



International Civil Aviation Organization

**The Twenty-First Meeting of the APANPIRG ATM/AIS/SAR Sub-Group
(ATM/AIS/SAR/SG/21)**

Bangkok, Thailand, 27 June – 01 July 2011

Agenda Item 5: Review of other relevant meetings

**ASIA/PACIFIC ICAO FLIGHT PLAN & ATS MESSAGES IMPLEMENTATION
TASK FORCES AND SEMINAR (FPL&AM/TF/3 AND /4 AND SEMINAR)**

(Presented by the Secretariat)

SUMMARY

This paper presents the results of the Third Meeting of the Asia/Pacific ICAO Flight Plan & ATS Messages Implementation Task Force (FPL&AM/TF/3, 23–24 August 2010, Bangkok), and the Fourth Meeting of the Flight Plan & ATS Messages Implementation Task Force and Seminar (FPL&AM/TF/4& Seminar, 01–03 June 2011).

This paper relates to –

Strategic Objectives:

- A: *Safety – Enhance global civil aviation safety*
- C: *Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives:

GPI-12 Functional integration of ground systems with airborne systems

1. INTRODUCTION

1.1 The Third Meeting of the Asia/Pacific ICAO Flight Plan & ATS Messages Implementation Task Force (FPL&AM/TF/3) was held at the ICAO Asia and Pacific Regional Office, Bangkok, Thailand from 23 to 24 August 2010.

1.2 The Fourth Meeting of the Asia/Pacific ICAO Flight Plan & ATS Messages Implementation Task Force and Seminar (FPL&AM/TF/4& Seminar) was held at the ICAO Asia and Pacific Regional Office, Bangkok, Thailand from 01 June to 03 June 2011. A FPL 2012 Seminar was held prior to the Task Force itself from 29 May until 01 June 2011.

1.3 Mr. Kyotaro Harano, Regional Officer ATM (Air Traffic Management) acted as Secretary for the FPL&AM/TF/3, and Mr. Len Wicks, Regional Officer ATM (Air Traffic Management), acted as the Moderator of the Seminar and Secretary for the FPL&AM/TF/4. Mr. Stuart Douglas, Senior ATS Systems Specialist, Airways Corporation of New Zealand Ltd. presided as the Chairman of the Task Force and assisted with the Seminar. Mr. Tom Brady from ICAO HQs (Montreal) was the principle presenter at the FPL 2012 Seminar.

1.4 Forty-nine participants from States, IATA and IFATCA attended FPL&AM/TF/3. Twelve working papers, twelve information paper and one flimsy were presented to the meeting. Eighty-four participants from States, IATA and IFATCA attended FPL&AM/TF/4 and Seminar. A total of eighteen working papers, ten information papers and one flimsy were presented to the meeting.

2. DISCUSSION

FPL &AM/TF/4 Seminar

2.1 The Seminar emphasized the critical nature of the FPL 2012 amendments, which had the potential to result in significant aviation disruption if the changes were not harmonized and completed by the applicability date. As at 01 January 2011, States should already have completed the safety assessment and developed their system requirements in order to provide a detailed proposal for vendors, or to commence in-house software development. Moreover, States that intended to use a vendor but had not yet signed a contract needed to do so urgently because the time to commence testing was not far away. The need for ANSPs to work together was emphasized, to support States that were behind the implementation schedule, and to be in constant contact with the Regional Office.

2.2 All seven ICAO Regions had agreed to transition in line with the timeline consistent with the APAC Regional Guidance Material. ICAO was asking for all Air Navigation Service Providers (ANSPs) to be ready to accept the filing of both NEW and PRESENT plans by 01 July 2012. Seminar participants were advised that a transitional switchover to NEW format plans was preferable to a 'big bang'; thus many airlines and States were considering a change in the immediate days before 15 November 2012.

