#### INTERNATIONAL CIVIL AVIATION ORGANIZATION



# REPORT OF THE NINTH MEETING OF THE ICAO AERONAUTICAL INFORMATION SERVICES – AERONAUTICAL INFORMATION MANAGEMENT IMPLEMENTATION TASK FORCE (AAITF/9)

PATTAYA, THAILAND, 24 – 27 JUNE 2014

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

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#### INTRODUCTION

#### Meeting

1.1 The Ninth Meeting of the Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/9) was held at the Discovery Beach Hotel, Pattaya, Thailand, from 24 to 27 June 2014.

#### Attendance

2.1 The seminar and meeting were attended by 67 participants from, Australia, Bangladesh, Bhutan, Cambodia, China, Macao China, Fiji, France, India, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Nepal, Singapore, Solomon Islands, Sri Lanka, Thailand, Viet Nam and USA. A list of participants is at **Appendix A** to this report.

#### Officers & Regional Office

- 3.1 Mrs. Ariungerel Purev, AIS Director, Mongolia Civil Aviation Authority, was Chairperson of the meeting.
- 3.2 Mr Shane Sumner, Regional Officer ATM and AIM, ICAO Asia and Pacific Office, was the Secretary for the meeting.

#### **Opening of the Meeting**

4.1 On behalf of Mr. Arun Mishra, Regional Director of ICAO Asia and Pacific Office, Mr. Shane Sumner welcomed participants to the meeting

#### **Election of Chair**

- 4.2 Mrs. Ariungerel Purev, AIS Director, Mongolia Civil Aviation Authority, was elected as Chairperson of AAITF.
- 4.3 The meeting acknowledged with sincere thanks the significant and lengthy leadership and contribution of the outgoing Chair Mr. Peter Hobson to the work of the Task Force, in advancing Aeronautical Information Services and the transition towards Aeronautical Information Management in the Asia/Pacific Region.

#### **Documentation and Working Language**

5.1 The working language of the meeting and all documentation was English. There were 10 working papers and 10 information papers considered by the meeting. A list of papers is included at **Appendix B** to this report.

#### **Draft Conclusions, Draft Decisions and Decisions of AAITF – Definition**

6.1 AAITF recorded its actions in the form of Draft Conclusions, Draft Decisions and

Decisions within the following definitions:

- a) **Draft Conclusions** deal with matters that, according to APANPIRG terms of reference, require the attention of States, or action by the ICAO in accordance with established procedures;
- b) **Draft Decisions** deal with the matters of concern only to APANPIRG and its contributory bodies; and
- c) **Decisions** of AAITF that relate solely to matters dealing with the internal working arrangements of AAITF.

#### List of Decisions and Draft Conclusions/Decisions

#### 7.1 List of Draft Conclusions

#### Draft Conclusion AAITF/9-1: Access to ICAO Annexes and Documents

That, States are urged to ensure that all personnel having responsibility for the origination, reception, management and/or distribution of aeronautical information and aeronautical data have full access to the relevant ICAO Annexes and Documents, either in up-to-date hard copy form or by arranging internet access through the ICAO Secure Portal.

#### **Draft Conclusion AAITF/9-2: AIM Transition Reporting**

That, considering:

- the Asia/Pacific Seamless ATM Plan expectation of implementation of Phase 1 and Phase 2 AIS to AIM roadmap transition steps by November 2015;
- 2) the AAITF Terms of Reference requirement to monitor AIM transition; and
- 3) the information used for regional and global ATM performance reporting,

States are urged to:

- a) Verify the information currently recorded in the AIM Implementation Table appended at **Appendix D** to the report, and
- b) update the information in the AIM Transition Table at least once annually, by April 30 each year.

#### Draft Conclusion AAITF 9/3: Duplicated 5LNC in Dangerous Proximity

That States take coordinated action to replace duplicated 5LNC identified to be in dangerous proximity as detailed in **Appendix J** to the report.

