

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



**REPORT OF THE THIRD MEETING OF THE ASIA/PACIFIC ICAO
FLIGHT PLAN & ATS MESSAGES IMPLEMENTATION TASK FORCE
(FPL&AM/TF/3)**

BANGKOK, THAILAND, 23 – 24 August 2010

The views expressed in this report should be taken as those of the meeting
and not the Organization

Approved by the meeting
and published by the ICAO Asia and Pacific Office, Bangkok

FPL&AM/TF/3
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1.1 Introduction

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

1.2 Officers, Secretariat and Participants

1.2.1 Mr. Stuart Douglas, Senior ATS Systems Specialist, Airways Corporation of New Zealand Ltd was elected as the Chairman of the Task Force and presided over the meeting throughout its duration.

1.2.2 Mr. Kyotaro Harano, Regional Officer ATM, acted as Secretary for the meeting.

1.2.3 Forty-nine participants from Australia, Cambodia, China, Hong Kong China, India, Japan, Lao PDR, Malaysia, Maldives, Mongolia, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Singapore, Thailand, United States, IATA and IFATCA attended the meeting. A list of participants is in **Appendix A**.

1.3 Opening of the Meeting

1.3.1 Mr. Kyotaro Harano, on behalf of Mr. Mokhtar A. Awan, Regional Director, ICAO Asia and Pacific Regional Office, opened the meeting and welcomed participants to Bangkok. He was glad to see more and more States were now joining the Task Force and this certainly demonstrated that State were beginning to recognize the NEW 2012 flight plan issue was an unguent matter to be addressed. It was evident that States were beginning to recognise that the implementation date was only two years away and time was short in properly preparing for the implementation.

1.3.2 Mr. Harano reminded the meeting that momentum for the implementation of NEW for 2012 should not be lost. In this regard, the 20th meeting of the ATM/AIS/SAR Sub-group (ATM/AIS/SAR/SG/20, July 2010) expressed the view that implementation of the NEW flight plan format would be a problem if it is not implemented in a uniform manner globally. It was considered important for States to review urgently the status and readiness for implementation. Concern was raised at ATM/AIS/SAR/SG/20 that some States might not be able to meet the target date of implementation. In view of this, the Task Force was expected to make a firm decision in a timely manner. Mr. Harano advised the meeting that the ICAO Flight Plan Implementation Tracking System (FITS) would be shown up on the screen on Day 2 and would invite States to provide the target date and at least contact person.

1.4 Documentation and Working Language

1.4.1 The meeting was conducted in English. All meeting documentation was in English.

1.4.2 Twelve (12) working papers, twelve (12) information paper and one (1) flimsy were presented to the meeting. A list of the papers is at **Appendix B**.

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Agenda Item 1: Adoption of Agenda

1.1 The meeting adopted the following agenda:

- Agenda Item 1: Election of the Chairperson and Adoption of Agenda
- Agenda item 2: Review outcomes of related meetings
- Agenda item 3: Review available documentation and guidance materials
 - o Amendment 1, 15th Edition PANS-ATM (Doc 4444)
 - o ICAO Guidance for Implementation of Flight Plan amendment
 - o Performance Objective – Performance Framework Form
- Agenda item 4: Aspects of implementation in Asia/Pacific region
- Agenda item 5: Regional strategies for implementation
- Agenda Item 6: Review and update FPL&ATM/TF Task List
- Agenda Item 7: Any other business
- Agenda Item 8: Date and venue for the next FPL&AM/TF meeting

1.2 Subsequently, the meeting proceeded to the election of the Chairperson. The Secretariat had requested Mr. Stuart Douglas, Senior ATS Systems Specialist, Airways Corporation of New Zealand Ltd to be the Chairman. Japan seconded the nomination. The meeting unanimously elected Mr. Douglas as the Chairman of the Task Force.

Agenda Item 2: Review Outcomes of Related Meetings

Review Report of ATM/AIS/SAR/SG/20

2.1 The meeting reviewed the report of the 20th Meeting of the Air Traffic Management/Aeronautical Information Service/Search and Rescue Sub-Group (ATM/AIS/SAR/SG/20, July 2010) which reviewed the outcomes of FPL&AM/TF/2 (November 2009, Bangkok) as well as the 20th Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/20, September 2009) and other ATM/AIS/SAR-related meetings. Full copy of the meeting report is available on the website of Asia and Pacific Office at <http://www.bangkok.icao.int/> under the 'Meetings' menu.

Second Meeting of Flight Plan and ATS Messages Implementation Task Force

2.2 ATM/AIS/SAR/SG/20 noted that FPL&AM/TF/2 and a seminar were held at ICAO Asia and Pacific Office, Bangkok, Thailand from 17 to 20 November 2009. FPL&AM/TF/2 prepared the draft document titled *Asia/Pacific Guidance Material for the Implementation of Amendment 1 to Procedures for Air Navigation Service – Air Traffic Management, (PANS-ATM, DOC 4444), 15th Edition*. ATM/AI/SAR/SG/20 reviewed the draft document and adopted the Draft Conclusion as follows:

Draft Conclusion SG 20/2 – Regional Guidance Material for the Implementation of Amendment 1 to PANS-ATM

That, in order for States to clearly understand what is intended in Amendment 1, the ‘*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)*’ provided in Appendix A to the Report on Agenda Item 4 be adopted and published as regional guidance material.

2.3 FPL&AM/TF/2 had adopted an Asia/Pacific approach using a phased transition, where ANSPs would implement NEW, followed by users. A transition period was declared, commencing 1 January 2012 and ending 15 November 2012.

2.4 ATM/AIS/SAR/SG/20 noted the phased implementation and thanked FPL&AM/TF for the work. It was particularly noted that both the PRESENT and the NEW flight plan formats would be accepted during the Phase 3 from 1 July to 15 November 2012 by ANSPs, and users could file either format. In light of the above, the meeting adopted the following Decision:

Decision SG 20/3 – Phased Approach to Implement the NEW Flight Plan Format

That, in order to implement the NEW flight plan format in a progressive and orderly manner, the phased implementation developed by the Flight Plan & ATS Message Task Force be adopted.

2.5 On the basis of the updated and firm information, and the regional approaches agreed by the Task Force, the meeting reviewed the regional implementation strategy for implementation and adopted the following Draft Conclusion:

Draft Conclusion SG 20/4 – 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 B to the Report on Agenda Item 4 be adopted and published as the interim edition. States and users are urged to continue implementation planning based on the strategy.

2.6 The meeting expressed the view that implementation of the NEW flight plan format would be a problem if it is not implemented in a uniform manner globally. Furthermore, there would be huge problems if no fall back arrangement was to put in place. It was therefore considered important for States to review urgently their status and readiness for implementation. It was recognized that despite the action taken two years ago by establishing the Task Force, there were still a number of concerns on its implementation. Concern was raised that some States might not be able to meet the target date of implementation. IATA stated that it was not just flight plans but also expected huge problems associated with the changes in numerous ATS message formats. It was recognized that it was high time that States came up with strategies and timelines for implementation of transition plan. In view of the above, the Task Force was expected to make a firm decision in a timely manner. IFATCA also endorsed the concerns expressed by IATA. It was emphasized that global harmonized implementation could only be achieved through timely coordination work carried out by ICAO Headquarters.

2.7 States will be urged to provide details at the APANPIRG/21 meeting in September and again at the DGCA meeting in October 2010. Discussion centred on the role of ICAO (both Regional office and HQ) in taking follow-up action with States. The Secretariat advised a dedicated officer has been appointed at HQs to deal with the 2012 Implementation but unfortunately he was not able to attend the Task Force meeting. It is hoped he will attend TF/4.

2.8 Note the requirement in the Interim 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

2.9 IATA stated that the United Kingdom was not ready to accept and they were not going to have the software ready to implement the NEW flight plan format. This would cause problems to all international airlines operating to and from the United Kingdom and have a wide impact. It was further stated that ICAO would be required to take a decision on the implementation date of November 2012 as it remains unrealistic.

2.10 The Secretariat informed that only Australia, Hong Kong China and Japan had so far informed the Regional Office of scheduled date and implementation methodology for transition in accordance with Conclusion 20/8. With a timeframe remaining before the NEW flight plan format effective date in 2012, it was vital that this information was available for planning purposes at the forthcoming FPL&AM/TF/3 to be held on 23 and 24 August 2010. States were **urgently** requested to provide this information to the Regional Office as required by Conclusion 20/8 to ensure the information is available prior to FPL&AM/TF/3.

Flight Plan Implementation Tracking System (FITS)

2.11 ATM/AIS/SAR/SG/20 noted that a State letter had been issued by ICAO Headquarters requesting States to inform the respective ICAO Regional Office accredited to States of actions completed toward implementation of the PANS-ATM provisions regarding the NEW ICAO flight plan content which will ensure current status of FITS in each State. This issue was discussed and some updates were provided. In view of this, the meeting formulated the following Draft Conclusion.

Draft Conclusion SG 20/5 – Notification of State Transition Date to the NEW Flight Plan Format

That, in order to keep the ICAO Flight Plan Implementation Tracking System (FITS) website updated, States which have not yet provided data inform the Regional Office of the initial set of data required in the FITS website, such as scheduled date and contact person, by 22 October 2010, and subsequently update the data as required.

Global ATS Inter-Facility Data Communications (AIDC) Interface Control Document (ICD)

2.12 APANPIRG/20 recognized the benefits that would accrue from a common Global Oceanic and Remote ICD, and thanked the United States for agreeing to undertake this work. APANPIRG adopted Decision 20/14 which supported the work being undertaken by the United States to coordinate a global Interface Control Document (ICD) for AFTN ATS Inter-Facility Data Communication (AIDC) and requested the Regional Office to act as the regional point of contact for this work.

2.13 The United State Federal Aviation Administration (FAA) drafted a *Global Interface Control Document (ICD) for ATS Inter-Facility Data Communications (AIDC)* which was provided to the Informal Pacific ATC Coordinating Group (IPACG) for review and comments. ATM/AIS/SAR/SG/20 took note of activities carried out by the United States for the development of the global document and appreciated the work carried out. As the meeting did not have the expertise, participants were requested to take this information back to respective States for review and to provide resulting comments to Ms. Karen Chiodini (email: Karen.L.Chiodini@faa.gov) by 31 August 2010. With respect to the approval procedure of the document, it was informed that the same procedure undergone for approval of the *Global Operational Data Link Documents (GOLD)* would be also applicable for the Global ICD. The document, however, was expected to be completed for consideration by APANPIRG in 2011, and the meeting felt that it was too early to formulate a Conclusion. The meeting suggested the United States to submit the document to the CNS/MET Sub-Group meeting to be held in Jakarta from 19 to 23 July 2010. The Secretariat informed that the Asia/Pacific AIDC Implementation Seminar would be held in Bangkok on 12 and 13 October 2010, and advised that the forum could be used to seek comments.

ADS/CPDLC Operational Trial and the Proposed Action Plan for Transition from the Trial to the Operational Implementation in the Ujung Pandang FIR

2.14 The meeting was informed that Indonesia had conducted the ADS/CPDLC operational trial on oceanic ATS routes A461, B462, B583, B472, B473, B584 and R340/R590 in the Ujung Pandang FIR for all aircraft equipped with FANS-1/A from 3 July 2008 to 3 June 2010. During the first year of the trial, some problems were experienced, which were resolved by 2009. However, AIDC test continued. Indonesia has prepared the AIP Supplement on ADS/CPDLC operation in the Ujung Pandang FIR for publication on 29 July 2010 to notify the operation effective from 23 September 2010.

Agenda Item 3: Review available documentation and guidance materials

Items of Interest from other Regional Task Forces Implementing Amendment 1 to PANS-ATM, Doc 4444, 15th Edition

3.1 United States informed the meeting that a number of ICAO regions had established task forces (TF) to develop transition plans. 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 regional TF meetings is presented herein.

FAA Participation in other Task Forces

3.2 EUROCONTROL 2012 FPL Task Force (2012 FPL TF) met September 2009 and February 2010 in Brussels, Belgium, 2012. No additional meetings are currently scheduled.

3.3 **Transition Strategy:** Most attendees expect to be ready by the Applicability Date; however, there were a few members who do not intend to make any changes for Amendment 1 as they plan to update flight data processing systems in the 2013/2014 timeframe. The 2012 FPL TF implementation plan will allow users to file NEW in spring 2012; however, EUROCONTROL will translate NEW to PRESENT, and only send PRESENT to member States and ANSPs until 12 November 2012.

3.4 Middle East ICAO New Flight Plan Format Study Group (INFPL SG) met in February 2010 and July 2010 in Cairo, Egypt. The FAA submitted an Information Paper on regional TF activities.

