



Extracted from the Report of the First Meeting of the Asia/Pacific ICAO Flight Plan & ATS messages Implementation Task Force (FPL&AM TF/1, 17 – 20 March, 2009)

Amendment 1, 15th Edition PANS-ATM (Doc 4444)

4.2.1 Recognizing the need to ensure availability of appropriate flight plan data that might be required by the ATM community to support collaborative decision making and the realization of the Global ATM Operational Concept (Doc 9854), the ICAO Flight Plan Study Group (FPLSG) was established during 2004.

4.3 Amendment 1 to the PANS-ATM, which stems from the work of the FPLSG, was approved and circulated to States and organizations by way of ICAO State Letter Ref: AN 13/2.1-08/50 dated 25 June 2008. The nature and scope of the amendment is to update the ICAO model flight plan form in order to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management (ATM) systems, while taking into account compatibility with existing systems, human factors, training, cost and transition aspects.

4.4 The meeting undertook a comprehensive review of Amendment 1, with the objective of gaining a common understanding of the amended provisions in order to standardise regional implementation and harmonise with adjacent regions. In the main, this objective was achieved, however a number of matters were raised for clarification, as follows:

Items for clarification in Amendment 1

- 1) The number of characters in the surveillance equipment and capabilities subset of Item 10 has been defined as a maximum of 20 characters. However other subsets in Item 10 have not had 'maximum characters' defined, nor had many of the other fields. Recognising that a defined number of characters per field or sub field was valuable when coding software as it removed any need to make field capacity available that would never be used, the meeting sought clarification as to the different approach applied to different fields. The meeting also considered that agreeing on an Asia/Pacific requirement for number of characters per field or sub field would result in worthwhile standardisation and economies for States and should be pursued by the Task Force and adopted as a regional flight planning constraint.

In this context IATA raised concerns that the allocation of 16 characters to PBN/ in Item 18 may not be sufficient to adequately record the number of PBN approvals in some instances of long haul flights through a multitude of differing RNP airspaces. IATA would investigate this matter more fully and inform the next meeting of the outcomes.

- 2) The sequence of information in Item 18 has been defined, ensuring that the Item 18 information would be inserted in a specific and repeatable order. This was not the case in Item 10, for example, suggesting that Item 10 information could be inserted in any order. Recognising that a specific sequence of codes was more easily 'read' by automation equipment, the meeting sought clarification as to the different approach applied to different fields.

- 3) In Item 7, the presentation of the Amendment indicated item b) occurring before item a), as shown below, rather than the traditional presentation whereby a) normally precedes b). The rationale for this was unclear and could bestow undue priority on the use of registration markings as the radiotelephony callsign for each flight. The meeting confirmed its strong preference for 'flight number callsigns' and agreed that in the Asia/Pacific implementation, use of the designator for the aircraft operating agency followed by the flight number would take precedence :

~~a~~b) the nationality or common mark and registration marking of the aircraft (e.g. EIAKO, 4XBCD, N2567GA), when:

- 1) in radiotelephony the call sign to be used by the aircraft will consist of this identification alone (e.g. ~~OOTEKCGAJS~~), or preceded by the ICAO telephony designator for the aircraft operating agency (e.g. ~~SABENA OOTEKBLIZZARD CGAJS~~);
- 2) the aircraft is not equipped with radio;

OR ~~b~~a) the ICAO designator for the aircraft operating agency followed by the flight identification (e.g. KLM511, NGA213, JTR25) when in radiotelephony the call sign to be used by the aircraft will consist of the ICAO telephony designator for the operating agency followed by the flight identification (e.g. KLM511, NIGERIA 213, ~~HERBIEJESTER 25~~);

- 4) Item 10 requires the use of 'N' if no COM/NAV/approach aid equipment is carried, or 'S' if standard COM/NAV/approach aid equipment is carried. However the example given at the end of Item 10 does not include N or S, see below: Is there a number of characters limitation on this field that, when reached, results in dropping the first character – or should the S or N always be included?

Example: ADE3RV/HB2U2V2G1

- 5) The changes contained in Appendix 3, Air Traffic Service Messages, now require that Item 18 (Other Information) must now be included in CHG, CNL, DLA, DEP and RQS messages. Although it appears this change is necessitated by the new allowance of FPL filing up to 120 hours in advance which requires inclusion of DOF/ in Item 18, the Amendment 1 to PANS-ATM has the effect of requiring that the entire Item18 be routinely included in CHG, CNL, DLA, DEP and RQS messages. Item 18 is a very lengthy field, so the change has the consequence of vastly increasing the size of ATS messages being sent over AFTN networks and greatly increasing associated message storing and processing functions in ANSP systems which handle these messages.