2.3 States were reminded that they needed to assess the safety risks of the transition as part of their Safety Case under Annex 11, test the interfaces between transport media, and develop extensive implementation checklists, checks and transition processes. The military needed to be involved in the transition planning as they often have defence systems that interfaced with the civil systems, ATFM (Air Traffic Flow Management) and third party systems, SAR (Search and Rescue) systems, noise management systems, and charging systems.

2.4 It was noted that the use of a FPL 2012 converter required serious thought as there was a concern that such converters may affect downstream data being forwarded, and may not support the advanced features required by aircraft operations.

2.5 There was extensive discussion at the Seminar about manual flight data processing systems, which would need to be taken into account, especially in regard to training of staff. It was recognised that States that have responsibilities for an FIR will have to make smaller States within their FIR aware of the manual processes if they used such methods. Currently most ATC systems had a form of automation that recognised the capabilities of the aircraft as an add-on. Flight data personnel would be most affected by the change, especially for rejected flight plans, thus training aspects should concentrate on these personnel. There was a small ATC education requirement about some of the new flight plan elements.

2.6 The following details the Seminar presentation topics:

- Session 1: Detailed Implementation Plans
- Session 2: Transition
- Session 3: Transport Media

- Session 4: Testing
- Session 5: Vendors and Stakeholders
- Session 6: Documentation
- Session 7: Safety Assurances
- Session 8: Training Templates
- Session 9: Spreading the Message
- Session 10: Finance
- Session 11: Strategic Support Teams

Review of related meetings

2.7 FPL&AM/TF/3 reviewed material from the 21st Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/21, 6-10 September 2010).

Review of available documentation and guidance materials

2.8 To avoid a conflict between PANS-ATM (Doc 4444) and the Regional Supplementary Procedures (SUPPS, Doc 7030), it was considered necessary to review the current regional material to ensure it aligned with the forthcoming Amendment 1. In addition, the meeting suggested that the differences between the MID/ASIA and PAC Regions regarding Mach number requirements should be made consistent between the Regions. It should be noted that any proposed changes would have to be consulted with other ICAO Regional Offices via ICAOHQs, with the overlap in responsibilities. The following proposed changes were agreed as highlighted in **Appendix A**.

2.9 The Air Navigation Commission (ANC) had been requested by the European Air Navigation Planning Group (EANPG) to approve an amendment to EUR SUPPs to allow the use of supplementary designators in order to continue using the current EUROCONTROL system, such as the non-standard indicator, “EUR/. ICAOHQs advised that the ANC have rejected the EANPG request but it was noted that the existing RVR/ (Runway Visual Range) and RFP/ (Replacement Flight Plan) indicators would be retained in the European SUPPs.

2.10 As a result of an omission, one minor amendment was made as highlighted to the Asia/Pacific Guidance Material for the Implementation of Amendment 1.

ORGN/	RMK/ORGN <text after ORGN/>
-------	-----------------------------

2.11 The conversion of DOF (Date of Flight) to PRESENT format introduced inconsistency if a NEW format flight plan was submitted more than 24 hours in advance. The meeting discussed the problem of airlines filing earlier than 24 hours ahead of flight. It was noted that the Regional Guidance Material for the transition already contained a recommended practice of not accepting plans earlier than 24 hours before flight. The decision on how to manage this situation after the transition was deferred until there was sufficient information on whether this was a major problem.

2.12 In Appendix 2 of Amendment 1, sub-paragraph 2.2, Field 10 (b), while “N – NIL” is deleted, a new paragraph is added: Insert ‘N’ if no surveillance equipment for the route to be flown is carried, or the equipment is unserviceable. In Appendix 3 of the Amendment, sub-paragraph 1.2 under Field 10 (b), unlike Appendix 2, while ‘N – Nil’ is crossed out, no new provision for the use of ‘N’ had been inserted. This implied ‘N’ cannot be used in this Field and operators would not be able

to indicate that the equipment was not installed or unserviceable. ICAOHQs advised that they would take note of this, and if it was a typographical error, it would be fixed.