3.5 Caribbean South American (CAR/SAM) Communications, Navigation and Surveillance/Air Traffic Management Subgroup (CNS/ATM/SG) Project C3, *Implement the new ICAO flight plan format*. CNS/ATM/SG/1 was held in March 2010 in Lima, Peru. The Meeting adopted the following items:

3.6 **Adopt a CAR/SAM strategy for implementation of Amendment 1.** The strategy harmonizes with dates and phases adopted by FPL&AMTF/2.

3.7 **Establish a Project Team to oversee implementation of Amendment 1 in the CAR/SAM Regions.** Group Project C3, *Implement the new ICAO flight plan format*, was established as part of the Automation and Situational Awareness Programme.

3.8 **Conduct a seminar on the Implementation of Amendment 1 for the CAR/SAM Regions.** A NAM/CAR ICAO 2012 Seminar and TF was held 12-13 July 2010 in Mexico City, Mexico.

3.9 FAA and NAV CANADA (Canada) Bi-lateral TF (N12) met in September 2009 in Ottawa, Canada; monthly TF telecons began in January 2010. The TF plans a harmonized implementation based on the phased transition approach and dates set out by FPL&AM/TF2.

Other FAA Activities

3.10 An FAA team 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.

3.11 The FAA has finalized an updated Conversion Table for NEW to PRESENT based on iterative work from participation in various TFs and internal meetings.

3.12 The guidance to determine whether an FPL is PRESENT or NEW has been revised.

3.13 The FAA provides guidance to filers online at the following URL: www.faa.gov/ato?k=fpl. The shortcut to the URL to the ICAO 2012 information can be found at: www.faa.gov/go/fpl2012. The website includes information on the FAA implementation of Amendment 1 and on monthly telcons which discuss flight plan filing issues with the user community ("General Information" then "Flight Plan Filer (FPF) Telcons"). The website has been updated to include multiple presentations providing an overview of ICAO guidance and the changes introduced by Amendment 1 as well as a guidance and checklist for implementation.. These materials are also available upon request to frederick.ctr.carmona@faa.gov.

3.14 The FAA plans to address to the Airline Dispatcher's Federation in Washington, D.C. on 12 October 2010.

Differences between Asia Pacific FPL&AM/TF/2 Guidance Material, and FAA and EUROCONTROL Coding Guidance

3.15 United States recalled that FPL&AM/TF/2 published draft coding guidance in November 2009. The FAA has noted a few specific differences between that guidance, the FAA's guidance and EUROCONTROL's latest directive in the areas of PBN/ consistency checking and determining whether an FPL is NEW or PRESENT.

PBN/ Consistency Checking

3.16 EUROCONTROL, the FAA and APAC are in agreement with the exception of the following:

3.17 FPL&AM/TF/2 Draft Implementation Guidance references a NEW Item 18 PBN/C5 entry (para. 5.5, 4th bullet). This is a typographical error as Amendment 1 does not define C5.

3.18 The consistency check should include checking for "R" in Item 10, Field 10a whenever a PBN/entry appears in Item 18.

Differentiating between NEW and PRESENT Formats

3.19 The following differences were identified in Section 7 of the draft Implementation Guidance compared with the FAA and EUROCONTROL tables.

3.20 In determining as PRESENT format:

3.21 The APAC guidance incorrectly notes that "D" would appear in Field 10a. "D" would be filed in Field 10b.

3.22 The FAA noted that entries of "E", "P" or "Q" in Field 10a would also denote PRESENT format.

3.23 The FAA clarified the logic for evaluating PER/ entries in Item 18. It was suggested that PRESENT format is denoted by "an Item 18 PER/ entry of more than a single alpha character or a letter that is not allowed by DOC 8168 Volume I.

3.24 In determining as NEW Format:

3.25 The APAC guidance is missing "P8" and "P9" in the list of Field 10a possibilities. Additionally, the FAA suggests that checking for a numeric value in Field 10a rather than checking against a predefined list may also be an acceptable approach.

3.26 Similarly, in the evaluation of Field 10b the FAA suggests that checking for "E", "H" or "L" or for any numeric value may be an equally acceptable approach.

Validity Checking & Processing of Item 18 Indicators

3.27 Section 5.6, item a, states that indicators not defined in the PANS-ATM should not be accepted, with exceptions being allowable for flights wholly within a FIR (i.e., won't affect other ANSPs).

3.28 In developing transition plans, EUROCONTROL in particular encountered difficulty in establishing filing practices within the Amendment 1 constraints that meet the requirements and permit filing of all required information in a way that is adequately detectable by automation. They therefore will use at least one non-standard indicator, “EUR/.” Perhaps the guidelines should indicate the acceptability of this approach. This is at odds with the draft Asia/Pacific Guidance Material which states “*Systems should not accept indicators in Item 18 which are not defined in the PANS-ATM.*” Australia wondered why the RMK/element wasn’t used for this purpose. The Chairman undertook to request clarification from EUROCONTROL about the use of non Doc 4444 Field 18 elements.

3.29 Philippines advised the meeting that they are subscribed to the European AIS Database and may adopt the European flight planning system when developed, and was concerned that their flight plans may contain European only elements. This will be investigated.

3.30 In evaluating FAA automation systems, two different approaches to handling unknown Field 18 indicators were found. In one FAA system, unknown indicators are changed to remove the “/” character, and moved to be part of RMK/. For example, if ABC/SOME TEXT RMK/SOME REMARKS was filed the system will change it to RMK/SOME REMARKS ABC SOME TEXT.

3.31 Because of the high incidence of improper or unknown indicators encountered, this method was considered preferable to rejecting the message, since all rejected messages must be corrected by local flight data personnel.

3.32 This seems to indicate the possibility of two approaches, depending on whether the system in question is able to return accept/reject messages to the filer. Perhaps the guidelines should allow for this kind of flexibility in order to raise the acceptance rate on FPLs.

3.33 The meeting agreed that the FAA use of RMK/ for handling unknown Field 18 indicators was acceptable.

Asia/Pacific Regional Guidance Material Conversion from New Format to Present Format

3.34 New Zealand informed the meeting that EUROCONTROL’s “CFMU Interface Manual for ICAO 2012” includes a table for the translation of NEW to PRESENT for Field 10 and Field 18 information.

3.35 There are seven general areas where differences occur between the Asia/Pacific and EUROCONTROL conversions:

- Conversion of the NEW Field 10a elements E, J, M, R includes the NEW descriptor in the Field 18 COM/NAV/DAT expansions e.g. E1 is translated in Field 18 as COM/FMC WPR ACARS E1
- Addition of the RNAV specification to all PBN/A, PBN/B, PBN/D descriptions
- Addition of ‘Z’ in the Field 10a conversion for all PBN/O groups
- Different conversion of Field 10a for all the PBN/S, PBN/T groups

- Conversion of the NEW Field 10b elements E, H, L, D1, G1 includes the NEW descriptor in the Field 18 COM expansions e.g. D1 is translated in Field 18 as COM/D1
- Addition of 'D' in the Field 10b conversion for all E, B, U, V groups
- Some Field 18 STS/ indicators are converted to RMK/ plus DLE/ and ORGN/ are not converted.

3.36 A comparison of the Asia/Pacific and EUROCONTROL differences is tabled in **Appendix C** to this report.

3.37 The Conversion Table in the draft Guidance Material was updated where it was deemed necessary. The Chairman expressed about ongoing changes to the Conversion Table and that it was time to draw a line in the sand. The amended guidance material will be distributed to States and organizations for comments to be presented to APANPIRG.

Status of FAA Transition Activities for Implementation of Amendment 1 to Doc 4444, 15th Edition

3.38 United States recalled that FPL&AM/TF/2 agreed to a regional implementation strategy (Agenda Item 6), and provided an update and status on U.S. progress towards the schedule identified in the strategy.

FAA Implementation Strategy

3.39 The FAA has adopted the APAC transition strategy agreed to during FPL&AM/TF2. The transition period is 1 January 2012 through 15 November 2012. The following sections describe FAA plans and status relative to each phase.

Phase 1 (1 January to 31 March 2012) – Air Navigation Service Providers (ANSPs) Software Delivery and Internal Testing

3.40 The FAA has identified four major flight data processing systems that will require modification and has begun engineering activities to implement the changes.

3.41 En Route Automation Modernization (ERAM) – ERAM will be the primary en route system for the domestic U.S. Engineering and software changes in support of ICAO 2012 are being planned around the deployment waterfall, and cannot be implemented until all sites have completed ERAM deployment. Changes to the legacy system are not currently planned; full transition to ERAM and delivery of ICAO 2012 software is expected during 2011.

3.42 Ocean21 (O21) – O21 is the primary oceanic air traffic automation system for the U.S. and is used in oceanic airspace at Oakland, New York and Anchorage Centers. Engineering changes for O21 are being coded now for delivery during 2011.

3.43 Offshore Flight Data Processing System (OFDPS) – OFDPS provides flight data processing for Honolulu Control Facility and Guam CERAP. Engineering and software changes are planned for 2011.

3.44 FDP-2000 – FDP-2000 provides flight data processing for Anchorage Center airspace not on O21. Engineering and software changes are planned for 2011.

3.45 Several system changes will require changes in international interface control documents (ICD), notably the North Atlantic (NAT), Pacific (PAC) and North American (NAM) ICDs. The FAA:

- a) is working with NavCanada and SENEAM to effect NAM ICD changes;
- b) is working with the NAT Implementation Management Group (IMG); and
- c) would like to coordinate an effort to effect requisite changes to the PAC ICD.

Phase 2 (1 April to 30 June 2012) – ANSPs External Testing and Implementation

3.46 The FAA is working to refine a 2012 Master Test Plan that will coordinate all external testing activities. Testing will cover each ANSP with which the FAA has an automated interface.

3.47 The draft test plan currently identifies interfaces to be tested; points of contacts to coordinate test schedules/approaches are being developed.

3.48 The FAA's plan is to test between offline development systems before testing using operational systems. Initially, operational testing will be done using off-line operational systems followed by testing with live systems during periods of low traffic volume.

Phase 3 (1 July to 15 November 2012) – Airspace Users Testing and Implementation

3.49 The final phase will involve education, off-line testing, and live testing with airspace users and flight plan filing services. The FAA 2012 Master Test Plan will also coordinate these activities.

Airspace User Education Efforts

3.50 The FAA provides guidance to filers online at: www.faa.gov/ato?k=fpl. ICAO 2012 information is provided at: www.faa.gov/go/fpl2012. Materials are also available upon request to frederick.ctr.carmona@faa.gov.

3.51 The FAA plans to address meetings of the Airline Dispatcher Federation, Airplane Owners and Pilots Association, and Air Traffic Control Association.

3.52 Filers are invited to a monthly teleconference where plans are discussed, and participants are invited to bring questions and issues. Discussion of the Amendment 1 impact is ongoing.

Airspace User Testing

3.53 Prior to testing with live FAA systems, users will be provided the opportunity to submit Filed Flight Plans (FPL) and changes in NEW format to an off-line system for testing. This testing will be scheduled on a per-user basis and spread over the available time period.

3.54 The FAA is investigating the possibility of developing a website that would enable users to check the format of test NEW FPLs against the Amendment 1 rules prior to any testing with actual systems.

3.55 Upon successful completion of offline testing, approved users will be given the opportunity to file NEW format FPLs with operational systems during prescribed times at a limited number of sites.

3.56 IATA reaffirmed their offer from previous meetings that their members are willing test partners and will support States where they can.

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

Seamless Transition to the ICAO New Flight Plan Format

4.1 Japan reminded the meeting that problem would happen if States or airspace users do not comply with PANS-ATM. The transition should occur in a coordinated manner towards the applicable date. ICAO has established the guidance material for smooth transition, and urging the contracting states to transit for the NEW. We Asia/Pacific region are coordinating to establish our guidance material in order for the states to implement the NEW more smoothly.

4.2 In order for the successful transition in the region, it would be important to share implementation schedules and methodology among States. However, it is regrettable that only a few States have informed of scheduled date and implementation methodology for transition by 1 July 2010 in accordance with Conclusion 20/8. This situation would be a concern in our region.

Recommendation

4.3 All the States should recognize again that they shall apply the New Flight Plan format by 15 November 2012.

4.4 States not notifying their schedule date and implementation methodology should notify to ICAO Bangkok office as early as possible.

4.5 Even though states not having decided precise methodology yet, they should notify their target transition date and draft methodology as early as possible.

Working Paper on ICAO 2012 Flight Plan – Implementation issue to be presented to APANPIRG/21

4.6 Australia recalled that the Amendment 1 to the *Procedures for Air Navigation Services - Air Traffic Management*, Fifteenth Edition (PANS-ATM, Doc 4444) was approved by the Council on 27 May 2008 with an implementation date of 15 November 2012. Halfway along the road to implementation it is apparent that some States have already acknowledged that they will not be able to meet the implementation date while the Flight Plan Implementation Tracking System (FITS) indicates that the majority of States have not registered an implementation plan on the site.