The example CHG message shown at paragraph 2.3.2.2 includes a DOF/ change, but does not include other Item 18 information (see below), also suggesting that the intention is simply to transmit DOF/ changes in CHG, CNL, DLA, DEP and RQS messages, rather than the full Item 18 information.

(CHGA/F016A/F014-GABWE/A2173-EHAM0850-EDDF-DOF/080122-8/I-16/EDDN)

However, recognising that in automated systems the technique of completely overwriting a full field rather than amending a small portion of a field is commonly used, the meeting realised that it was possible that the new requirement to transmit the entire Item 18 in CHG, CNL, DLA, DEP and RQS messages was necessary. However, the Task Force would study whether adoption of a regional constraint that would result in DOF/ being the only Item 18 information included in CHG, CNL, DLA, DEP and RQS messages was at all feasible. The meeting considered that an urgent clarification was required in this case, as it could not identify any advantage to including full Item 18 data and either the routine transmission of bulky data or adoption of a regional constraint would undoubtedly cause global message processing problems.

- 6) Discrepancies exist between the Item 18 TYP/ data shown for the Flight Plan and that shown for ATS messages. The meeting sought clarification in respect to the use or non-use of commas between aircraft types, noting that the Flight Plan (page 16 of Amendment 1) indicates that

TYP/ Type(s) of aircraft, preceded if necessary without a space by number(s) of aircraft and separated by one space, if ZZZZ is inserted in Item 9.

Example: TYP/2F15 5F5 3B2

whereas, the ATS message (page 30 of Amendment 1) includes commas between aircraft types, as shown below:

TYP/ Type(s) of aircraft, preceded if necessary without a space by number(s) of aircraft and separated by one space, if ZZZZ is inserted in Item 9.

Example: -TYP/2F15, 5F5, 3B2

- 7) The meeting noted that neither the PRESENT or NEW 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 equipage to be notified in RPLs.

The meeting was of the view that having information in relation to equipage was of importance in RPL arrangements and sought ways to formalise the situation. Clarification was sought as to whether it was possible to include an equipment field in RPL, or whether the Task Force should pursue a regional constraint as part of the implementation process.

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IATA

5.5 IATA commended the initiative to change the flight plan format allow users to benefit from modern aircraft capabilities, such as PBN. Such changes are fully embraced by airlines. However, IATA informed the meeting that substantial system and work practice changes would be required by airlines as a consequence of the modifications in the flight plan format. Airline systems will need to conform to the new data fields, sequence and alphanumeric coding by performing modifications to the automation, databases and formatting.

5.6 Likewise, adaptation within the ATS providers' flight data processing systems will be necessary to ensure that the 'NEW' flight plans filed are accepted without any likelihood of rejection or denial of service. Therefore, IATA considered that any non implementation of the changes comprised a 'significant difference' to ICAO PANS-ATM (Doc.4444) and should be notified as a difference in State AIP.

5.7 As airlines plan to meet the effective date of 15 November 2012, they are concerned with the logistics of managing a long-term random transition among the ANSP's at a global level and, based on the information to hand, have the following concerns:

- a) The long transition period prior to the 15 November 2012 effective date may result in regulators, airlines and ANSP's changing over at random.
- b) The possible post-implementation after 15 November 15 2012 by those States and providers unable to implement by the deadline and the consequences to airlines.

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5.10 Based on current information, IATA informed the meeting that they will be targeting a fixed transition date of 15 November 2012 globally for IATA members. The meeting expressed serious concern that such an approach may not allow adequate testing of the interfaces between airline and ground systems and could represent a critical risk to transition. In this respect, the meeting requested that IATA provide details of the transition arrangements proposed by airlines and IATA by way of a working paper to the next Task Force meeting.

5.11 On a slightly different matter, IATA sought clarification of the legal status of the ICAO flight plan format. The situation was clearer in the case of Annex Standards, whereby the *uniform application by all Contracting States is necessary in the interests of safety or regularity of international air navigation*, and also for Recommended Practices, whereby the *uniform application by all Contracting States is considered desirable, but not essential, in the interests of safety, regularity or efficiency of international air navigation*.