2.13 Other areas of inconsistency that would be discussed and clarified by an inter-regional contact group headed by ICAOHQs were as follows (**Appendix B** contains a mind-map of subjects to be clarified by this group):

- Reasons for Special Handling (STS/) – ATFMX (exempt from Air Traffic Flow Measures), FLTCK, HAZMAT (Flight Check flights and hazardous materials), MARSAs (Military flights to Assume Responsibility for Separation), NONRVSM;
- Standards and Capability of Equipment – Field 10b (ADS-B, GNSS, etc); and
- Handling of Non-Standard Field 18 Information, including use of oblique strokes.

Aspects of implementation in Asia/Pacific regions

2.14 APANPIRG/21 discussed Amendment 1 and agreed to Conclusion 21/13, which emphasised the need for urgent and appropriate coordination with neighbouring States and FIRs:

Conclusion 21/13 – Coordination for the Transition to the NEW Flight Plan Format among States

That, as the global and the regional harmonization is crucial in implementing the NEW flight plan format by 15 November 2012, States start close coordination soon with adjacent States/FIRs on transition about, but not limited to:

- i) difference of timing for transition between the States/FIRs;*
- ii) operations in the mixed environment of PRESENT and NEW;*
- iii) operational transition for AIDC; and*
- iv) procedures when ATS messages are not processed properly.*

2.15 A State Letter was issued in order to request information of this nature. In addition States were requested to provide information on the State's impact assessment of this change. Nine administrations responded to the survey, and those that responded indicated a high level of compliance with the Amendment 1 transition dates. Most respondents either indicated minimal transition impact (with the exception of the USA) or no information on this matter was submitted.

2.16 The meeting discussed the need to coordinate with airspace users. Information through AIC/AIP (Aeronautical Information Circular/Aeronautical Information Publication) was considered important to keep people informed. States were encouraged to test local carriers first and transition domestic operations early, if possible. ICAOHQs advised that FITS would be updated to allow extra information of this nature to be promulgated. It was suggested that a standard AIDC (ATS Inter-facility Data Communication) test programme that ANSPs could use would be beneficial. ICAO HQ noted the need for this from a global perspective, and the meeting agreed to develop this further through discussion between States.

2.17 IATA had recently undertaken another survey of airlines operating within the Asia/Pacific Regions to confirm the status of preparations of airline operators. The survey was conducted in April - May 2011 and focused all major airlines operating across international borders (including non-members). Of the Asia/Pacific-based airlines, 36 confirmed readiness with two unsure (awaiting vendor solution). All the airline members from outside the Asia Pacific region who operated significantly within this region confirmed their readiness and support for State testing.

2.18 The Philippines advised that they were subscribed to the European Aeronautical Database (EAD) and may adopt the European flight planning system when developed, and was concerned that their flight plans may contain European only elements. The meeting discussed this and did not consider that the use of EAD would adversely affect APAC States.

2.19 States need a communications implementation plan to ensure that information could be delivered to other States and to support the Regional Office quarterly questionnaire (1 July 2011, 1 October 2011, 1 January 2012, 1 April 2012, and 1 July 2012 if required) that was developed during the Task Force and attached as **Appendix C**. The HQ representative confirmed that the FITS would be upgraded to allow this information from the questionnaire to be displayed appropriately.