4.7 With a requirement on air navigation service providers (ANSPs) to accept NEW and PRESENT during a transition period from 1 July 2012 to 15 November 2012 States should be in a position to advise their ability to meet the 2012 applicability date. It is appropriate at this stage to request ICAO to conduct a review into State's readiness to implement the change to NEW.

4.8 The risks involved with filing flight plans and ATS messages in PRESENT and NEW and the subsequent transmission errors which can result in the conversion process have been well publicised. The risk associated with a significant number of States being unable to implement the change to NEW on 15 November 2012 also needs to be addressed.

4.9 For the benefit of FPL&AM/TF members, Australia sought their agreement that a working paper as in **Appendix D** to this report should be presented to APANPIRG/21 seeking action from ICAO Headquarters to address these risks.

4.10 The meeting endorsed the paper and Australia will present the WP to APANPIRG/21 without change. The meeting considered the possibility that contingency plans may be required in the event States are not able to accept NEW.

4.11 USA expressed concerns that if contingency plans were required then sufficient time has to be allowed for software changes to be developed.

4.12 The Secretariat thought it was premature to talk of fall-back planning at this stage as ICAO should continue to pressure States for implementation plans.

Character Size Questionnaire

4.13 The meeting recalled that the character size questionnaire had been circulated in advance of the meeting. So far, nine responses had been received by the Regional Office. The summary of the responses is at **Appendix E** to this report.

Promotion of Coordination for Transition between Adjacent States

4.14 Japan advised the meeting that each State needs to know the transition plan of adjacent States before starting coordination for various items relating to transition. In this regard, States not notified their transition schedule and methodology to ICAO Bangkok office yet should do this as early as possible.

Coordination Items Relating to Transition

4.15 Followings are example of coordination items relating to transition between adjacent states. There would be more items in real coordination.

- i) About difference of timing for transition between adjacent states;
- ii) Operation during PRESENT and NEW are intermingled;
- iii) Operational transition for AIDC (ATS inter-facility Data Communication);
- iv) Procedures when ATS messages not processed properly; and
- v) Other items

4.16 If the case more than three FIRs are close, trilateral coordination would be needed.

Recommendation

4.17 Contracting states should start close coordination with adjacent states based on the transition plan that was notified from each state as early as possible.

Clarification of the Difference between AFTN Message Routing and the Data Handled by Automated ATM Systems

4.18 Japan advised the meeting that it was important to clearly understand that flow of AFTN messages and process of the data that is handled by automated ATM systems such as the Flight Data Processing (FDP) or the ATS Inter-Facility Data Communication (AIDC) are different.

4.19 Moreover, it would be difficult for States having various types of configuration of ATM systems to discuss detailed matter based on equal images. In this working paper, we would like to propose the use of simple diagrams in order to solve these issues as much as we can. Using these diagrams, we could have same images during our discussions or considerations of transition issues from now on.

Routing of AFTN Messages and the Flight Route of Aircraft

4.20 International flights fly through many FIRs. ATC flight plan that was submitted by airspace users should be relayed to all ATC facilities that exist in these FIRs by AFTN network. Aircraft flies FIR to FIR. However it should be noticed that ATS messages like FPL, CHG or DEP relayed through AFTN network would not always be routed like this. Sometimes AFTN messages relayed through AFTN communication center in the FIR where the flight does not fly through.

Different Configuration of Automated ATM Systems and AFTN Switch

4.21 Some states would have implemented AFTN switch and FDP separately, and others would have implemented integrated automated ATM system that includes AFTN switch, and FDP function, sometimes AIDC function as well.

Hong Kong, China

4.22 Hong Kong, China informed the meeting that the existing flight plan and flight data processing systems of Hong Kong Civil Aviation Department (CAD) were not capable of handling the NEW FPL and ATS Messages as stipulated in the PANS-ATM Doc 4444 Amendment 1. Despite CAD was already in the process of replacing our existing ATM and AIM systems to incorporate such functions, the ready-for-service date is scheduled for late 2013, i.e. beyond the above-mentioned applicability date. Therefore, an interim solution has to be provided to ensure uninterrupted processing and distribution of flight plans and ATS messages in their new formats starting from November 2012 until full operations of our replacement ATC systems. This paper will describe the strategy and implementation of the transition plan.

Strategy

Front End Processors

4.23 Currently, the Hong Kong ATM system utilizes Aeronautical Information Database (AIDB) and Flight Data Processing (FDPS) systems to manage and process flight plan and ATS messages data. To enable the processing of mixed format messages by the existing AIDB and FDPS after 2012, two Front End Processors (FEPs) will be deployed to recognise and convert NEW FPL and ATS MSG to PRESENT format. PRESENT format messages will bypass the FEP and processed by the existing systems as per present practice.

4.24 The AIDB performs AIS functions and also processes and distributes outbound flight plans. One FEP(AIDB) will be developed to check all outbound flight plans submitted by airline operators and on recognizing the NEW format flight plan and ATS messages, it will automatically convert them to PRESENT format before distributing them to the AIDB and further downstream ANSPs which only accept PRESENT format.

4.25 The FDPS processes all inbound and overflight flight plans and also the data of all flights operating within the entire Hong Kong FIR. The data are used for radar code/callsign correlation, flight progress strips printing, etc. Another discrete FEP(FDPS) will be developed to

convert all NEW format flight plan and ATS messages so received to the PRESENT format before sending them to the FDPS.

Conversion of NEW Flight Plan Items 10 and 18 to PRESENT Format

4.26 The conversion table utilised by the FEP(AIDB) to convert NEW Items 10 and 18 to PRESENT format is generally based on the guidelines stipulated by ICAO “Guidance for implementation of flight plan information to support Amendment 1 of the Procedures for Air Navigation Services-Air Traffic Management, Fifteenth Edition (PANS-ATM Doc 4444)”. However, CAD will also adopt conversion rules stipulated by the “Asia/Pacific Guidance Material for Implementation of Amendment 1 to the 15th Edition of the Procedures for Air Navigation Services-Air Traffic Management (PANS-ATM, Doc 4444)” drafted by the FPL&AM Task Force in converting some of the NEW items to PRESENT format to minimise data loss. The Items are as follows:

- E1 E2 E3 (ACARS category)
- R (PBN capability)
- B1 B2 U1 U2 V1 V2 (ADS-B category)

4.27 Information provided under NEW Item 18 indicators which do not exist in the PRESENT format would be inserted in free text after a PRESENT Item 18 indicator, such as NAV/, COM/ and RMK/, thus eliminating a rejection by ANSP that can only accept flight plans in PRESENT format.

4.28 Since the FDPS also processes flight data to be used internally for radar display, procedure evaluation and traffic statistics analysis, etc, a separate conversion table which is customized for local requirements and procedures will be used by the FEP(FDPS).

Date of Flight

4.29 Hong Kong FEPs will therefore be designed to hold flight plans received more than 24 hours before Estimated Off Block Time (EOBT) until the time as specified in the system parameter between 0 and 150 hours from EOBT. It is anticipated the system parameter will be set to 24 hours as default value, with a desired maximum value of 150 hours to allow for flexibility.

4.30 Related ATS messages such as CHG, DLA and CNL for flights beyond 24 hours will be processed by the FEP but the modified flight plan would be held in abeyance to avoid confusion to the system that may still be handling active flights of the day having the same identification. When the system parameter has reached e.g. 24 hrs prior to EOBT, the flight plan will then be dispatched to the back end systems and downstream ANSPs.

Implementation Plan

4.31 A timeline has been drawn up to meet the target dates of the Asia/Pacific regional transition plan, i.e. the three phase approach with transition period commencing 1 January 2012 and ending 15 November 2012. The three phases is described as below:-

- Phase 1 - 1 January to 31 March 2012 - FEP(AIDB) and FEP(FDPS) delivery and internal testing;
- Phase 2 - 1 April to 30 June 2012 - External testing with other ANSPs and announcement of the capability to accept NEW format; and
- Phase 3 - 1 July to 15 November 2012 - Testing with airspace users and implementation.

4.32 Safety assessment on this project was conducted in April 2010. Based on the results, technology control measures had been duly incorporated into the system specifications. Other relevant mitigating measures have been identified and will be implemented accordingly to ensure that the new system functions and implementation will achieve the required level of safety.

4.33 These two FEPs should be ready for test in mid 2011. Preliminary review on procedures is on-going and fine-tuning of the procedures would be carried out closer to the time of system testing and implementation. Sufficient time should be allowed for problem identification and rectification before April 2012.

4.34 Moreover, adequate training will be provided to flight data operators in mid 2012. Comments so collected from operational staff during training sessions will be reviewed for further improving the system functions and workflow.

4.35 Due to the large number of new flight data and equipment codes introduced by Amendment 1 to PANS-ATM, Doc 4444, phraseologies of these data to be used during controller-to-controller and controller-to-pilot communications should be coordinated among ANSPs, aircraft operators and flight planning services to effect precise communications. An Aeronautical Information Circular (AIC) will be published in time to highlight the changes and issues of concern. ATC staff should also be thoroughly briefed.

4.36 As for other regions, there is no deadline published by ICAO for contracting States to notify their implementation date. It could therefore be at a very late stage when certain States declare non-compliance affecting a smooth global transition. Nevertheless, it is encouraging to learn that an "ICAO New Flight Plan Format Study Group" has been established in the Middle East region and the first meeting was held in Cairo, Egypt in February 2010.

4.37 In addition to the readiness of ANSPs, Hong Kong, China has concerns over a view that airlines would file PRESENT flight plans until the last day of the transition period. The subsequent switching over to NEW flight plan format on the same day by all airlines with insufficient testing may pose a high risk of serious and widespread coordination problem on that day. This problem might induce interruption of flight data availability to ATC, with airline operators eventually suffering from long ground delay.

4.38 Hong Kong, China would have no problem in meeting the target dates of the phased transition plan adopted by the FPL&AM Task Force with a tentative transition date on 30 June 2012. Hong Kong, China would continue to provide support to the Task Force and keep track of the regional progress with a view to contributing to a harmonised implementation among ANSPs and airspace users. The Chairman congratulated Hong Kong, China on the thoroughness of their planning covering training, safety assessment and controller-controller, controller-pilot phraseologies.

New Zealand

4.39 New Zealand reported that Airways was aiming to have all software changes completed by the 17 November 2011 AIRAC allowing the New Zealand implementation to occur in three phases:

- Phase 1 – internal testing until 31 March 2012
- Phase 2 – external testing from 1 April 2012 until 30 June 2012 (with adjacent ANSPs and airspace users)

- Phase 3 – staggered migration of airspace users to the NEW format commencing 26 July 2012 AIRAC
- NEW only from 15 November 2012

4.40 Throughout the three phase implementation process, the domestic (SkyLine) and oceanic (OCS) ATM systems will accept both NEW and PRESENT formats.

4.41 If an adjacent FIR has not transitioned to NEW the oceanic ATM system will convert NEW Item 10 and 18 data in AIDC messages to PRESENT.

4.42 In Phase 3 airspace users will be invited to implement the NEW format. A staggered implementation is anticipated with the Airways Internet Flight Information Service website (IFIS) being modified to accept NEW (only) from 26 July 2012 AIRAC.

Converted Flight Plan and AIDC

Legitimacy of Converted FPL

4.43 The Implementation Strategy instructs that the State which has already commenced accepting NEW is supposed to send a converted* (degraded) FPL adopting the common conversion table to other States which have not yet, when a NEW FPL should be handled.

4.44 Although a converted FPL is not the original one, it should be legitimately utilized for ATS or ATC operation. Legitimacy of converted FPL should be particularly corroborated in a plenary meeting.

*converted: ref. ATTACHMENT to State letter AN 13/2.1 09/09

Guidance for implementation of flight plan information to support Amendment 1 of the *Procedures for Air Navigation Services — Air Traffic Management*, Fifteenth Edition (PANS-ATM, DOC 4444)

7. CONVERSION OF NEW ITEMS 10 and 18 TO PRESENT ITEMS 10 and 18

“It is strongly recommended that all ANSPs utilize the table below to convert NEW Items 10 and 18 to the PRESENT for coordination with adjacent ANSPs which only accept PRESENT.”

Possible Lack of Consistency

4.45 Some States seem to handle AIDC (ATS inter-facility Data Communication) messages through AFTN as other ATS messages. On the other hand, some States such as Japan handle AIDC as a kind of ATC boundary information transfers through the dedicated leased lines, besides other ATS messages are handled through AFTN.

4.46 ATS messages through AFTN (e.g. FPL, CHG) must not be altered when it should be relayed to other States. Only AIDC messages may be allowed to be altered regarding them as boundary information for ATC purpose.

4.47 If a flight goes through three FIRs and only the second FIR has not yet commenced accepting NEW, it might be possible that the third FIR has a NEW flight plan format through AFTN and a PRESENT flight plan format (CPL) through AIDC at the same time.

4.48 Concerning legitimacy, it may be a probable opinion that both of flight plans from AFTN and AIDC are equally legitimate even if some differences are existed.