## Draft Conclusion AAITF 9/4: Access to ICARD ATS Route Designators Function

That, taking into consideration the rising demand for ATS route designators resulting from airspace capacity and efficiency changes and implementation of PBN routes and airspace, ICAO takes steps to provide Asia/Pacific ICARD\_5LNC\_MANAGERS and ICARD\_5LNC\_PLANNERS with access to the ATS Route Designators function of the ICARD application

#### REPORT ON AGENDA ITEMS

#### Agenda Item 1: Election of Chairperson/Adoption of Agenda (WP01)

- 1.1 Mrs. Ariungerel Purev, Director of AIS, Mongolia Civil Aviation Authority, was elected as Chairperson of AAITF
- 1.2 The provisional agenda was adopted by the meeting

#### **Agenda Item 2: Review Outcomes of Related Meetings**

#### Related Meeting Outcomes (WP/02)

- 2.1 The Secretariat provided information on the outcomes of the following related meetings:
  - The Fourth Meeting of the ICAO Asia/Pacific Seamless ATM Planning Group (APSAPG/4), held in Hong Kong, China, from 3 to 7 June 2013;
  - The Twenty-fourth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/24), held in Bangkok, Thailand, from 24 to 26 June 2013:
  - The 50<sup>th</sup> Conference of Directors General of Civil Aviation of the Asia and Pacific Regions (50<sup>th</sup> DGCA Conf.) held in Bangkok, Thailand, from 1 to 4 July 2013; and
  - A Meeting of the Chairpersons of APANPIRG Sub-Groups; held in Hong Kong, China on 16 and 17 January 2014

#### APSAPG/4

- 2.2 APSAPG/4 had produced the final draft version of the Asia/Pacific Seamless ATM Plan, which was endorsed by APANPIRG/24. The Seamless Plan included two performance objectives, expected to be implemented in two phases:
  - Preferred Aerodrome/Airspace and Route Specifications (PARS) Phases I and II;
  - Preferred ATM Service Levels (PASL) Phases I and II;
- 2.3 Phase I of the PARS and PASL were expected to be implemented by 12 November 2015, and Phase II by 8 November 2018.
- 2.4 Included in PARS and PASL Phase 1 were a number of items that would require AIS/AIM support, including the the following item that was of most direct interest to AAITF:
  - 7.38 ATM systems should be supported by digitally-based AIM systems (using Aeronautical Information Exchange Model version 5.1 or later) through implementation of Phase 1 and 2 of the AIS-AIM Roadmap in adherence with ICAO and regional AIM planning and guidance material (ASBU Priority 1).

2.5 The meeting observed that the implementation of all Phase I and Phase II AIS – AIM Transition Roadmap steps to achieve the digital environment by November 2015 would be a significant challenge.

#### APANPIRG/24

- 2.6 APANPIRG/24 had reviewed the status of implementation of APANPIRG/23 Conclusions and Decisions, and urged States who were yet to develop their basic AIS to AIM Transition plans that identified target completion dates of transition elements in the AIS to AIM Roadmap to devote more efforts and resources.
- 2.7 APANPIRG/24 was informed of Regional "performance dashboards", a publicly available interactive online system that would provide information on regional implementation status of air navigation systems, and of the objective of the planned Global Air Navigation Report to assist PIRGs and States in understanding which areas required special attention. The Global Air Navigation Report would also cover implementation progress of selected Aviation System Block Upgrade (ASBU) Block 0 modules, including Aeronautical Information Management.
- 2.8 Noting that ICAO had developed the fourth edition of the Global Air Navigation Plan (GANP) incorporating the Aviation System Block Upgrade (ASBU) framework, and further noting that all ASBU modules may not be applicable to all States or Regions, APANPIRG/24 agreed that implementation priorities for ATM enhancements would vary between regions. Noting also the PIRG RASG Global coordination request for PIRGs to establish regional priorities and set targets, the task of performance measurement within the APANPIRG mechanism was assigned to the existing sub-groups. APANPIRG having adopted *Conclusion 24/2 Establishing Regional Priorities and Targets*, which invited the Chairpersons of ATM, RASMAG, CNS and MET sub-groups to establish regional priorities and targets for the APAC Region in alignment with the GANP and Seamless ATM Plan..
- 2.9 APANPIRG/24 had also adopted *Conclusion 24/3 Regional and Global Air Navigation Reporting*, urging States to support the plan for an online regional performance dashboard, provide requisite information to ICAO Regional Office, and establish a performance measurement strategy for the identified regional performance metrics for the air navigation system.
- 2.10 APANPIRG/24 adopted *Conclusion 24/54 Asia/Pacific Seamless ATM Plan* endorsing the Asia/Pacific Seamless ATM Plan, and *Conclusion 24/55 State Seamless ATM Planning* urging States to review the Seamless ATM Plan and submit the first Regional Seamless ATM Reporting Form.
- 2.11 The Seamless ATM Plan and related implementation guidance, State plan template, reporting form and template for comments were available on the ICAO Asia/Pacific Regional Office website at http://www.icao.int/APAC/Pages/edocs.aspx.