2.20 Asia/Pacific States noted the status of implementation plans as follows in brief:

- Australia had not yet signed a contract with a software vendor, but was developing a Safety Case, and assisting Nauru, Indonesia and the Solomon Islands;
- Bangladesh's existing AFTN (AMSS) system affecting flight plan processing was expected to be replaced within one year and an international tender had attracted interest from several vendors;
- Cambodia had signed a contract with a vendor (Thales);
- China had a detailed plan to implement FPL 2012; software was expected to be ready by September 2011, which was being developed in-house;
- Hong Kong China had completed the procurement and the design of a Front End Processors (FEP) to convert messages from NEW format to PRESENT format and bypass messages of PRESENT format to existing systems;
- Fiji had conducted a gap analysis, and there were two proposals from vendors;
- India had commenced preparations to implement Amendment 1 by initiating software changes in-house and intra-system testing had been successfully carried out between Delhi and Varanasi in the second week of May 2011;
- Indonesia would be upgrade the MATSC (Makassar ATS Centre), while the JAATS (Jakarta ATS Centre), Bali, Surabaya, and Balikpapan ATS units would use converter software to translate between NEW and PRESENT format, which would be developed in-house and with local vendors;
- Japan would upgrade their ATM system to be FPL 2012 compliant in 2012, which was part of a total change plan by 2015;
- Lao PDR had finished a master plan and Thales was the software vendor;
- Malaysia had identified that the FPL and ATS associated masks in the Flight Data Processor Server (FDP) will be upgraded in the Kuala Lumpur Air Traffic Control Centre, Kota Kinabalu Air Traffic Control Centre and Kuching Air Traffic Control Sub-Centre to be ready by December 2011;
- Mongolia had approved the transition plan, with their vendor Avitech implementing 2012 Flight Plan capability by October 2011;
- Myanmar were discussing an upgrade with Thales;
- New Zealand had written Change Specifications for their ATM systems and software changes had been scoped for in-house development;

- The Philippines were expecting to include FPL 2012 requirements in the upgrade of their ATM system to a new Czech supplier, although there was no exact timetable for this development. Internal testing of existing Comsoft/AFTN equipment had been undertaken and was successful;
- Korea had decided to use a convertor ;
- from a local company, except that one of the ATM systems (Incheon) was being provided by Thales and discussions for an upgrade were in progress;
- Singapore’s ability to accept flight plans in the NEW format by 15 November 2012 would be contingent on the availability of the Flight Plan convertor in the market and the success in integrating the convertor with existing ATC systems;
- Thailand was implementing a new Flight Data Management System to accommodate FPL 2012 in line with APAC Guidelines, internally developed;
- The United States had a large number of impacted systems. The domestic operation was transiting to new system. The USA was implementing FPL 2012 in legacy and new systems, using in-house software. Honolulu and Anchorage were two systems with unique characteristics that had to be updated; and
- Viet Nam had established a FPL 2012 Study Group of Viet Nam Air Traffic Management.

2.21 At the time of the FPL&AM/TF/4, the following Points of Contact were indicated as unknown on the FITS website: Afghanistan, Democratic People's Republic of Korea, Lao People’s Democratic Republic, and Sri Lanka. In addition to these four States, the implementation status of Bangladesh and Papua New Guinea were not clearly able to be determined.

2.22 China had notified Regional Office by letter dated 24 December 2010 that their transition testing period would commence in October 2012, which was different from the 01 July 2012 date in the Regional Guidance Material. However, at the FPL&AM/TF/4 China were able to advise that they had full support and the required resources for FPL 2012, and could be capable of much earlier external testing if the internal testing programme proceeded as anticipated.

Regional strategies for implementation

2.23 Australia had published an AIC detailing transition arrangements and implementation details for the 2012 ICAO Flight Plan. This was considered to be a useful as a guide for the APAC Regions and was published as material that could be used as a template.

2.24 Australia agreed to develop a FPL 2012 Training Template, and New Zealand, USA, Japan and China would peer review this and augment as necessary. This was considered to be a valuable tool that could be ready for other APAC (Asia/Pacific) States or for ICAOHQ to use by the next Task Force meeting.

2.25 The APAC Regional Office had issued a series of State letters in the last 18 months to highlight the need to raise awareness in the Asia/Pacific Regions, and to urge the facilitation of information indicating the preparedness of APAC administrations to the Regional Office in order to support FITS. The meeting discussed the need to support States that may be falling behind, in the form of support from International Organizations, and experts from ‘Champion States’. This was a further development of the Strategic Support Teams being envisaged at the FPL&AM/TF/4 Seminar.

2.26 With every ICAO region having now established a Task force (or similar) to prepare for the changes, IATA considered it was opportune to review some of the content of the Flight plan and note some potential impacts, such as:

- how to manage delayed flight designators; and
- Performance–Based Navigation (PBN) future categories.