4.49 Another idea might be that the FPL messages which are obtained through AFTN should be always legitimate because AIDC messages could be converted.

4.50 Or it might be possible that NEW FPL should be legitimate whenever a State has a NEW FPL and a PRESENT FPL for a single flight at the same time.

4.51 In the case of States which handle AIDC through AFTN, the matter of consistency might be different and should be considered otherwise.

AIDC

4.52 ATS messages through AFTN should be handled in a consistent strategy, but the manners for AIDC in the Transition Period should be individually determined between concerning States. JCAB is starting to coordinate about the issue with the adjacent States.

4.53 Japan suggested that the conversion from NEW to PRESENT would result in three flight plan formats (NEW, PRESENT and CONVERTED) and indicated the lack of consistency in the CONVERTED plan. Also the possibility of duplicated entries in the conversion of similar PBN groups (e.g. B3B4B5 converting to NAV/RNAV5 RNAV5 RNAV5) highlighted an omission in the Guidance Material. The Guidance Material was updated to avoid such duplication.

Comments on Draft Asia/Pacific Guidance Material

4.54 Japan presented comments to the draft Asia/Pacific Guidance Material. The comments included some typing errors (supposed), and considerations about the treatment of “S” in field 10a, and points out lack of some elements on Table 6-1.

Supposed Typing Errors

- (p.2) 3.1 4th line “indentify” → “identify” ?
- (p.5) the 1st dot “SO” → “OD” ?
- (p.5) the 2nd dot “C5” no definition on Amendment1
- (p.12) 7.3 a) “D”(DME) is valid in both PRESENT and NEW.
- (p.12) 7.4 a) “A”, “B”, “P8” and “P9” are also used only in NEW.
- (p.13) 7.4 b) “O1” → “D1” ?
- (p.13) 7.4 “ORGN/” and “DOF/” are also used only in NEW.
(“DOF/” seems to be used in PRESENT sometimes.)

Changed Definition of “S” in field 10a

4.55 Paragraph 5.4 on p.4 as follows:

- “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.”

4.56 The meeting noted that by adopting this, “S” would mean “VOL” in both PRESENT and NEW after 1 April 2012. In this condition, the row “SF”(NEW) → “S”(PRESENT) in Table 6-1 would not be appropriate.

Conversion Table

4.57 The conversion table (Table 6-1) seemed to need modification as follows:

- Not only “RNAV2”, “RNAV1” and “RNAV5” should be described in “NAV”.
- “Z” should be described in field 10a when “RNAV” and/or “RNP” is in item18.
- “R” must be described for RNP certification.
- “P” should not be needed, because “P” is reserved for RCP.
- Unification to “RZ” for all RNAV and/or RNP would be simple and useful.

NEW		PRESENT	
Field 10a	Item 18	Field 10a	Item 18
R	PBN/A1	RZ	NAV/RNP10
R	PBN/B1	R RZ	NAV/RNAV5
R	PBN/B2	R RZ	NAV/RNAV5
R	PBN/B3	R RZ	NAV/RNAV5
R	PBN/B4	R RZ	NAV/RNAV5
R	PBN/B5	R RZ	NAV/RNAV5
R	PBN/B6	R RZ	NAV/RNAV5
R	PBN/C1	RZ	NAV/RNAV2
R	PBN/C2	RZ	NAV/RNAV2
R	PBN/C3	RZ	NAV/RNAV2
R	PBN/C4	RZ	NAV/RNAV2
R	PBN/D1	PR RZ	NAV/RNAV1
R	PBN/D2	PR RZ	NAV/RNAV1
R	PBN/D3	PR RZ	NAV/RNAV1
R	PBN/D4	PR RZ	NAV/RNAV1
R	PBN/L1	RZ	NAV/RNP4
R	PBN/O1	PR RZ	NAV/RNP1
R	PBN/O2	PR RZ	NAV/RNP1
R	PBN/O3	PR RZ	NAV/RNP1
R	PBN/O4	PR RZ	NAV/RNP1

4.58 The meeting reviewed the Asia/Pacific Guidance Material and update as required.

ICAO Flight Plan and ATS Messages Implementation Australia Safety Management Activities

4.59 Australia informed the meeting that Australian Civil Aviation Safety Authority (CASA) certifies Airservices Australia to provide Air Traffic Control (ATC) services in accordance with Australian Civil Aviation Safety Regulation (CASR) Part 172. The equipment used by ATC is separately authorised under CASR Part 171. Each CASR is accompanied by a Manual of Standards (MOS) which contains the standards required of the holder of the certification.

4.60 Under the CASRs, Airservices is required to operate a Safety Management System (SMS) approved by CASA.

4.61 Airservices is required to prepare safety documents that support the change process, these are currently (the process is under review):

- Safety Plan – Describing what actions are planned in order to produce either of the two undermentioned documents;
- Safety Case – Advice to CASA and the accountable Airservices managers arguing that the safety of a change is of an acceptable level and providing the required evidence to support the argument;
- Safety Assessment Report – Identical to a Safety Case but not delivered to CASA (see below)

4.62 Normally a Safety Case is only prepared for CASA if the change will affect either of the CASRs under which Airservices is certified, however CASA may request a Safety Case on any change as they see fit.

4.63 In this case, the changes to Flight Plans and ATS Messages required by ICAO, CASA is requiring Airservices to produce a Safety Case.

4.64 Airservices manages changes through a project system which determines what is to be changed and includes such things as resourcing and costing. A full suite of documents appropriate to project management will be produced in accordance with the Airservices Standard Project Management Methodology manual.

4.65 As a first step, a Project Manager is appointed and the Safety and Environment Group - Project Services, appoints a Project Safety Specialist (PSS) to assist the Project Manager with the safety issues in the project.

4.66 In order to produce the safety case covering the implementation of the ICAO changes the following activities will take place.

4.67 The first task undertaken by the PSS will be to convene a panel of ATC and technical specialists, associated with the change, to make a determination of the risk associated with the project and a Preliminary Hazard Assessment (PHA). The details of the panel's deliberations will be recorded on a form called a SCARD (Safety Case Assessment and Recording Determination). After completion the SCARD will be sent the Safety & Environment Group's Regulatory Compliance division to alert them to what we are doing and the details of the project.

4.68 The PSS will then go on to write a Safety Plan which will detail the actions that will be undertaken by the Project to ensure that all Airservices responsibilities are properly discharged. The Safety Plan is reviewed by peer specialists in Project Services before being sent for review and approval by the managers accountable for safety in the areas affected by the change.

4.69 The project will then undertake the activities listed in the plan, such as Hazard Identification workshops, consultation with airlines and other aircraft operators, consultation with internal sections such as Legal Council, and Facilities Management and discussions with external service providers such as the Defence Department and contractors.

4.70 At the same time preparation of the Safety Case begins and continues while project work is ongoing. Guidelines for how to prepare a Safety Case are published by CASA.

4.71 Airservices has found that it is best practise to include a PSS early in the project cycle and let the document develop as the projects proceeds. Such things as meeting minutes and the results of hazard identification sessions and technical testing can then be incorporated and safety arguments refined as an ongoing task instead of having to be written from stored information later in the Project.

4.72 When the PM is satisfied with the Safety Case, it will be reviewed by peers in the Project Services section to ensure standards are being met and reviewed for technical and ATC content by specialists from the Operational and Technical Integrity section.

4.73 As happened with the Safety Plan the Safety Case is then sent to the managers accountable for the safety of the change such as the Chief Engineer associated with change and his ATC equivalent, the Chief Operating Authority. Approval will then be sought from the two General Managers involved, Technical and Asset Services, and Air Traffic Control before the document goes to the General Manager (GM), Safety and Environmental Services, for endorsement and delivery to CASA.

4.74 Australia informed the meeting that changes that require a Safety Case to be submitted to CASA could not proceed until CASA has advised the GM, Safety and Environment that the arguments and evidence it contains are satisfactory.

4.75 The meeting believed it worthwhile for Australia to provide an ongoing update with the progress of safety work as detailed above for the purpose of assisting other States.

4.76 The Secretariat reminded the meeting of the safety assessment requirement in Annex 11 para 2.27.5 and advised that ICAO expects States to perform safety assessments applicable to their respective implementations.

AIDC Messages Change Considerations

4.77 The meeting was informed that recent work undertaken by the Informal South Pacific Coordination Group for integration and update to their respective NAM and APAC AIDC Interface Control Documents (ICD) had identified possible changes were required to incorporate contents of Amendment 1 to PANS-ATM for 2012. Results of discussion within this group deemed it was of benefit to bring the subject to the attention of the Asia Pacific ICAO Task Force so that;

- a. There was a greater general awareness of any issues surrounding AIDC format and content due to the changes, and

- b. Any future issues that are encountered can be managed in a timely manner that does incur undue delay to documentation/software and operational change.

4.78 In regard to AIDC Coordination type message class between ANSPs, several of the fields used are changed by the amendment and will potentially affect the interface. The ICD includes the fields by reference to the PANS-ATM, so while there will be a minimal change to the ICD in this area there are potentially significant impacts to the interfaces. A summary of the relevant changes is as follows:

4.78.1 Items 7, 8, 13, and 16- clarifications and editorial changes that are unlikely to affect the interface.

4.78.2 Item 10- substantive changes to equipment and capabilities field. Any message that includes Item 10 will be affected.

4.78.3 Item 15- change to allow a significant point to be represented by a bearing and distance from a 2-5 character fix.

4.78.4 Item 18- substantive changes that include new indicators (e.g. PBN/) and changes to information associated with an indicator (e.g. DAT/).

4.79 The following table identifies field changes required to be cohesive with Amendment 1 to the PANS ATM.

MSG	Decode	Contains Field	Field Affected
ABI	Advanced Boundary Information	3,7,13,14,16,22	22 Includes 15 and optional 10,18
CPL	Current Flight Plan	3,7,8,9,10,13,14,15,16,18	10,15,18
EST	Coordination Estimate	3,7,13,14,16	Nil
MAC	Coordination Cancel	3,7,13,16,22	22 includes 18
PAC	Preactivation	3,7,13,14,16,22	22 optional 10, 15, 18
CDN	Coordination	3,7,13,16,22	22 includes 10, 15,18
ACP	Acceptance	3,7,13,16	Nil
REJ	Rejection	3,7,13,16	Nil
TRU	Track Update	3,7,13,16	Nil

Date of Flight

4.80 A PAC message, being preactivation before a flight is airborne, may require linking to a flight plan with a DOF element. In this case, PAC could be linked to the correct flight plan via a Field 22 amendment containing Field 18 DOF/.

4.81 Another possible exception is when an ABI is received before or when no DEP message has activated the Flight Plan.

4.82 States need to be aware of their individual circumstances and system requirements in regard to whether Date Of flight Information needs to be included in appropriate AIDC messages. This can be managed by individual bilateral agreements between States affected.

4.83 The meeting discussed the requirements for DOF and it was recognised that, until States begin and test implementation software, the need for DOF was unknown at this point. Because many fields are optional and may be utilised between States as required; this could mitigate the frequency of use of DOF.

Interface Transition

4.84 Each AIDC interface during Phase 3 could potentially see a mixture of NEW and PRESENT flight data—at least during test periods and potentially during operations if both sides agree.

4.85 It is important that the ANSPs involved in each interface coordinate a plan for testing the interface, and for operations in Phase 3 when some filers can be potentially filing NEW and others PRESENT. It is possible to design systems to maintain operational messages in PRESENT format regardless of what format was filed, or to transmit AIDC messages using the format in which the flight plan was received.

4.86 Presence of both NEW and PRESENT flight data on each interface also implies that the receiving system will be able to recognize which format a flight plan is in. Further updates to the Guidance Material have been made to improve identification of either format.

4.87 The meeting took note of the information and requested to report any findings as a result of discussion so that the Special Implementation Project (SIP) on ATS Inter-Facility Data Communication AIDC Implementation Seminar may be informed.

India

4.88 India noted that 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 were 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.

4.89 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.

Implementation of the Amendment

4.90 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.

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

- a) Allow filing of flight plans up to 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.

Field Length in Item 10

4.92 The system developers had raised 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.

Date of Flight (DOF) Issues

4.93 At the second meeting of the Task Force, India sought clarification whether only one FPL could be submitted with respect a particular flight at a time which could be up to 120 hours in advance or airlines/operator are allowed to file more than one FPLs up to 120 hours before EOBT with 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

4.94 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/.

4.95 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.

4.96 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

4.97 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:

4.98 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 exists in this case about DOF to be used in the delay message: DOF/100817 or DOF/100818.

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

4.99 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.

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

The Asia/Pacific Transition Plan

4.101 India strongly recommended global harmonization in implementation, as it involves coordination with States in adjacent regions also. India noted 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.

4.102 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.