#### 50<sup>th</sup> DGCA Conference

The 50<sup>th</sup> DGCA Conference had discussed AIS-AIM transition in the Asia/Pacific Region, the critical importance of AIS/AIM, and the Region's poor performance in AIM implementation, noting that Air Navigation Deficiencies would be raised against unimplemented AIS-AIM Transition steps. The Conference was further informed of the continuing problem of significant AIP changes being promulgated without appropriate quality control, and with lead-times not complying with ICAO standards. *Action Item 50/13* was agreed, urging States to promote the profile and awareness of AIS/AIM within their States, ensure compliance with Annex 15 and implementation of the AIM Transition steps, and address the causes of non-compliance with ICAO AIRAC requirements.

#### Meeting of APANPIRG Sub-Groups Chairs

2.13 Through a number of teleconferences and one face-to-face meeting (Hong Kong, China, January 2014), the APANPIRG Sub-Groups Chairs had agreed to include a number of ASBU modules in the Asia/Pacific Region's priorities, including B0-DATM – Aeronautical Information Management. The Sub-Groups Chairs also noted the Asia/Pacific Seamless ATM Plan, endorsed by APANPIRG, contained 42 seamless ATM elements and that each element was assigned a priority. These elements were reviewed, and 10 were identified as regional priorities for implementation. Of most significance to AAITF were B0-APTA – *Performance Based Navigation (PBN) – Terminal* and *B0-DATM – Aeronautical Information Management*.

#### ICAO AIS-AIMSG Progress (IP/02)

- 2.14 An detailed update on the outcomes of the ICAO AIS-AIM Study Group (AIS-AIMSG) was provided by Australia's participant in the Study Group, and presented by the Secretariat.
- 2.15 There had been two meetings of AIS-AIMSG and three AIS-AIMSG Ad-hoc Group meetings since AAITF/8 was held in May 2013. The frequency of the meetings had been increased to progress the work of the SG to rewrite Annex 15 and develop new *Procedures for Air Navigation Services Aeronautical Information Management* (PANS-AIM). AIS-AIMSG/8 was held in Montreal, Canada, from 4 to 8 November 2013 and AIS-AIMSG/9 in Tokyo, Japan, from 21 to 25 April 2014.
- The full Summaries of Discussions, supporting study notes and information papers were available on the AIS-AIMSG web-page at <a href="http://www.icao.int/safety/ais-aimsg/Lists/Meetings/AllItems.aspx">http://www.icao.int/safety/ais-aimsg/Lists/Meetings/AllItems.aspx</a>.
- 2.17 Priority was given to documents being delivered to the ICAO editorial section for review in the order:
  - AIS Manual Doc 8126;
  - Quality Manual Doc 9839;
  - Training Manual Doc 9991;
  - Aeronautical Chart Manual Doc 8697.
- 2.18 AIS-AIMSG/9 noted that the above documents were being delivered to the ICAO editorial section soon.
- 2.19 The information included considerable detail of the discussions of AIS-AIMSG on material for inclusion in the re-written Annex 15 and new PANS-AIM.