2.27 The meeting discussed the need to develop a precise plan on how to manage the last 72 hours before the 15 November 2012 change to NEW format.

Date and venue for the next FPL&AM/TF meeting

2.28 The next meeting was scheduled during the October – November 2011 period, at a specific time and venue to be advised.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) note the progress of APAC States and the strategies being developed to assist administrations that may fall behind the targeted testing and implementation times; and
- c) discuss any relevant matters as appropriate.

.....

Appendix A: Doc 7030 Proposed Amendments

Doc 7030 Flight Planning – MID/ASIA

Chapter 2. FLIGHT PLANS

2.1 CONTENT – GENERAL

2.1.2 Area navigation (RNAV) specifications

2.1.2.1 State aircraft operating in the ICAO MID Region

~~2.1.2.1.1 Operators of State aircraft not equipped with RNAV equipment meeting RNP 5 shall not insert the designator “S” or “R” in Item 10 of the flight plan.~~

~~2.1.2.1.2 Since such flights require special handling by air traffic control, “STS/NONRNAV” shall be inserted in Item 18 of the flight plan.~~

2.1.3 Required navigation performance (RNP) specifications

~~2.1.3.1 The letter R shall be inserted in Item 10 (Equipment) of the flight plan to indicate the aircraft meets the RNP type prescribed, has been appropriately approved and can comply with all conditions of that approval.~~

~~2.1.3.2 Operators of aircraft fitted with RNAV having a navigation accuracy meeting RNP 5 shall insert the designator “R” in Item 10 of the flight plan for operation in the ICAO MID Region, as specified in 4.1.1.5.3.~~

2.1.5 Reduced vertical separation minimum (RVSM) approved aircraft

~~2.1.5.1 The letter W shall be inserted in Item 10 (Equipment) of the flight plan if the aircraft and operator have received RVSM State approval, regardless of the requested flight level. The aircraft registration shall be inserted in Item 18 of the flight plan.~~

Doc 7030 Flight Planning – PAC

Chapter 2. FLIGHT PLANS

2.1 CONTENT – GENERAL

2.1.3 Required navigation performance (RNP) specifications

~~2.1.3.1 The letter R shall be inserted in Item 10 (Equipment) of the flight plan to indicate the aircraft meets the RNP type prescribed, has been appropriately approved and can comply with all conditions of that approval for all operations in airspace or on ATS routes where an RNP type has been designated.~~