4.103 The meeting discussed the issues raised by India:

- Item 10 Field Length – the possibility of the combined length of Fields 9, 10a, 10b exceeding the 69 character limitation for a line in an AFTN message. The Chairman will raise this with ICAO HQ as an issue for the FITS website
- Use of DOF:
The meeting came to consensus in regard to this issue with the result that a CHG message containing an amendment to DOF will update the DOF submitted in the original flight plan. The updated DOF is the date referenced in subsequent DLA messages. Explanation and examples will be added to the Guidance Material.

4.104 India also speculated how many CPDLC indicators could be filed in NEW flight plan – QANTAS advise 2.

Singapore

4.105 Singapore noted that RPLs are conventionally filed for recurring pre-planned flight operations with identical characteristics. However, the availability of improved means of exchanging aeronautical data between ANSPs such as via automated AIM (Aeronautical Information Management) System coupled with an increase in the number of budget airlines operations, have resulted in and / or contributed to several FPLs and RPLs being received simultaneously by the ANSPs.

4.106 Identical FPLs are received from different sources - Besides receiving FPL from the ATS Reporting Office, identical FPL is also received directly from the airline operator (AO). Additionally, States with automatic flight plan management systems are also sending out RPLs as FPLs based on the filed EOBT. These not only load the communication channels used between the ATS units but also raised the question of which is the acceptable or approved source for FPL.

4.107 FPLs for the same flight and its associated ATS update messages are received from different sources and with different contents - ANSPs are faced with the task to match the ATS update messages to the source of the FPL. This not only unnecessarily increases the workload of the ANSPs but also confuses the ANSPs.

4.108 The current ICAO RPL format does not have a specific field to specify the communications, navigation and surveillance equipment carried and aircraft capabilities, similar to Item 10 of an FPL - AOs are currently only declaring an abbreviated set in Item O of the ICAO RPL form. Following the new ICAO FPL format, it is imperative to provide a dedicated field in the RPL form to specify the communications, navigation and surveillance equipment carried and aircraft capabilities.

4.109 Absence of aircraft registration data from the aerodrome of departure - AOs and flight dispatchers are not consistent in following through to update their aircraft registration. This data is essential for ANSPs' administrative and operational processes such as for ADS / CPDLC operations to Airworthiness matters as well as the need for safety monitoring on RVSM and RNP / RNAV operations.

4.110 Advance submission of RPL list followed by automatic transmission of RPL as FPL on the day of operations - This increases the number of duplicate flight plans received, thereby increasing the volume and complication in handling FPLs by ANSPs.

4.111 IATA contributed to a discussion regarding multiple flight plan submission and pointed out that many operators had to either auto file or file manually depending on individual State requirements. IATA was asked to provide an information paper to the next Task Force meeting so that further exploration of this issue could be undertaken.

4.112 The Chairman will raise the issue of an Equipment Field in the RPL Form with ICAO.

Review of the Draft Asia/Pacific Guidance Material

4.113 Based on the inputs and comments provided to the meeting during the two day discussion, the meeting updated the draft Asia/Pacific Guidance Material. The Task Force members were invited to review the draft again and make comments, if necessary, to the Secretariat by 31 August for the draft guidance material to be submitted to APANPIRIR/21 in early September 2010. Comments were received from Australia, Hong Kong China and the Philippines. The draft Guidance Material was updated as in **Appendix F** to this report, which will be presented at APANPIRG/21 in September for their adoption.

Agenda Item 5: Regional strategies for implementation

Thales Update

5.1 Australia presented information, on behalf of Thales, in regard to development of international systems for supporting the Amendment 1 transition.

5.2 The information in **Appendix G** to this report is presented for the express intention of updating the Task Force of work undertaken for the successful transition in 2012.

5.3 All comments in the Appendix G are made by Thales and are not necessarily representative of the position, views or opinion of Airservices Australia.

5.4 States requiring more information were encouraged to contact Thales directly.

5.5 Australia relayed to the meeting that Thales had some difficulty with the published phased transition, in particular, the three month period in Phase 1 for software delivery and testing was too short a period to be able to deliver to the eight or nine States that require vendor support.

5.6 Based on the advice from Thales that software supporting Amendment 1 changes could be integrated into Thales systems and be disabled until the correct implementation date, the meeting accepted the recommendation from Australia that there be no restriction for an earlier software delivery than proscribed in the Phase 1 of the regional transition strategy.

Update of FITS by Present States

5.7 Taking the opportunity of this meeting, the States were invited to update FITS particularly on the Contact Person and the Implementation Date of NEW. Accordingly, FITS was updated. During the update, China, India, Lao PDR, Malaysia, Maldives, Mongolia, Nepal, Pakistan, Philippines, Singapore and Thailand provided only the Point of Contact or nothing, however, agreed that the information including the Implementation Date would be provided to the Regional Office for the FITS update as soon as possible but not later than 22 October 2010 as agreed by ATM/AIS/SAR/SG/20.

Agenda Item 6: Review and update FPL&AM/TF Task List

6.1 The meeting reviewed the Task List. The meeting agreed that the Task List shown as **Appendix H** to this report appropriately represents the current work programme of the Task Force.

Agenda Item 7: Any other business

7.1 The meeting did not identify any other business for discussion.

Agenda Item 8: Date and venue for the next FPL&AM/TF meeting

8.1 The meeting considered that it was important that the Task Force keep momentum to proceed with the NEW FPL implementation. Recognising the need to draw a wide spread interests among aircraft operators and reinforce the implementation planning by States, the Secretariat suggested the next meeting and a two- or three-day workshop/seminar be held outside of the Regional Office, and invited States to host the meeting and workshop/seminar. The meeting and the seminar/workshop is tentatively scheduled from 21 to 25 March 2011 (place to be determined).

Closing of the Meeting

9.1 While closing the meeting, Mr. Douglas summarised many positive outcomes that had been achieved. Although this was only two-day meeting, a number of papers had been submitted by States that demonstrated active work programmes aimed at implementing the new flight plan and ATS message provisions. Mr. Douglas noted the overriding concern expressed throughout the meeting about the lack of information from States of their Implementation Plans and the need for ICAO to be proactive in obtaining and reviewing this information. He thanked the meeting for the excellent work in compiling the draft Asia/Pacific Guidance Material, which will be presented to APANPIRG/21 in September 2010.

9.2 Mr. Harano thanked Mr. Douglas for his taking up the chairmanship and his hard work for the meeting.

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List of Participants

	Name	Title/Organization	TEL/FAX/E-MAIL
1.	AUSTRALIA (2)		
	1. Mr. Richard Stevens	Senior ATS Specialist Airservices Australia Locked Bag 747 Eagle Farm 4077 Australia	Tel: +61-7-3866 3313 Fax: +61-7-3866 3833 E-mail: richard.stevens@airservicesaustralia.com
	2. Mr. Roy Tuomela	AIS Specialist Civil Aviation Safety Authority GPO Box 2005 Canberra ACT 2601 Australia	Tel: +61-2-6217 1421 Fax: +61-2-6217 1500 E-mail: roy.tuomela@casa.gov.au
2.	CAMBODIA (1)		
	3. Mr. Khorn Vannak	ATS Training and Planning Supervisor State Secretariat of Civil Aviation CATS Building, Opposite Phnom Penh International Airport Phnom Penh Cambodia	Tel: +855-15-771 166 Fax: +855-23-890 214 E-mail: vannakk@cats.com.kh
3.	CHINA (1)		
	4. Mr. Kang Nan	Assistant of ATC Department Air Traffic Management Bureau, CAAC No. 12 Zhonglu, Third Ring Road East Chaoyang District, Beijing 100022 People's Republic of China	Tel/Fax: +86-10-87788610 E-mail: kangnan@atmb.net.cn

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	Name	Title/Organization	TEL/FAX/E-MAIL
4.	HONG KONG, CHINA (6)		
5.	Ms. Angela Suk-yee Lee	Project Officer Civil Aviation Department 3/F, Dragonair House, 11 Tung Fai Road Hong Kong International Airport Hong Kong, China	Tel: +852 2591 5121 Fax: +852 2845 7160 E-mail: asylee@cad.gov.hk;
6.	Mr. Dennis Kam-wah Chan	Electronics Engineer Civil Aviation Department 3/F, Dragonair House, 11 Tung Fai Road Hong Kong International Airport Hong Kong, China	Tel: +852 2591 5032 Fax: +852 2845 7160 E-mail: dkwchan@cad.gov.hk
7.	Ms. Cherry Wah-tin Chan	Technical Support Officer Civil Aviation Department 3/F, Dragonair House, 11 Tung Fai Road Hong Kong International Airport Hong Kong, China	Tel: +852 2591 5039 Fax: +852 2845 7160 E-mail: cwtchan@cad.gov.hk
8.	Ms. Teresa Wing-yee Tam	Technical Support Officer Civil Aviation Department 3/F, Dragonair House, 11 Tung Fai Road Hong Kong International Airport Hong Kong, China	Tel: +852 2591 5337 Fax: +852 2845 7160 E-mail: twytam@cad.gov.hk
9.	Mr. Peter Chun-tung Wong	Operations Officer Civil Aviation Department ATMD, 4th Floor, Air Traffic Control Complex Hong Kong International Airport Lantau Hong Kong, China	Tel: +852 2910 6462 Fax: +852 2910 0186 E-mail: pctwong@cad.gov.hk

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	Name	Title/Organization	TEL/FAX/E-MAIL
10.	Ms. Camy Yue-ching Tsang	Air Traffic Flight Service Officer I Civil Aviation Department ATMD, 4th Floor, Air Traffic Control Complex Hong Kong International Airport Hong Kong, China	Tel: +852 2910 0117 Fax: +852 2910 1177 E-mail: cyetsang3@gmail.com;
5.	INDIA (3)		
11.	Mr. Ved Prakash	Deputy Director of Operations Directorate General of Civil Aviation DGCA Complex, Technical Centre Opposite Safdarjung Airport New Delhi 110003 India	Tel: +91-11-24628922 Fax: +91-11-24628922 E-mail: vedprakash.dgca@nic.in
12.	Mr. Satyajit Dutta	Jt. General Manager (ATM) Airports Authority of India Rajiv Gandhi Bhavan Safdarjung Airport New Delhi 110003 India	Tel: +91 11 2465 8450 Fax: +91 11 2464 5606 E-mail: satyajitdutta1@rediffmail.com sdutta@aai.aero
13.	Mr. C. Ravishankar	Senior Manager (CNS) Airports Authority of India Rajiv Gandhi Bhavan Safdarjung Airport New Delhi 110003 India	Tel: +91 11 2463 2950 ext 2311 Fax: +91 11 2469 3963 E-mail: cravishankar@aai.aero

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	Name	Title/Organization	TEL/FAX/E-MAIL
6.	JAPAN (2)		
	14. Mr. Katsuhisa Midorikawa	Special Assistant to the Director ATC Data Systems Office Japan Civil Aviation Bureau Ministry of Land, Infrastructure, Transport and Tourism 2-1-3, Kasumigaseki, Chiyoda-ku Tokyo 100-8918 Japan	Tel: +81-3-5253 8747 Fax: +81-3-5253 1664 E-mail: midorikawa-k07pk@mlit.go.jp
	15. Mr. Masamichi Mizutamari	Special Assistant to the Director Operation and Flight Inspection Division Japan Civil Aviation Bureau Ministry of Land, Infrastructure, Transport and Tourism 2-1-3, Kasumigaseki, Chiyoda-ku Tokyo 100-8918 Japan	Tel: +81-3-5253 8751 Fax: +81-3-5253 1664 E-mail: mizutamari-m22h@mlit.go.jp
7.	LAO PDR (2)		
	16. Mr. Manasavanh Kounlath	Deputy Director of ATSC Lao Air Traffic Management P.O. Box 2985 Vientiane Lao PDR	Tel: +856-21-512006 ext 207 Fax: +856-21-512216 E-mail: manas998@yahoo.com
	17. Mr. Khamtay Duangsongkham	Chief AIS Vientiane Int'l NOTAM Office Lao Air Traffic Management P.O. Box 2985 Vientiane Lao PDR	Tel: +856-21-512008 ext 216 Fax: +856-21-512008 E-mail: duangsongkham@yahoo.com

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	Name	Title/Organization	TEL/FAX/E-MAIL
8.	MALAYSIA (1)		
	18. Mr. Azham Ahmad	Assistant Director Department of Civil Aviation KL International Airport 6400 KLIA Malaysia	Tel: +603-8787 4118 Fax: +603-8926 5989 E-mail: azham@dca.gov.my
9.	MALDIVES (2)		
	19. Mr. Ishag Abdulla	ATS Engineer Maldives Airports Company Limited Male International Airport Hulhule 22000 Republic of Maldives	Tel: +960-795 7235 Fax: +960-333 1515 E-mail: ishag@maclnet.net
	20. Ms. Fathimath Samiya	Manager AIS Maldives Airports Company Limited Male International Airport Hulhule 22000 Republic of Maldives	Tel: +960-794 5222 Fax: +960-333 1515 E-mail: samiya@maclnet.net
10.	MONGOLIA (2)		
	21. Mr. Yondon Erdenebat	Officer Civil Aviation Authority of Mongolia Buyant-Ukhaa, MCAA Ulaanbaatar-34 Mongolia	Tel: +976-11-282011 E-mail: yo_erdenebat@mcaa.gov.mn
	22. Mr. Ulemj Davaa	AIS Manager Civil Aviation Authority of Mongolia Chinggis Khaan Int'l Airport Mongolia	Tel: +976-11-283130 Fax: +976-11-313157 E-mail: ulemj@mcaa.gov.mn