- AIS-AIMSG/9 had reviewed information relating to NOTAM proliferation, and the approaches used by States to eliminate bad practices contributing to excessive publication of unnecessary or irrelevant NOTAM. Based on international NOTAM trends in Europe for the period 2006 2013 the major reason for the increase in the number of NOTAMs was "natural growth", reflecting that operationally significant events either happen more often or were not previously considered operationally significant. Other reasons considered to contribute to the excessibe publication of unnecessary or irrelevant NOTAM included:
  - Excessive publication of long term and permanent NOTAM and the lengthy transfer of such NOTAM into the AIP;
  - Insufficient knowledge on the part of originators regarding the circumstances that require a NOTAM, and of the deadlines for publishing this information via amendments to AIP:
  - Long cycles for AIP amendment publication lead to increased NOTAM for the "in between Time" and corrections to submitted NOTAM:
  - The use of NOTAM to re-notify information already published in AIP, AIC or SUP; and
  - The use of several NOTAM to address a single subject matter i.e. multiple closures of taxiways at the same airport.

#### 2.21 Good practices identified included:

- Awareness campaign with originators on strict application of Annex 15 para. 5.1.1.1 5.1.1.3 requirements;
- Ensuring adequate oversight of the NOTAM origination and publication process;
- Establishment of a NOTAM Review Group with the objective of 'conducting a review of national NOTAM in order to enhance the effectiveness of aeronautical information'; and
- Critically looking at NOTAM published for dangerous areas activity time, lanterns, balloons and fireworks and permanent information.
- 2.22 While aeronautical charting was not in the main scope of AIS-AIMSG, Annex 4 was very closely linked to Annex 15 and the AIP. Charting aspects were therefore taken into consideration for the restructuring of Annex 15 and the new edition of PANS-AIM.
- AIS-AIMSG had noted that the ICAO Air Traffic Management Requirements and Performance Panel (ATMRPP) was agreeing upon a System Wide Information Management (SWIM) Concept document, establishing guidelines for information management enabling ATM service providers to ensure global interoperability. While the standards would permit interoperability, the ICAO SWIM Concept would not prescribe or expect a single global implementation of SWIM.

2.24 **Table 1** provides selected items from the timetable of events/milestones and work deliverables of AIS-AIMSG.

Dates(s)/Timeframe		Event/	Work Deliverables
		Milestone	
	13-15 May	IFAIMA,	
	2014	Dubai	
	30 June – 4	Ad-hoc	Draft of Annex 15 and PANS-AIM
	July 2014	meeting	
		(Lisbon)	
	Q2/3 2014	Secretariat	o AIS Manual Amdt3 Doc8126
		review &	<ul> <li>Quality Manual Doc9839</li> </ul>
		Publication	o Training Manual Doc9919
		of	o AIM Concept
		completed	o eTOD/AMDB Manual Doc9881
		manuals	o WGS-84 Manual (accuracy &
2014			heighting) Doc9674
			<ul> <li>Charting Manual update</li> </ul>
			Doc8697
			<ul> <li>Public Usage of the Internet</li> </ul>
			Doc9855
			<ul> <li>Updates to Doc 8400 PANS-</li> </ul>
			ABC
	10-14	AIS-	Mature draft (by SG) Annex 15 &
	November	AIMSG/10	PANS-AIM
	2014	(Montreal)	
	February-	ANC review	
	March 2015	Annex 15 &	
		PANS-AIM	
	<b>Optional</b>	Ad-hoc	Depending on the maturity of the
	Pre-ANC	meeting	Annex15/PANS-AIM a final working
2015	or	or	or ANC comment review meeting may
2015	Post-ANC	AIS-	be required.
		AIMSG/11	
		(both	To be decided in Lisbon if any of
		Montreal)	these meetings is required.
	TBD	New Annex	Completion of AIS-AIMSG work
2016		15	program
2016		applicable &	
		PANS-AIM	
		introduced	

 Table 1: Selected AIS-AIMSG Events/Milestones and Work Deliverables

2.25 In discussion of this information the meeting considered that the quality of data in the AIM environment was heavily dependent on the quality of the people, and the maturity of the AIM Training Manual would have a significant bearing on AIM implementation. The Secretariat advised that the manual was in the late stages of its preparation and was expected to be published this year.

