



International Civil Aviation Organization

**The First Meeting of the APANPIRG ATM Sub-Group  
(ATM /SG/1)**

Bangkok, Thailand, 20 – 24 May 2013

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**Agenda Item 4: ATM Systems (Modernization, Seamless ATM, CNS, ATFM**

**PROPOSALS AND COMMENTS FOR THE DRAFT SEAMLESS ATM PLAN**

(Presented by Japan)

**SUMMARY**

This paper presents principles in developing the draft Seamless ATM Plan, and proposals and comments for the Plan V 0.8d.

This paper relates to –

**Strategic Objectives:**

A: *Safety – Enhance global civil aviation safety*

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

**Global Plan Initiatives:**

All GPIs

**1. INTRODUCTION**

1.1 ICAO sent the draft Seamless ATM Plan V 0.8b for comments to the APSAPG registered members on 29 March 2013, which was updated based on the discussion at APSAPG/3 in January 2013. Japan reviewed the draft, and sent its proposals and comments to ICAO. Then, V0.8d is presented with small updates from V0.8b.

1.2 Japan's intention of submitting comments was to be reviewed and discussed among States. Therefore, this paper was developed to promote discussion at ATM/SG/1 and provide comments to APSAPG/4.

**2. DISCUSSION**

2.1 Japan's proposals and comments on the Plan V 0.8d are in the attachment. Several proposals which would be related to ATM/SG are as follows:

- 2.1.1 1.9 As an iterative process, the Plan requires regular updating to keep current with changes in technology, ~~political considerations~~ and human performance. It is intended that APANPIRG and its contributory bodies conduct a complete review every three years (or a shorter period determined by APANPIRG) of the Plan to align with the review cycle of the GANP. The Plan and its subsequent revisions should be endorsed by APANPIRG.

**(Reasons for deletion)** “Political considerations” is beyond the work of APANPIRG and its contributory bodies. Therefore, it is unable to be properly reviewed by these frameworks.

- 2.1.2 2.9 The PARS and PASL are preferably available ~~expected to be implemented~~ in two phases, Phase I ~~on 12 November~~ from 2015 and Phase II from 2020 ~~on 08 November 2018~~. Phase II was determined by referencing the charting AIRAC (Aeronautical Information Regulation and Control) cycle for the ASBU Block 1 commencement year. ~~Recognising the economic and environmental costs associated with delay of system improvement using technologies available today, Phase I was considered to be the earliest date possible for ASBU elements and other non ASBU elements, which mainly involved procedural changes and human training.~~

**(Reasons for changes and deletions)** It does not say in ASBU that Block 0 should be implemented by 2018 before Block 1. As for Block 1, at the AN-Conf12, it was only requested that ICAO and industry prepare necessary standardization for Block 1 by 2018.

Therefore, it is reasonable to take a few years between 2013 and Phase I which includes Block 0 modules, as well as between 2018 and Phase II which includes Block 1 modules.

Also, designating implementation dates by certain AIRAC dates is used for critical issues in which some states fail in implementation affect serious safety problems in aviation such as the case in FPL2012. It is not suitable and even makes different readers have different understandings by using AIRAC dates.

- 2.1.3 7.1-7.11 **PARS Phase I** (preferably available from 2015 ~~expected implemented by 12 November 2015~~)

**(Reasons for change)** please refer to 2.1.2 and 2.1.9

- 2.1.4 7.12-7.24 **PARS Phase II** (preferably available from 2020 ~~expected implemented by 08 November 2018~~)

**(Reasons for change)** please refer to 2.1.2 and 2.1.9

- 2.1.5 7.25-7.43 **PASL Phase I** (preferably available from 2015 ~~expected implemented by 12 November 2015~~)

**(Reasons for change)** please refer to 2.1.2 and 2.1.9

- 2.1.6 7.28 The delivery of CNS/ATM should be based on primarily on the CNS/ATM capability. Subject to Annex 11 State safety assessments, the following ATC minimum horizontal separation standards in accordance with the provisions of Doc 4444 should be applied during normal operations, including TOC points:

- a) Category R controlled airspace – not greater than **50NM**; and
- b) Category S controlled airspace – not greater than ~~10NM~~.

