



International Civil Aviation Organization

The Third Meeting of the Asia/Pacific ICAO Flight Plan and ATS Messages Implementation Task Force (FPL&AM/TF/3)

Bangkok, Thailand, 23 – 24 August 2010

Agenda Item 4: Aspects of implementation in Asia/Pacific region

Status of implementation in India

(Presented by India)

SUMMARY

This paper presents update on India's plans to implement the changes in flight plans and associated messages and other issues relating to field length in item 10a and Date of Fight (DOF) for multiple delays.

1. Introduction

1.1 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 AFTN and automated air traffic management systems.

1.2 The impact of the modifications to existing flight data processing systems would vary from one ANSP to another depending on the local data requirements, the level of validation necessary and the types of systems which are currently in use. Efforts are therefore being made to identify and address all implementation issues arising from the adoption of the amended provisions relating to the ICAO flight plan model.

3.3 India has commenced preparations to implement Amendment 1 provisions and initiated steps for extensive study of the requirements in AFTN, AMSS and Automation system. Suitable software changes in the system as an "in-house" initiative has also been taken up.

2. Discussion

2.1 Implementation of the Amendment

2.1.1 Currently, the ATC systems in India use Flight Plan Application Database of Automatic Message Switching System (AMSS) and automation system consisting of Flight Data Processing systems (FDPS) to manage and process flight plans and associated ATS messages data. While implementation of software changes through in-house initiative is already underway in AMSS front-end systems to fully adapt to the changes envisaged in the new FPL form, action have also been initiated to negotiate with the vendors of automation systems to effect the capability of handling the NEW Flight Plan and associated ATS Messages.

2.1.2 The following tasks have been completed in the AMSS front-end systems:

- a) Allow filing of flight plans upto 120 hours in advance.
- b) Perform validity check of various indicators in item 18 according to sequence and entry restrictions as per NEW format.
- c) Validation checks in item 15 to implement the significant point from which change of Flight rule are planned corresponding to entry in Item 8.
- d) Allow alpha numeric characters in item 10.
- e) Inclusion of item 18 in DLA, CHG, CNL and DEP ATS messages.

2.2 Field length in item 10

2.2.1 The system developers however have raised their concerns regarding no restrictions in number of characters in Equipment and Capabilities field under item 10a of FPL. As per amended provisions, theoretically 46 alphanumeric character combinations are permitted in item 10a. Considering the restriction in existing AFTN ATS messages for not exceeding 69 printing and non-printing characters columns in one line as per Annex 10 provisions and item 9 already occupying 10 character columns in the same line of the message, it is likely that without restrictions in item 10a in NEW format there may be situations wherein characters will exceed beyond the limitation imposed by Annex 10. This is applicable equally in AMHS systems also. Other ANSPs may share their experience in this regard for benefit of the states in the region.

2.3 Date of Flight (DOF) issues

2.3.1 To mitigate Date of Flight (DOF) complexities, a regional approach has been adopted for not processing a flight plans which has Estimated Off Block Time (EOBT) more than 24 hours prior to the date of filing during the declared transition period. We would like to express our concern regarding date of flight issue unless adjacent regions viz., MID and ESAF also adopt same strategy for implementation.

2.3.2 In the second meeting of the task force India sought clarification whether only one flight plan could be submitted with respect a particular flight at a time which could be upto 120 hours in advance or airlines/operator are allowed to file more than one flight plans upto 120 hours before EOBT for the same flight number. If it is not so then why flight plan which is submitted more than 24 hours in advance needs to be uniquely identified with 'date of flight' and flight number. Clarification provided by ICAO Headquarter which is given in Para 4.8 of the report of the second meeting of the task force states that:

Quote "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". Unquote

2.3.3 If only one flight plan is to be submitted within 120 hours of operation then inclusion of Field 18 in CHG, CNL, DLA, DEP, RQP and RQS messages become redundant.

2.3.4 As per clarification provided by ICAO Headquarter which is also available in FITS website, it is recommended to insert DOF in all FPLs, and for FPLs filed more than 24 hours in advance it is mandatory. It is recommended to use CHG if a flight is delayed over midnight UTC, indicating in field 22 amendments to both Fields 13b & 18, the EOBT and the DOF/. The new EOBT provided in a DLA shall always be understood as a time that is later than the

previously notified EOBT. The DOF provided within Field 18 of associated messages shall always be the same as the previously notified DOF, to be used for associating the message to the correct flight. If the original message does not specify DOF/, the associated messages shall include (-0-) in field type 18.

2.3.5 An example in which a flight is delayed twice and it was filed more than 24 hours in advance and how it can create complication/confusion to automation system is appended below:

FPL contains: A/c Call Sign: AIC555, EOBT 2350, DOF/100817

2.3.6 Now the flight is delayed and new EOBT is 0100 UTC next day i.e., 18-08-2010 As per recommendations of ICAO HQ change message is to be originated as the flight is delayed over midnight:

(CHG-AIC555-VOMM2350-WSSS-DOF/100817-13/VOMM0100-18/DOF/100818)

2.3.7 Suppose the flight is further delayed and new EOBT is 0230. Since the flight is not delayed over midnight a delay message is to be generated. Doubt exist in this case about DOF to be used in the delay message: DOF/100817 or DOF/100818.

(DLA-AIC555-VOMM0230-WSSS-DOF/100817).

2.3.8 For unique identification of a flight, DOF of the original flight plan (i.e., DOF/100817) should be used in ATS messages. But the system would change the DOF of AIC555 on receipt of CHG message and the delay message will be rejected.

2.3.9 Clarification may be sought from ICAO Headquarter in this regard. Experience of other ANSPs may also be useful to address this issue.

2.4 The Asia/Pacific transition plan

2.4.1 Transition period in Asia Pacific region has been declared from 1st January 2012 to 15th November 2012. A strategy has been adopted for not implementing '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).

2.4.2 India strongly recommends global harmonization in implementation, as it involves coordination with states in adjacent regions also. India is happy to note that Middle East ICAO New Flight Plan Format Study Group (INFPL SG) met in February 2010 and July 2010 in Cairo, and adopted a transition approach similar to the strategy adopted in FPL&AMTF/2. However no development in this regard has taken place in Eastern & South African Region [ESAF]. It is expected that Flight plan and ATS Messages task Force (FPL & AM/TF) of Asia/Pacific region will coordinate with adjacent regions to facilitate smooth and harmonized implementations.

2.4.3 India has set up a dedicated working Group to plan, monitor and implement changes in software for various automation system and is expected to meet the target date of 15th November 2012.

3. ACTION BY THE MEETING

3.1 The meeting is requested to take note of the above and consider appropriate actions to:

- i) Resolve field length issue in item 10a so that states can initiate steps to modify software in Automation systems to implement Amendments 1 of PANS-ATM Doc 4444 15th Edition.
 - ii) Resolve Date of Flight (DOF) when a flight is filed more than 24 hours in advance and delayed more than once with a change of date.
 - iii) Initiate Inter Regional coordination to facilitate harmonization in implementation.
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