- 2.26 Quality management and the relationship of data quality with transition step P-18 Agreements with Data Originators were also discussed. Australia advised that regulations would soon be in place requiring the AIS organization to provide data product specifications to all data originators. In implementing step P-18 Japan had provided guidance on data originating to data originators, but was also studying Australia's regulation.
- 2.27 The Secretariat provided the meeting with a short briefing on ICAO documents supporting AIS and the implementation of AIM. In discussion it became apparent that only approximately 10 percent of meeting participants had access to Annex 15 to the Convention, or to the AIS manual. The meeting agreed to the following Draft Conclusion:

#### **Draft Conclusion AAITF 9/1: Access to ICAO Annexes and Documents**

That, States are urged to ensure that all personnel having responsibility for the origination, reception, management and/or distribution of aeronautical information and aeronautical data have full access to the relevant ICAO Annexes and Documents, either in up-to-date hard copy form or by arranging internet access through the ICAO Secure Portal.

2.28 Access to ICAO Annexes, Documents and other publications could be arranged by email to <a href="mailto:sales@icao.int">sales@icao.int</a>, or through the ICAO Secure Portal at <a href="http://portal.icao.int/">http://portal.icao.int/</a> (request account). The ICAO Publications Catalogue could be viewed at:

http://www.icao.int/publications/Pages/catalogue.aspx.

#### Agenda Item 3: Review of Air Navigation Deficiencies in the AIS Field

#### AIS-AIM Air Navigation Deficiencies (WP/03)

- 3.1 The Secretariat presented the AIS AIM related Air Navigation Deficiencies as identified by the Twenty-Fourth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/24), and by the ICAO Regional Office, for review and update by the meeting. A significant number of new deficiencies were included in the list
- 3.2 The Roadmap for Transition from AIS to AIM identified a number of transition steps, to be implemented in 3 phases. Phase 1 *Consolidation* includes *inter-alia* the transition steps P-05 *WGS-84 Implementation and* P-17 *Quality*.
- AAITF maintained a record of implemented AIM transition steps for all Asia/Pacific States and Administrations in the form of the AIS AIM Transition Table, available on the ICAO Asia/Pacific Regional Office website at <a href="http://www.icao.int/APAC/Pages/edocs.aspx">http://www.icao.int/APAC/Pages/edocs.aspx</a>. States and Administrations had been informed of the table on a number of occasions, and there were several requests by the ICAO Regional Office for updated information. The most recent requests for updated information were distributed to all States and Administrations in State Letters AP026/14 (ATM) and AP044/14 (ATM).
- 3.4 APANPIRG/24 and the 50<sup>th</sup> DGCA Conf. were informed that Air Navigation Deficiencies would be raised against unimplemented Phase 1 and Phase 2 Transition Steps that were incorporated in the current Edition of Annex 15 (Thirteenth Edition, incorporating amendments up to Amendment 36, applicable 18 November 2013).
- 3.5 The Asia/Pacific Seamless ATM Plan, included expectations for implementation of specific performance objectives, including the expectation that AIS-AIM Phase 1 and Phase 2

Transition Steps would be implemented by November 2015. Taking the expectations of the Seamless ATM Plan and the current status of global AIM implementation guidance material into consideration, Regional Office intended to raise Air Navigation Deficiencies against Phase 1 AIS-AIM Transition Steps only. Phase 2 Transition Steps would be considered in 2015 and beyond.

