLA messages, a CHG message (instead of a DLA message) should always be used if a flight is delayed over 0000 UTC, indicating in Field 22 the amendments to both Field 13b and Field 18 i.e. both the EOBT and DOF; regardless of the existence of DOF in Field 18 of previously transmitted ATS messages. Similarly, a CHG message with a new EOBT in Field 13b and new DOF in Field 18 should always be used if the flight EOBT is advanced over 0000 UTC.

8.5 If states do elect to use a DLA message for this purpose (per 8.7 example 2 below), their automated systems should have the capacity to add a DOF in cases where one did not previously exist, or to add a day to the DOF where one did exist within Item 18 of the flight plan. Likewise, recipients of DLA messages across 0000 UTC should modify DOF in their systems in the same manner.

8.6 Example ATS messages based on these interpretations are shown below:

Reference FPL Messages

(FPL-ABC123-IS
-B77W/H-SDE1GIRWZ/SB1D1
-NZAA2300
-M083F360 DCT PPTI A464 TN J251 DN B583 BRU M768 TSN R468
GOMES DCT DANNY1B
-VTBS1130
-PBN/A1B1C1D1L1 DOF/091120)

(FPL-ABC456-IS
-B77W/H-SDE1GIRWZ/SB1D1
-NZAA2300
-M083F360 DCT PPTI A464 TN J251 DN B583 BRU M768 TSN R468
GOMES DCT DANNY1B
-VTBS1130
-PBN/A1B1C1D1L1)

Modification (CHG) Messages

- o (CHG-ABC123-NZAA2300-VTBS-DOF/091120-16/VTBS1130 VTBD)
- o (CHG-ABC456-NZAA2300-VTBS-0-16/VTBS1130 VTBD)
- o Delaying the flight until the next day

(CHG-ABC123-NZAA2300-VTBS-DOF/091120-13/NZAA0045-18/PBN/A1B1C1D1L1 DOF/091121)

(CHG-ABC456-NZAA2300-VTBS-0-13/NZAA0045-18/PBN/A1B1C1D1L1
DOF/091121)

Note:

1. When changing DOF insert the complete content of Item 18 in Field 22
2. CHG message (instead of DLA message) including the new EOBT and the new date of flight should be used if a flight is delayed over 0000 UTC.

Flight Plan Cancellation (CNL) Messages

- o (CNL-ABC123-NZAA2300-VTBS-DOF/091120)
- o (CNL-ABC456-NZAA2300-VTBS-0)

Delay (DLA) Messages

- o (DLA-ABC123-NZAA2345-VTBS-DOF/091120)
- o (DLA-ABC456-NZAA2345-VTBS-0)

Departure (DEP) Messages

- o (DEP-ABC123/A0254-NZAA2347-VTBS-DOF/091120)
- o (DEP-ABC456/A0254-NZAA2347-VTBS-0)

Request Flight Plan (RQP) Messages

- o (RQP-ABC123-NZAA2345-VTBS-DOF/091120)
- o (RQP-ABC456-NZAA2345-VTBS-0)
- o (RQP-ABC123-NZAA-VTBS-DOF/091120)
- o (RQP-ABC456-NZAA-VTBS-0)

Request Supplementary Flight Plan (RQS) Messages

- o (RQS-ABC123/A0254-NZAA2345-VTBS-DOF/091120)
- o (RQS-ABC456/A0254-NZAA2345-VTBS-0)

Arrival (ARR) Messages

- o (ARR-ABC123-NZAA-VTBS1115)
- o (ARR-ABC456-NZAA2345-VTBS1115)

8.6 It is now mandatory to insert in FPL Item 18 the date of flight departure if the flight plan is filed more than 24 hours in advance of the estimated off-block time of the flight. This also impacts on associated flight plan update messages (ARR, CHG, CNL, DLA, DEP).

8.7 The DOF provided in Field 18 of the update messages must always refer to the last notified Off Block Date (EOBD). This is very important and proper application of the rule may appear to result in information being presented in a counter-intuitive way as shown in the following examples:

➤ Field 18 in the original Flight Plan: STS/HOSP PBN/B3 DOF/100304

➤ Field 13b in the original Flight Plan: 2230

Example 1: CHG message – Preferred Method

It is recommended to use a CHG message if a flight is delayed over 0000 UTC, indicating in Field 22 the amendments to both Field 13b and 18, the EOBT and the DOF.

(CHG-ABC123-NZAA2230-VTBS-DOF/100304-13/NZAA0200-18/STS/HOSP PBN/B3 DOF/100305)

Note that the first DOF reference in the CHG message is 04 March, which was the previous notified date; however the modification in Field 22 shows the correct, new Date of Flight which is 05 March.

If the flight is further delayed until 0400 on 05 March, the corresponding DLA message will look like this:

(DLA-ABC123-NZAA0400-VTBS-DOF/100305)

The DLA message refers to the DOF as 05 March since this is the EOBD last communicated by the previous CHG message.

Example 2: DLA message

A DLA message could also be used to communicate a delay over 0000 UTC but is ambiguous and subject to confusion. It is therefore strongly recommended that a CHG message is used to communicate a delay over 0000 UTC as per Example 1.

The new EOBT/EOBD advised in a DLA message must always be understood as a date/time that is later than previously notified.

(DLA-ABC123-NZAA0200-VTBS-DOF/100304)

Note that the DOF reference in the DLA message is 04 March which was the previous notified date; however it is implicit that the new EOBD is 05 March.

If the flight is further delayed to 0400 on 05 March; the corresponding DLA message will look like this:

(DLA-ABC123-NZAA0400-VTBS-DOF/100305)

The DLA message refers to the DOF as 05 March since this is the EOBD last communicated by the previous DLA message.

8.8 The use of the DLA message to communicate a delay over 0000 UTC (Example 2) is deceptive in that the new EOBD is not explicitly stated and the DOF in Field Type 18 does not correlate with the new EOBT.

8.9 Where multiple flight plans have been filed (same Aircraft Identification, Departure, Destination but different DOF) it is recommended that CHG messages, including DOF, are used to advise delays. This will enable automated systems to clearly identify which flight is being referenced.

9. Cutover to NEW format

9.1 States will be asked by ICAO to provide their exact cutover timing for promulgation on the FITS website. States should consider planning this timing in conjunction with neighbouring states.

9.2 States are urged to commence operational acceptance and processing of PRESENT and NEW format FPL and ATS messages as early as possible, and in any event no later than 0000 UTC on 12 November 2012.

Appendix

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.)

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, adopted by APANPIRG/20, September 2010)