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	Name	Title/Organization	TEL/FAX/E-MAIL
11.	NEPAL (1)		
	23. Mr. Bharat Prasad Sharma	Manager Civil Aviation Authority of Nepal Head Office Babar Mahal Kathmandu	Tel: +977-1-4218513 Fax: +977-1-4262516 E-mail: sharmabp@wlink.com.np
12.	NEW ZEALAND (1)		
	24. Mr. Stuart Douglas	Senior ATS Systems Specialist Airways Corporation of New Zealand Ltd. P. O. Box 14-131 Christchurch New Zealand	Tel: +64-3-358 1629 Fax: +64-3-358 2790 E-mail: stu.douglas@airways.co.nz
13.	PAKISTAN (1)		
	25. Mr. John William	Senior Air Traffic Controller Pakistan Civil Aviation Authority Headquarters Terminal-I Jinnah International Airport Karachi 75200	Tel: +021-34575649, +03232568511 E-mail: jvrjohn1966@gmail.com
14.	PHILIPPINES (2)		
	26. Mr. Charlemagne P. Gilo	Assistant Chief Airways Communicator Civil Aviation Authority of the Philippines 4 th Floor, CAAP Building Air Traffic Service MIA Road, Pasay City Philippines	Tel: +632-879-9159 Fax: +632-879-259 E-mail: cpgilo@yahoo.com Charlemagne.gilo@gmail.com

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	Name	Title/Organization	TEL/FAX/E-MAIL
	27. Mr. Necias I. Dayap	Chief Airways Communicator Civil Aviation Authority of the Philippines 4 th Floor, CAAP Building Air Traffic Service MIA Road, Pasay City Philippines	Tel: +632-879-9282 Fax: +632-879-9259 E-mail: necias50@yahoo.com
15.	REPUBLIC OF KOREA (3)		
	28. Mr. Hong Sungmin	Assistant Director ATM Division Ministry of Land, Transport and Maritime Affairs 1-8, Byeoryang-dong Gwacheon-si, Gyeonggi-do 427-040 Republic of Korea	Tel: +82-2-2669-6434 Fax: +82-2-6342-7289 E-mail: smhong01@korea.kr
	29. Mr. Jung, Hyung Hoon	ATC Education Assistant Incheon ACC P.O. Box 26 Incheon Airport Joong-gu, Incheon 400-340 Republic of Korea	Tel: +82-32-880 0235 Fax: +82-32-889 2381 E-mail: wolfholic@korea.kr
	30. Mr. Lee Yong Kil	Senior Manager Incheon International Airport Corporation 2850 Unseo-dong, Jung-gu Incheon 400-700 Republic of Korea	Tel: +82-32-741 2768 Fax: +82-32-741 2700 E-mail: wind99@airport.kr

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	Name	Title/Organization	TEL/FAX/E-MAIL
16.	SINGAPORE (3)		
	31. Ms. Wong Liang Fen	Chief, Aeronautical Information Services Aeronautical Information Services Civil Aviation Authority of Singapore Singapore Changi Airport Singapore 918141	Tel: +65-6595 6051 Fax: +65-6543 1826 E-mail: wong_liang_fen@caas.gov.sg
	32. Mr. Jeffrey Loke Chee Yong	Senior Air Traffic Control Manager (ATM) Air Traffic Services Division Civil Aviation Authority of Singapore Singapore Changi Airport P.O. Box 1 Singapore 918141	Tel: +65-6595 6063 Fax: +65-6545 6516 E-mail: jeff_loke@caas.gov.sg
	33. Mr. Rengaraju Sundraraj	Chief Flight Services (CFS) Civil Aviation Authority of Singapore 60 Biggin Hill Singapore 509950	Tel: +65-65412433 Fax: +65-65456252 E-mail: r_sundraraj@caas.gov.sg
17.	THAILAND (9)		
	34. Mr. Yoottakarn Niewpant	Air Traffic Control Specialist Airport Standards Bureau Department of Civil Aviation Tungmahamek Bangkok 10120, Thailand	Tel: +66-2-2870320 ext 1399 Fax: +66-2-286 8159 E-mail: niewpant@aviation.go.th
	35. Capt. Silpin H.Dhamma	Manager, Flight Operations Document Control Department Flight Operations Department Thai Airways International Public Company Limited 89 Vibhavadi Rangsit Rd Bangkok 10900, Thailand	Tel: +66-2-545 2987 Fax: +66-2-545 3901 E-mail: silpin.h@thaiairways.com

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	Name	Title/Organization	TEL/FAX/E-MAIL
36.	Mr. Danai Emphandhu	Manager, Dispatch Services Department Thai Airways International Public Company Limited BKKOW 4 th Floor OPC Building Suvarnabhumi International Airport Thailand	Tel: +66-2-137 1732 Fax: +66-2-137 1736 E-mail: danai.e@thairways.com
37.	Mr. Bunpot Kujaphun	General Administrative Manager Aeronautical Radio of Thailand Ltd 102 Ngamduplee Thungmahamek, Sathorn Bangkok 10120, Thailand	Tel: +66-2-285 9847 Tel: +66-2-285 9848 E-mail: bunpot.ku@aerorhai.co.th
38.	Mrs. Jittima Asawachaiporn	General Administrative Manager Aeronautical Radio of Thailand Ltd 102 Ngamduplee Thungmahamek, Sathorn Bangkok 10120, Thailand	Tel: +66-2-285 9082 Fax: +66-2-287 8538 E-mail: jittima.as@aerorhai.co.th Tima14@aerorhai.co.th
39.	Mr. Pakdee Dangkanan	Chief of Flight Dispatch Bangkok Airways Co., Ltd. 2 nd Floor, Bangkok Air Operations Complex 2 999 Mu 4 Bangna-Trad Rd. Bangchalong, Bangplee Samuthprakarn 10540, Thailand	Tel: +66-2-328 3314 Fax: +66-2-328 3319 E-mail: pakdee@bangkokair.com
40.	Mr. Kritsana Padungpant	Assistant Dispatch Manager Nok Airlines Company Limited Donmuang Airport, Room No. 3635 Fl.3 Seekan, Donmuang Bangkok 10210, Thailand	Tel: +66-2-627 2684 Fax: +66-2-535 6339 E-mail: kritsana.pad@nokair.com

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	Name	Title/Organization	TEL/FAX/E-MAIL
41.	Mr. Wiwat Jomkamsing	Flight Dispatcher Supervisor Orient-Thai Airlines Co., Ltd. 222 Room 3602 Donmuang Int'l Airport Domestic Terminal, Vipavadee-Rungsit Rd Srikan, Donmuang Bangkok, 10210, Thailand	Tel: +66-087-709 0753 Fax: +66-2-504 3227 E-mail: wiwat.j@orient-thai.com
42.	Mr. Widodo Djoko Prasetyo	Flight Engineer B747 Orient-Thai Airlines Co., Ltd. 222 Room 3602 Donmuang Int'l Airport Domestic Terminal, Vipavadee-Rungsit Rd Srikan, Donmuang Bangkok, 10210, Thailand	Tel: +66-086-985 5571 Fax: +66-2-504 3227 E-mail: widododp@yahoo.com qa_ftops1@orient-thai.com
18.	UNITED STATES (1)		
43.	Mr. Ray Ahlberg	En Route and Oceanic Services Technical Performance Support Group Federal Aviation Administration Washington, D.C. U.S.A.	Tel: +1-202-385 8290 E-mail: ray.ahlberg@faa.gov
19.	IATA (5)		
44.	Mr. Geoff Housell	Assistant Director Safety, Operations & Infrastructure International Air Transport Association Regional Office - Safety, Operations & Infrastructure (Asia/Pacific) 111 Somerset Road, #14-05 Somerset Wing Singapore Power Building Singapore 238164	Tel: +65 64992253 Fax: +65 62339286 e-mail: housellg@iata.org

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	Name	Title/Organization	TEL/FAX/E-MAIL
45.	Mr. Owen Dell	Manager International Operations Cathay Pacific Airways Ltd. International Operations 9/F Central Tower, Cathay Pacific City 8 Scenic Road Hong Kong International Airport Hong Kong, China	Tel: +852-2747 8829 Fax: +852-2141 8829 E-mail: owen_dell@cathaypacific.com
46.	Mr. Julian Fung	Assistant Manager Route Development Cathay Pacific Airways Ltd. International Operations Cathay Pacific City 8 Scenic Road Hong Kong International Airport Hong Kong, China	Tel: +852-2747 3818 Fax: +852-2141 3818 E-mail: julian_fung@cathaypacific.com
47.	Mr. Graham Rennie	Principle Advisor Global Operations Development Qantas Airways Building C/5 203 Coward St. Mascot 2020 NSW Australia	Tel: +61-2-9691 1157 e-mail: grennie@qantas.com.au
48.	Mr. Michael Carter	Systems Administrator, Flight Dispatch Systems Support Qantas Airways Ltd. Building C/5 203 Coward St. Mascot 2020 NSW Australia	Tel: +61-2-9691 1280 Fax: +61-2-9691 1807 e-mail: michaelcarter@qantas.com.au

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	Name	Title/Organization	TEL/FAX/E-MAIL
20.	IFATCA (1)		
	49. Mr. John Wagstaff	IFATCA ASP Representative c/o ATMD/CAD, ATCX Hong Kong International Airport Hong Kong, China	Tel: +852-2910 6453 Fax: +852-2910 0186 E-mail: john.wags@gmail.com
21.	ICAO		
	50. Mr. Kyotaro Harano	Regional Officer, ATM ICAO Asia & Pacific Office 252/1 Vibhavadi Rangsit Road Ladyao, Chatuchak Bangkok 10900 Thailand	Tel: 66-2-5378189 ext 159 Fax: 66-2-5378199 E-mail: kharano@bangkok.icao.int

LIST OF WORKING PAPERS (WPs) AND INFORMATION PAPERS (IPs)

WORKING PAPERS

NUMBER	AGENDA	WORKING PAPERS	PRESENTED BY
WP/1	1	Provisional Agenda	Secretariat
WP/2	2	Review Report of ATM/AIS/SAR/SG/20	Secretariat
WP/3	4	Seamless Transition to the ICAO New Flight Plan Format	Japan
WP/4	4	Promotion of Coordination for Transition between adjacent States	Japan
WP/5	4	Clarification of the Difference between AFTN Message Routing and the Data handled by Automated ATM Systems	Japan
WP/6	4	Asia/Pacific Regional Guidance Material Conversion from New Format to Present Format	New Zealand
WP/7	7	Task List for the FPL&AM Task Force	Secretariat
WP/8	4	Implementation Plan of New ICAO Flight Plan and ATS Messages in Hong Kong, China	Hong Kong, China
WP/9	3	Differences between Asia Pacific FPL&AM/TF/2 Guidance Material, and FAA and EUROCONTROL Coding Guidance	United States
WP/10	4	Converted Flight Plan and AIDC	Japan
WP/11	4	Status of implementation in India	India
WP/12	4	Administrative and Operational Challenges of Processing ICAO Filed Flight Plan (FPL) and Repetitive Flight Plan (RPL)	Singapore

INFORMATION PAPERS

NUMBER	AGENDA	INFORMATION PAPERS	PRESENTED BY
IP/1	-	List of Working Papers (WPs) and Information Papers (IPs)	Secretariat
IP/2	4	Terms of Reference of FPL&AM/TF	Secretariat
IP/3	4	Amendment 1 to 15 th Edition of PANS-ATM	Secretariat
IP/4	4	ICAO Guidance Material Supporting Amended Flight Plan Procedures	Secretariat
IP/5	4	Draft Transition Plan	New Zealand
IP/6	3	Items of Interest from other Regional Task Forces Implementing Amendment 1 to PANS-ATM, Doc 4444, 15 th Edition	United States
IP/7	3	Status of FAA Transition Activities for Implementation of Amendment 1 to Doc 4444, 15 th Edition	United States

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NUMBER	AGENDA	INFORMATION PAPERS	PRESENTED BY
IP/8	4	ICAO Flight Plan and ATS Messages Implementation Australian Safety Management Activities	Australia
IP/9	4	AIDC Message Change Considerations	Australia New Zealand United States
IP/10	5	Thales Update	Australia
IP/11	3	Asia/Pacific Guidance Material for the Implementation of Amendment 1 to the 15 th Edition of the <i>Procedures For Air Navigation Services – Air Traffic Management (PANS-ATM, DOC 4444)</i>	Secretariat
IP/12	4	Working Paper on ICAO 2012 Flight Plan – Implementation Issues to be presented to APANPIRG/21	Australia