*Note 1: Within Category R airspace, transition to a minimum separation standard of 30NM utilising RNP 4 or not greater than 20NM utilising RNP 2 Oceanic at the earliest opportunity is recommended. HQ C/ATM through SASP to confirm the 20NM figure*

*Note 2: PBN parallel route spacing based on RNP 2, RNAV 2 or RNAV 5 may be 20NM or less, as determined by collision risk modelling.*

(**Comment**) 10NM described in b) is not based on the provisions of Doc 4444. Justification is not clear. Therefore, ICAO's interpretation and justification should be added as *Note 3*.

- 2.1.7 7.36 ATM systems should enable AIDC (version 3 or later) between ATC units where transfers of control are conducted unless alternate means of automated communication of ATM system track and flight plan data are employed (ASBU Priority 1). ~~As a minimum, the following AIDC messages types should be implemented:~~

- ~~• Advanced Boundary Information (ABI);~~
- ~~• Coordinate Estimate (EST);~~
- ~~• Acceptance (ACP);~~
- ~~• TOC; and~~
- ~~• Assumption of Control (AOC).~~

(**Reason for deletion**) Detailed usage and specifications of AIDC is a matter between adjacent facilities based on their situation. Not necessary and practicable to require all facilities in all APAC region.

- 2.1.8 7.44-7.57 *PASL Phase II* (preferably available from 2020 ~~expected implemented by 08 November 2018~~)

(**Reasons for change**) please refer to 2.1.2 and 2.1.9

- 2.1.9 9.1 Section 7 (Performance Improvement Plan) provides milestones and timelines for a number of elements in the PARS and PASL Phase I and II, which are preferably available from 2015 and 2020 respectively in order to facilitate Seamless ATM operations in the region. being effective 12 November 2015 and 09 November 2018 respectively.

- 9.2 It should be noted that the elements included in PARS and PASL cover overall ATM operations, taking into account whole phase of flight. Therefore, it is more practicable to designate timelines as "preferably available from", considering necessary preparation for implementation from both aircraft side and ground side, such as aircraft equipment and certification, safety/operational analysis and assessment, cost-effective perspective, securing budget, developing operational procedures, training, and so on.

- 2.1.10 9.5 ~~This Plan necessitates concrete a number of implementation actions, which were consolidated into recommendations in the accompanying Working Paper to this Plan, for consideration by APANPIRG. Agreed actions in the form of Conclusions and an Implementation Strategy Template (**Attachment 3**) would be followed up. It is expected that each Asia/Pacific State and administration develop a Seamless ATM Implementation Plan based on applicable parts of the Implementation Strategy Template, and implementation progress would be reported to APANPIRG.~~

The Plan provides a helpful set of guidelines that States can measure their own success and planning against. Therefore, States and administrations are encouraged to include items in the Plan in the development or implementation of their states/administration plans as appropriate.

(**Reason for change**) It is ICAO and our understanding that the Plan provides a helpful set of guidelines that States can measure their own success and planning against, so, the sentences should be replaced in line with this.

Also, Implementation Strategy Template is not attached. It is unclear the difference between Air Navigation Report Form for progress of ASBU implementation by ICAO HQs and Implementation Strategy Template, which would bring states confusion and duplicative work. Even the reporting procedures by using Air Navigation Report Form have not yet been finalized and informed. Reporting procedures should be discussed at future APANPIRG.

2.1.11 Appendix D: Asia/Pacific Performance Analysis

**(Comment)** This assessment is not present a complete picture. Also, communication specification is not in PARS/PASL. One state/administration is shown only by one table, no matter how many FIRs they have, does not also show the situation correctly.

Deletion may be better than showing incomplete information which leads misunderstanding. Need further discussion.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) discuss 2.1 as appropriate, and provide comments to APSAPG/4;
- c) provide comments to APSAPG/4 regarding proposals and comments in the attachment as necessary; and
- d) discuss any relevant matters as appropriate.

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