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6.4 Accordingly, the meeting considered that the Strategy should be made available for review by the ATM/AIS/SAR and CNS/MET Sub-Groups during June/July 2009 and adopted as an interim edition by APANPIRG/20 in September 2009. An updated version would be submitted to APANPIRG 21 during 2010. The meeting prepared the following draft Conclusion for consideration:

Draft Conclusion FPL&AM TF – 1 – Asia/Pacific Interim Strategy for Implementation of new Flight Plan format

That the ‘*Strategy for the implementation of new ICAO Flight Plan Format and supporting ATS Messages*’ provided in **Appendix F** to the FPL&AM TF/1 report [APANPIRG Report on Agenda Item 3.2] be adopted and published as the interim edition, and States and users be urged to commence implementation planning based on the interim Strategy.

6.5 Arising from the Strategy, the meeting considered that tangible benefits would accrue from gaining an early regional understanding of the progress being made towards implementation. In this respect, the advice by States of scheduled implementation dates was a critical piece of information in aligning regional plans and, to assist States in recognising the importance of this fact, the meeting drafted the following Conclusion for consideration:

Draft Conclusion FPL&AM TF – 2 – Notification of scheduled State transition date to new Flight Plan format

That, in order to align regional implementation planning, by 1 July 2010 States inform the Regional Office of their scheduled date for transition to the new Flight Plan and ATS Message formats.

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Submit only required parameters in filed FPL

6.8 The meeting recognised that in current flight planning arrangements, some of the parameters included in the filed flight plan were not relevant to the specific flight that was to be undertaken, but actually comprised a ‘one size fits all’ situation where the information was transmitted regardless. Noting that the new flight plan format increased the number of descriptors significantly, adoption of a similar one size fits all’ operating philosophy would potentially result in a larger quantity of redundant information being routinely transmitted.

6.9 One possible example of this was in relation to ADF equipage. Although ADF had been removed from the S (standard COM/NAV/approach aid equipage) in Item 10, ADF had its own descriptor (‘F’) which would now be routinely entered into Item 10 in the NEW format for most aircraft. As NDB approaches were now relatively few, it appeared logical that the F be entered only for those flights that were likely to complete an NDB approach at destination, or at alternate destination, rather than the F being entered on all flight plans routinely.

6.10 In this context, the meeting agreed to investigate a philosophy under which only the parameters that were applicable to the flight to destination, and to the planned alternate, were entered into the flight plan filed for the flight. This work would be continued at the next meeting and, in the interim, States and IATA would consider the proposal and conduct surveys/investigations as required.

Date of Flight (DOF) issues

6.11 The meeting noted the new flight plan provisions enabled flight plans to be lodged up to 5 days (120 hours) prior to the Estimated Off Blocks Time (EOBT) for the flight, a change from the 24 hour requirement in the existing provisions. The new provisions also removed the minimum lodgement period of one hour before EOBT.

6.12 Experience in the Asia/Pacific region with plans submitted well in advance of EOBT was that this practice precipitated a large number of CHG messages as operators changed aircraft type, or tail number on a same type but with different equipage, or varied the ETD, or a variety of other modifications to what had originally been filed. Overall, this practice generated a significant amount of message traffic that did not add apparent value to either the aircraft operator or the multitude of ATS units along the path of flight that had to process the many modification messages. To address this problem, in one instance an Asia/Pacific State had published a constraint in AIP under which flight plans would not be accepted more than 8 hours prior to EOBT.

6.13 The meeting agreed that the information that was actually necessary for ATC was that which was accurate shortly before the flight commenced. In this case, a flight plan that was submitted not later than one hour before EOBT would likely contain accurate information, and the one hour submission would generally be adequate for ATC systems to process the information.

6.14 Accordingly, the meeting agreed to investigate the imposition during transition of a regional flight planning constraint under which flight plans would be required to be lodged not earlier than 24 hours before EOBT but not later than one hour before EOBT. This would remove the transition issues associated with DOF/ matters and reduce transmission of CHG messages etc simply because of a change in DOF. The meeting could not readily identify situations where lodgment earlier than 24 hours was necessary and requested that States and users in the Asia/Pacific conduct studies into the circumstances in which it was essential that a flight plan be submitted more than 24 hours in advance or later than one hour in advance of EOBT. Specific circumstances would be examined by the Task Force and mitigated as necessary, however it was anticipated that the Task Force would proceed with a regional constraint during the transition period that limited flight plan submission to the period between 24 hours and one hour before EOBT.