FLIMSY

NUMBER	AGENDA	INFORMATION PAPERS	PRESENTED BY
1	4	Comments for APAC Guidance Material Draft	Japan

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'NEW' Data Content		ASIA/PACIFIC Conversion to 'OLD'		CFMU Interface Manual Conversion to "OLD"	
Item 10a	Item 18	Item 10a	Item 18	Item 10a	Item 18
E1		Z	COM/FMC WPR ACARS	Z	COM/FMC WPR ACARS E1
E2		Z	COM/DFIS ACARS	Z	COM/DFIS ACARS E2
E3		Z	COM/PDC ACARS	Z	COM/PDC ACARS E3
J1		J	DAT/V	J	DAT/V COM/J1
J2		J	DAT/H	J	DAT/H COM/J2
J3		J	DAT/V	J	DAT/V COM/J3
J4		J	DAT/V	J	DAT/V COM/J4
J5		J	DAT/S	J	DAT/S COM/J5
J6		J	DAT/S	J	DAT/S COM/J6
J7		J	DAT/S	J	DAT/S COM/J7
M1		Z	COM/INMARSAT	Z	COM/INMARSAT M1
M2		Z	COM/MTSAT	Z	COM/MTSAT M2
M3		Z	COM/IRIDIUM	Z	COM/IRIDIUM M3
R	PBN/A1	RZ	NAV/RNP10	RZ	NAV/ RNAV10 RNP10 A1
R	PBN/B1	R		R	NAV/RNAV5 B1
R	PBN/B2	R		R	NAV/RNAV5 B2
R	PBN/B3	R		R	NAV/RNAV5 B3
R	PBN/B4	R		R	NAV/RNAV5 B4
R	PBN/B5	R		R	NAV/RNAV5 B5
R	PBN/B6	R		R	NAV/RNAV5 B6
R	PBN/C1	RZ	NAV/RNAV2	RZ	NAV/RNAV2 C1
R	PBN/C2	RZ	NAV/RNAV2	RZ	NAV/RNAV2 C2
R	PBN/C3	RZ	NAV/RNAV2	RZ	NAV/RNAV2 C3
R	PBN/C4	RZ	NAV/RNAV2	RZ	NAV/RNAV2 C4
R	PBN/D1	PR		PR	NAV/RNAV1 D1
R	PBN/D2	PR		PR	NAV/RNAV1 D2
R	PBN/D3	PR		PR	NAV/RNAV1 D3

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'NEW' Data Content		ASIA/PACIFIC Conversion to 'OLD'		CFMU Interface Manual Conversion to "OLD"	
Item 10a	Item 18	Item 10a	Item 18	Item 10a	Item 18
R	PBN/D4	PR		PR	NAV/RNAV1 D4
R	PBN/L1	RZ	NAV/RNP4	RZ	NAV/RNP4 L1
R	PBN/O1	PR	NAV/RNP1	PRZ	NAV/RNP1 O1
R	PBN/O2	PR	NAV/RNP1	PRZ	NAV/RNP1 O2
R	PBN/O3	PR	NAV/RNP1	PRZ	NAV/RNP1 O3
R	PBN/O4	PR	NAV/RNP1	PRZ	NAV/RNP1 O4
R	PBN/S1	RZ	NAV/RNP APCH	GZ	NAV/RNP APRCH S1
R	PBN/S2	RZ	NAV/RNP APCH BARO VNAV	GZ	NAV/RNP APRCH BARO VNAV S2
R	PBN/T1	RZ	NAV/AR APCH RF	GZ	NAV/RNP AR APRCH RF T1
R	PBN/T2	RZ	NAV/AR APCH	GZ	NAV/RNP AR APRCH T2

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'NEW' Data Content		ASIA/PACIFIC Converts to following 'PRESENT' Data Content		CFMU Interface Manual Conversion to 'OLD'	
Item 10b	Item 18	Item 10b	Item 18	Item 10b	Item 18
E		S		SD	COM/E
H		S		S	COM/H
L		SD		SD	COM/L
B1			COM/B1	D	COM/B1
B2			COM/B2	D	COM/B2
U1			COM/U1	D	COM/U1
U2			COM/U2	D	COM/U2
V1			COM/V1	D	COM/V1
V2			COM/V2	D	COM/V2
D1		D		D	COM/D1
G1		D		D	COM/G1

'NEW' Data Content	Asia/Pacific Conversion to 'PRESENT'	CFMU Interface Manual – to be output when 'OLD' required
Item 18	Item 18	Item 18
STS/	STS/copy text over <ul style="list-style-type: none"> Except change "ATFMX" to "ATFMEXEMPTAPPROVED" 	RMK/ALTRV STS/ATFMEXEMPTAPPROVED RMK/FFR RMK/FLTCK RMK/HAZMAT STS/HEAD STS/HOSP STS/HUM RMK/MARSA RMK/MEDEVAC STS/NONRVSM STS/SAR STS/STATE
DLE/	RMK/DLE <text after DLE/>	Not output.
ORGN/	RMK/ORGN	Not output.



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**TWENTY FIRST MEETING OF THE
ASIA/PACIFIC AIR NAVIGATION PLANNING AND
IMPLEMENTATION REGIONAL GROUP (APANPIRG/21)**

Bangkok, Thailand, 6-10 September 2010

Agenda Item 3: Regional Air Navigation Planning and Implementation issues
3.2 ATM/AIS/SAR

ICAO 2012 FLIGHT PLAN – IMPLEMENTATION ISSUES

(Presented by Australia)

SUMMARY

Amendment 1 to the *Procedures for Air Navigation Services - Air Traffic Management*, Fifteenth Edition (PANS-ATM, Doc 4444) introduces an amended flight plan form and new flight planning procedures. The updated ICAO model flight plan form is intended to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management (ATM) systems. The applicability date of the new ICAO Flight Plan Format is 15 November 2012. This paper discusses risks resulting from State's varying levels of preparedness for implementation of the changes.

Action by APANPIRG/21 is contained in paragraph 3.

1. INTRODUCTION

1.1 The current ICAO model flight plan form is universally adopted and implemented by States. PRESENT is defined as the present flight planning and ATS message formats as defined in the current version of the PANS-ATM. NEW is defined as the flight planning and ATS message formats as specified in Amendment 1 to the PANS-ATM.

1.2 Amendment 1 to the PANS-ATM contains changes to the length and content of items. The changes to content are as follows:

- Change the way aircraft equipage and capabilities are communicated to provide more details;
- Provide additional means of describing route way points (specifically bearing and distance from points other than navigation aids); and
- Permit specification of the date of flight in a standardised manner.

2. DISCUSSION

2.1 State Letter AN 13/2.1-09/9 6 February 2009 - Guidance for implementation of flight plan information to support Amendment 1 of the *Procedures for Air Navigation Services — Air Traffic Management*, Fifteenth Edition (PANS-ATM, DOC 4444) advised States that the Flight Plan changes have considerable consequences on ANSP flight data processing systems that check and accept flight plans and related messages, use flight plan data in displays for controller reference, use data in ANSP automation and which support communication between ANSPs as the flight progresses. Preparation for the changes should therefore be made well in advance of the applicable date. The changes also have consequences for airspace users. If a flight plan with new content is sent to an ANSP that has not prepared to accept the new content then it is likely that some information will be lost, misinterpreted or cause a rejection of the flight plan.

2.2 Additionally, State Letter AN 13/2.1-09/9 states that “to allow performance case considerations to drive individual airspace user and ANSP implementation schedules, the ATM system will need to simultaneously support both PRESENT and NEW for a period of time.” However, from 15 November 2012, ANSPs are not required to accept and process PRESENT and airspace users are expected to file NEW as using PRESENT is not assured.

2.3 At FPL&AM/TF/2 a number of risks associated with implementation were identified during development of the region’s implementation strategy. These risks are summarised as follows:

- a) IATA advised that in order to ensure compliance by States the changes to the flight plan format should be issued as SARPs to ensure uniform application by all States as it is necessary in the interests of safety or regularity of international air navigation. Amendment 1 to PANS-ATM 4.4.1.3 still only advises operators and ATS units that they *should* comply with the instructions for completion of the flight plan form. With the almost total reliance placed on FPL and ATS message formats in today’s automated ATM systems, IATA firmly believes the FPL format should be adopted as a standard.
- b) At the first meeting of the European FPL TF in Sep 09, NATS UK and AENA Spain announced they would not be capable of accepting the NEW format in 2012 with NATS expecting late 2013/early 2014 and AENA indicating early 2013. Additionally, on the ICAO Flight Plan Implementation Tracking System (FITS) located at <http://www2.icao.int/en/FITS/Pages/home.aspx> it is apparent that there is a great majority of States that are still only evaluating their current systems with no update regarding implementation. This is a concern as the implementation date is a little over two years away and given the number of ANSP system changes required, including the number of dependent systems reliant on accepting flight plan data, planning should be at a very advanced stage.
- c) State Letter AN 13/2.1-09/9 provides a conversion table for flight plan data from NEW to PRESENT however no conversion from PRESENT to NEW is available. Therefore if an aircraft transits FIRs which alternately support NEW, PRESENT and NEW data will be irretrievably lost.
- d) If there is no universal adoption by States of the NEW flight plan format there is a possibility that airspace users will not be prepared to adopt the changes as there would be a requirement to update their flight planning systems to allow filing of flight plans in two formats in circumstances where a region or ANSP only supports NEW or PRESENT.

2.4 There is a significant financial investment to be made by States and airspace users to implement the 2012 ICAO Flight Plan. States require a level of certainty to be provided through ICAO’s PANS and SARPs that the changes to be implemented are going to be adopted by all States and airspace users.

2.5 The issue of the integrity of flight planning data is a very real one in circumstances where flight plans need to be converted from NEW to PRESENT and vice versa. The fact that flight planning information can be lost, misinterpreted or rejected is a major safety risk to ANSPs.

2.6 Under State Letter AN 13/2.1-09/9 ICAO has an expectation that all States and airspace users will be ready to implement the change to NEW on 15 November 2012. The State Letter does not provide for circumstances of ANSPs and airspace users on a large scale not being ready or able to accept, process or file NEW. ICAO needs to provide guidance to States beyond 15 November 2012 if the implementation of NEW is in any way compromised by inability of States or airspace users to comply.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the readiness of all States, including those outside the Asia/Pacific Region, in implementing the 2012 ICAO Flight Plan as recorded in the FITS;
- b) request that ICAO HQ urge States to provide updates on implementation status and provide confirmation they will be ready to implement the new ICAO Flight Plan on 15 November 2012;
- c) request that ICAO HQ conduct a review of States preparedness to implement the new ICAO Flight Plan on 15 November 2012; and
- d) request that ICAO HQ provide timely guidance to States in the event that a significant number of States indicate that they will be unable to implement the new ICAO Flight Plan on 15 November 2012.

FPL&AM/TF/3
Appendix E to the Report

	Australia	Cambodia	Hong Kong	India AFTN	India FDP	Japan	Korea	Malaysia	Mongolia	Nepal	NZ Domestic ATM	NZ Oceanic ATM	Pakistan	Philippines Manila ACC	Philippines CADAS	Singapore	Thailand	USA Domestic FDP	USA Anchorage Centre	USA Honolulu Control Facility	USA Oceanic Centres
15c size	750	225	600	3000	900		1500	1000	1600 including 15a/b			512	no	225		750	no	990	599		1500
15c nr of elements	90				150								no			115				48	255
18 total size	250 not including REG	640	1000		900	600	1500	1350	1800		1024	no	90			250 (not including REG)	250			600	1800
EET								500	1800							250			3000	70	
RIF								500	1800										3000	300	
REG	10				10	7		20	1800		8					10			3000	7	7
SEL					4			4	1800							4			3000	8	4
OPR						3		50	1800										3000	19	
STS								80	1800										3000	19	
TYP								60	1800										3000	19	
PER					4			1	1800										3000	19	
COM								50	1800		11								3000	19	
DAT					4	5		50	1800		4								3000	9	
NAV								50	1800										3000	19	
DEP								50	1800		30								3000	19	
DEST								50	1800		30								3000	19	
ALTN								50	1800		30								3000	19	
RALT								100	1800										3000	19	
CODE	6				6			6	n/a							6			6	6	6
RMK								500	1800										3000	600	
any other limits	see comment			Field 9: 11 characters		1800 max including 15c, 18, 19	each Field 18 element has no limitation	DOF 6	DOF 6 RVR/RFP 1800	see comment	1500 for combined 15c and 18			see comment	see comment		see comment	see comment	see comment	see comment	see comment

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 0.2 – 21 August 2010

Issued by ICAO Asia and Pacific 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). 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 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.