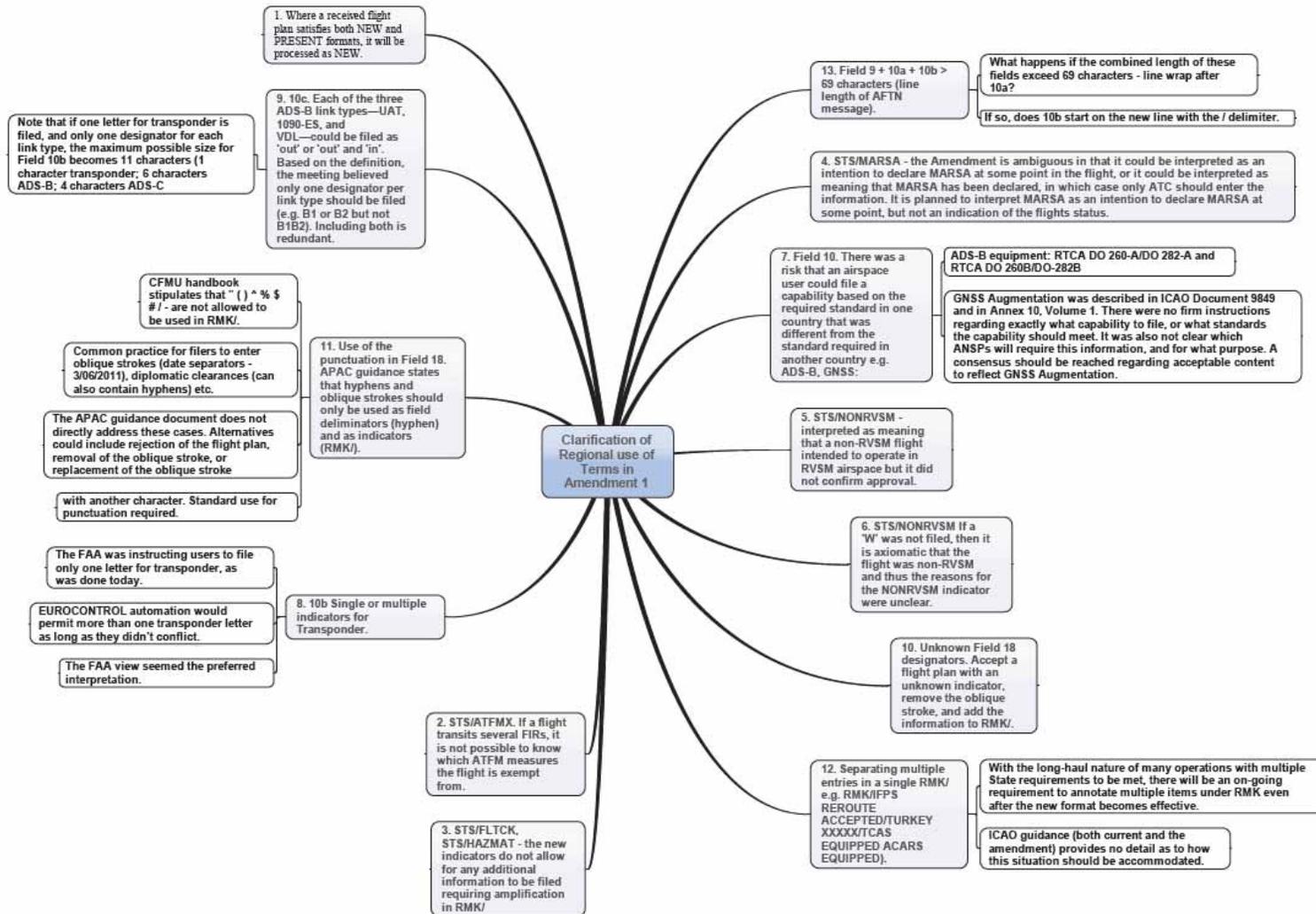
2.1.5 Reduced vertical separation minimum (RVSM)-approved aircraft

~~2.1.5.1 The letter W shall be inserted in Item 10 (Equipment) of the flight plan if the aircraft and operator have received RVSM State approval, regardless of the requested flight level. The aircraft registration shall be inserted in Item 18 of the flight plan.~~

2.1.11 Mach number

~~2.1.11.1 For turbo-jet aircraft intending to operate within airspace and on air routes to which longitudinal separation minima utilizing Mach number technique will be applied within the Anchorage Oceanic and Oakland Oceanic FIRs, the planned true Mach number shall be specified in Item 15 of the flight plan.~~

Appendix B: Clarification of Amendment 1 Issues



Appendix C: APAC Quarterly Questionnaire

APAC FPL 2012 Software Questionnaire		Remarks
State/Administration		
Flight Information region (s)		
1. Has a FPL 2012 cost and resource capability assessment been conducted?		
2. Has the FPL 2012 Safety Assessment commenced?		
2a. If yes, what Safety Assessment step has been reached?		
3. What other major changes to the ATM system are also being made?		
4. Which agency is developing the FPL 2012 software?		
5. What stage is the software development?		
6. If a software vendor is contracted, advise which vendor?		
7. Is your State using a front end converter?		
7a. If yes, when is the converter going to be replaced by a FPL 2012 compliant FDPS?		
8. When will the internal testing commence and when is it expected to be completed?		
9. When will testing be able to be conducted with other ANSPs?		
10. When will testing start with airlines/operators?		