4.8 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., “OD” or “SD” must appear in 10a);
- If B1, B5 or C1 is filed, an “I” must be included in Field 10a; and
- If C1, C4, D1, D4, O1 or O4 is filed, a “D” and an “I” must be included in Field 10a (i.e., “DI” 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

Indicator	Contents
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
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. 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 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 “Item 18” NEW columns and convert it to the information in both the “Field 10a” and “Item 18” in PRESENT columns. If text is to be inserted in Field 10 or Field 18 as per the Table 6-1, and 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)
SF		SF	(refer para 5.4)
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

'NEW' Data Content		Conversion to 'PRESENT' Data Content	
Field 10a	Item 18	Field 10a	Item 18
J6		J	DAT/S
J7		J	DAT/S
K		K	
L		L	
M1		Z	COM/INMARSAT
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	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
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

'NEW' Data Content		Conversion to 'PRESENT' Data Content	
Field 10a	Item 18	Field 10a	Item 18
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

6.3 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	

'NEW' Data Content		Conversion to 'PRESENT' Data Content	
Field 10b	Item 18	Field 10b	Item 18
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

6.4 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"

'NEW' Data Content	Conversion to 'PRESENT' Data Content
Item 18	Item 18
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/	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.	

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 that it can accept the NEW format, assume the filed Flight Plan is in PRESENT format if any of the following is filed:

- a) In Field 10a if the Qualifier E,J, M, P or Q is filed without an associated numeric;
- b) In Field 10b if the Qualifier D is filed;

- c) In Item 18 an entry used for STS/ is not in the allowed list for NEW; or
- d) In Item 18 an entry used for PER/ is more than a single letter.

7.4 Once an ANSP has announced it can accept NEW format, assume the filed Flight Plan is in NEW format if any of the following is filed:

- 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 the qualifiers in paragraphs 7.3 and 7.4 above co-exist in the same Flight Plan, the format is inconsistent and therefore should be rejected by automation to ‘error queue’ for 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 –

Appendix A

Adopted by Conclusion 20/7 of APANPIRG/20 (September 2009)

ASIA/PACIFIC REGION INTERIM STRATEGY FOR THE IMPLEMENTATION OF NEW ICAO FLIGHT PLAN FORMAT AND SUPPORTING ATS MESSAGES

Recognizing that:

- 1) Dynamic information management will assemble the best possible integrated picture of the historical, real-time and planned or foreseen future state of the ATM situation and provide the basis for improved decision making by all ATM community members;
- 2) 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;
- 3) 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;
- 4) 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; and
- 5) The complexities inherent in automated computer systems preclude the adoption of a single regional transition date and transitions to the new flight plan provisions will therefore occur throughout the declared transition period. Accordingly, pursuit/adoption of a single 'global' implementation date is also not viable.

The Asia/Pacific implementation of Amendment 1 to the PANS-ATM shall:

- 1) Ensure that all States and airspace users implement the full provisions of Amendment 1 from 15 November 2012, not just selected aspects of the Amendment;
- 2) Acknowledge that States not implementing the full provisions of Amendment 1 from 15 November 2012 are obligated to publish the non compliance in State AIP as a 'significant difference' well in advance of the 15 November 2012 applicability date 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) Eliminate or 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 July 2011 until 15 November 2012, and encourage States to implement 'NEW' capability between 1 July 2011 and 1 July 2012;
- 6) Not implement 'NEW' capability by States or users before the commencement of the transition period (i.e. no 'NEW' before 1 July 2011);
- 7) Encourage States to immediately commence preparations to implement Amendment 1 provisions and report progress to the FPL&AM/TF periodic meetings;
- 8) Require States to inform the Regional Office of scheduled transition date by 1 July 2010 for relay to the FPL&AM/TF;
- 9) Consider a regional constraint on requiring acceptance of flight plans more than 24 hours prior to Estimated Off Blocks Time (EOBT) during the transition period, to mitigate Date Of Flight (DOF) complexities;

- 10) 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;
- 11) Encourage users to implement capability to simultaneously support 'PRESENT' and 'NEW' provisions from activation of their 'NEW' capabilities until the end of the transition period;
- 12) Recognize that until a number of adjacent States are providing 'NEW' capability, advantages do not accrue to users. Accordingly, users may not commence transition until the latter part of the transition period; and
- 13) Avail of States with expertise in automated ATM ground systems to support the conduct of a Regional Office Seminar during November 2009.

(last amended FPL&AM/TF/1, March 2009)

Appendix B

Amendment proposed by FPL&AM/TF/2 (November 2009)
for consideration by APANPIRG/21 (September 2010)

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.)

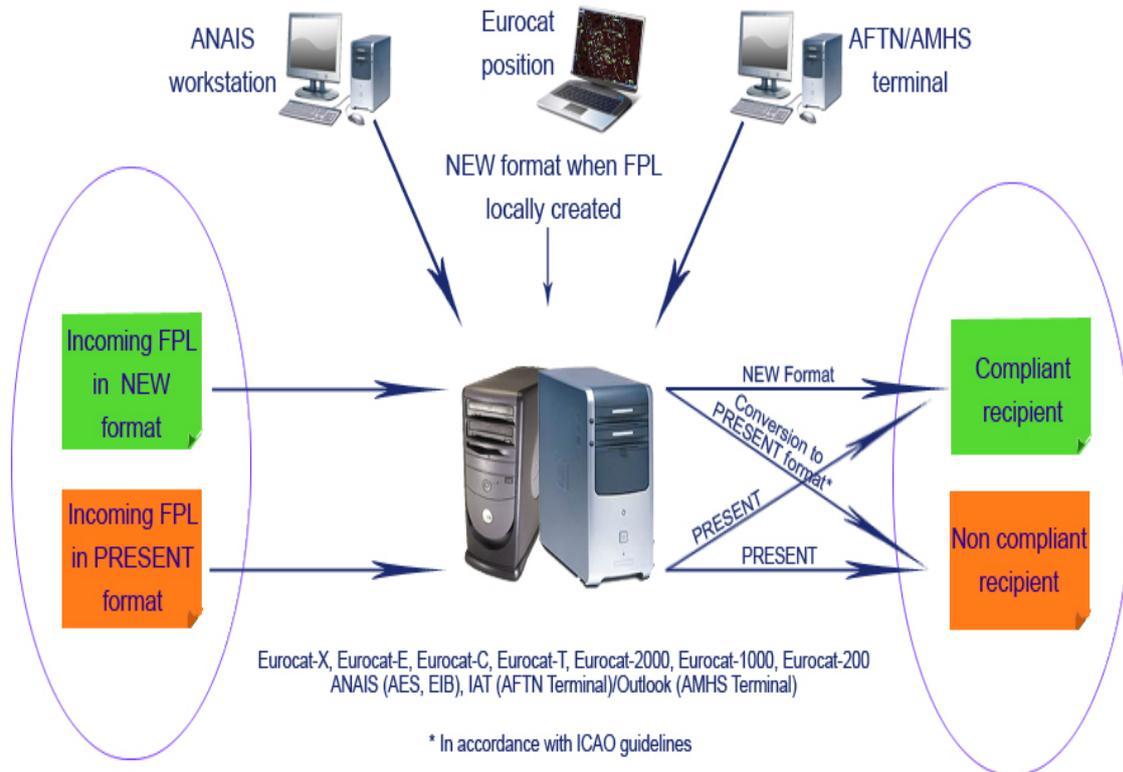
The Asia/Pacific transition to the PANS-ATM Amendment 1 provisions shall:

- 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)

General description: Impact on Thales Air systems Portfolio



Example: Impact on the Eurocat-X product

- Implementation based on the upgrade and transition of the existing Eurocat-X system to incorporate:
 - Syntactic and Semantic checking,
 - DOF functionality,
 - PBN switching,
 - FPCF processing,
 - Transition implementation.
- Flexible implementation
 - NEW or CURRENT FPL format sent according to the receiver capability status
 - Can be implemented **anytime** before the applicability date without jeopardizing the daily operation

Industrial scenario

- ICAO 4444 changes have been developed and partially implemented on Eurocat-X product baseline
- Waiting for final guidance from ICAO to finalize the development

- Due to inherent flexibility of the software upgrade, strong recommendation for:
 - ANSPs to receive & internally test software in 2011
 - Conduct external tests in first half 2012 and then
 - Test ANSP/airspace interaction in 3Q 2012 to achieve harmonized applicability by 15 November 2012 as mandated by ICAO

Implementation should be done according ICAO guideline

- Changes have considerable consequence to all ANSP & user systems in the area of:
 - Item/field contents for FPLs & related messages
 - Performance Based Navigation (PBN) information
 - Filing an FPL more than 24 hours in advance
 -
- Partial implementation limited to NEW/CURRENT format convertor :
 - will increase the manual workload of flight operators
 - will result in lost information (converting from NEW to PRESENT)
 - will result in non-harmonized implementations
 - may lead to global inconsistencies
 - will not provide the full services expected by Airlines
 - may lead to safety consequences (discrepancies, irrelevant information)

FPL&AM/TF/3
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FPL&AM TF - TASK LIST

(last amended FPL&AM/TF 1, ~~March 2009~~ 3, August 2010)

ID	Task Name	Start Date	Finish Date	Completion Date	Resource Names/Remarks
1.0	PANS-ATM				
1.1	Review of Amendment 1 to PANS-ATM	17 Mar 09	17 Mar 09		
1.2	Clarification request to ICAO headquarters				
1.3	IATA to study the eligibility in the equipment listing of Item 10 – only file parameters that relate to flight to destination and alternate destination				IATA
1.4	Study the sequencing in the Item 10				
1.5	IATA to study whether the 16 character limitation in PBN/ in Item 18 is sufficient				IATA
1.6	Study on the suitability of deriving regional character limitations in other fields and sub-field				
1.7	State survey of local peculiarities including the DOF use	<u>Q1 2012</u>			
1.8	RPL management – include equipment field				
2.0	Regional Transition Strategies				
2.1	Review of the “guidance for implementation of flight plan information to support Amendment 1”	17 Mar 09	17 Mar 09		
2.2	Preparation of coordinated Asia/Pacific transition strategies and plans	<u>17 Mar 09</u>	<u>17 Mar 09</u>		
2.3	Adoption of the Strategy by APANPIRG	<u>11 Sep 09</u>	<u>11 Sep 09</u>		
2.4	IATA to inform TF/2 about details of transition arrangements				
2.5	Regional Office to relay details of IATA transition arrangements				
3.0	AIDC				
3.1	Identification of impact on AIDC operations				
3.2	Update of AIDC ICD				

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ID	Task Name	Start Date	Finish Date	Completion Date	Resource Names/Remarks
4.0	Contingency Planning				
4.1	Preparation of contingency strategies	<u>Q1 2012</u>			
5.0	Website				
5.1	Update information on State capability PRESENT/NEW status in the ICAO website	<u>1 Jul 11</u>	<u>Ongoing</u>		
6.0	AIS				
6.1	Publication of AIC				
6.2	Amendment of AIP, if necessary				
6.3	Trigger NOTAM				
7.0	Studies of Operational Impact				
7.1	Study on implications for presentation formats including the electronic flight progress strip.				
7.2	Study on impacts to users (flight planning systems, etc)				
8.0	Regional Supplementary Procedures				
8.1	Amendment of SUPPS				
9.0	Performance Framework Form (PFF)				
9.1	Review and update of the PFF	17 Mar 09	<u>Ongoing</u>		
10.0	Perform System Verifications				
10.2	Conduct of the flight plan trial, support from IATA				
10.3	Identify problems and solutions				
10.4	Follow-up actions				
11.0	Rulemaking (if necessary)				
11.1	Review of State regulatory documentation				
11.2	Review of letters of agreement				
12.0	Training/Education				
12.1	Regional Seminar				United States
12.2	Promulgate information to controllers and AIS				
12.3	Training for dispatchers/pilots/controllers				
13.0	Implementation				
13.1	Adaptation of automation and software to NEW				

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ID	Task Name	Start Date	Finish Date	Completion Date	Resource Names/Remarks
13.2	Post-adaptation verification				
13.3	Ensure no local peculiarities or deviations in the Regions				
13.4	State to notify ICAO of the implementation of NEW				
13.5	Keeping PRESENT until 15 November 2012				
14.0	Post-implementation				
14.1	Ceasing PRESENT	16 Nov 09			
14.2	Review of the post-implementation status				
15.0	Coordination				
15.1	Election of the Chairperson				
15.2	Coordinate with ATN ICG				
15.3	Liaison by ANSPs with defence authorities				
15.4	Report to ATM/AIS/SAR/SG/19				
15.5	Report to CNS/MET/SG/13				
15.6	Report to APANPIRG/20				
15.7	Task Force/1	17 Mar 09	20 Mar 09		
15.8	Seminar and Task Force/2	10 Nov 09			
15.9	Task Force/3				