#### WGS-84 Implementation

- 3.6 WGS-84 had been included in Annex 15 as the global standard for expression of published geographical coordinates indicating latitude and longitude since 1 January 1998. The wording of the standard had been in Amendment 33 to the Annex, applicable in November 2004, to state that WGS-84 shall be used as the horizontal reference system for international air navigation. Comprehensive guidance material concerning WGS-84 was contained in the ICAO *World Geodetic System* 1984 (WGS-84) Manual (Doc 9674). The current version of this document was the Second Edition, published in 2002.
- 3.7 Four Asia/Pacific States were currently listed in the *APANPIRG Reporting Form on Air Navigation Deficiencies in the ATM Field in the Asia/Pacific*) for unimplemented WGS-84. A further thirteen States would be added to the Form under this item, for consideration by ATM/SG/2 and subsequently by APANPIRG/25 in September 2014.

#### **Ouality Management System**

- 3.8 The requirement for each Contracting State to take all necessary measures to introduce a properly organized quality system had been included in Annex 15 since 2 November 2000. Global guidance material for Quality Systems was included in the current edition of ICAO Doc 8126 AIS Manual (Eighth Edition, published in 2003 and last amended in September 2009). Detailed Regional guidance material for Quality Systems was included in the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*, last amended on 1 September 2010, and also available on the ICAO Asia/Pacific Regional Office website.
- 3.9 No States were currently listed in the APANPIRG deficiencies reporting form for unimplemented Quality Management Systems. 28 States would be added to the form under this item, for consideration by ATM/SG/2 and APANPIRG/25.
- 3.10 The Deficiencies List was an excerpt of the APANPIRG deficiencies form, listing AIS/AIM related deficiencies for the Asia/Pacific Region. Including the abovementioned items, there were now three deficiencies identified in the list.
  - WGS-84 not implemented (17 States)
  - AIP Format (4 States)
  - Quality Management System not implemented (28 States)
- 3.11 No deficiencies had been removed from the list since it was last considered by AAITF. The proposed AIS/AIM Deficiencies List is appended at **Appendix C** to this report. Each of the States added to the list would be separately notified, to provide the opportunity to update the information prior to APANPIRG/25.
- 3.12 In discussing issues related to Quality Management Systems and their certification, it was noted by the Chair that certification itself was less important than the establishment of an effective Quality Management System.

#### **Agenda Item 4: AIS-AIM Updates**

#### Regional AIM Transition Progress and Progress Reporting (WP/04)

- 4.1 The Secretariat provided a summary of AIM transition progress in the Asia/Pacific Region since AAITF/8 was held in May 2013, as reported to the ICAO Regional Office. The progress of the Asia/Pacific Region's AIS-AIM transition was recorded in the AIM Transition Table. Progress was recorded against each of the Transition Steps identified in the ICAO Roadmap for Transition from AIS to AIM. Where a Transition Step was not fully implemented, progress towards full implementation was recorded as a percentage figure.
- 4.2 AIM implementation was also recorded in the Seamless ATM Reporting Form.
- 4.3 The AIM Transition Table was developed as an outcome of AAITF/6 (Bangkok, Thailand, 15 17 March 2011), and supported by the following Conclusions agreed by APANPIRG:

#### Conclusion 22/2 - AIM Transition Table

That, the ICAO APAC Regional Office maintains the AIM Transition Table as a means of tracking State transition to AIM, and to provide current details on AIM capability for interoperability, by publishing the State AIS – AIM Transition Table at Appendix B to Report on Agenda item 3.2 on the APAC web site.

4.4 The gathering of information from States was also supported most recently by State Letters A026/14 and A044/14 (ATM). Since the inception of the AIM Transition Table the following States had provided no information:

Bhutan, Brunei Darussalam, Kiribati, Marshall Islands, Micronesia, Nauru, Samoa, Tonga.

- 4.5 In the period since AAITF/8 (May 2013) 15 States had reported the implementation status of AIM Transition Steps to the ICAO Regional Office, including significant progress among several States.
- 4.6 Some States had revised-down their previously reported implementation status. This may be due to a number of factors, including project re-assessment as more knowledge was developed, or the correction of information in previous reports that may have been based on inconclusive data. The latest update of the AIM Transition Table is provided at **Appendix D**.
- 4.7 The Seamless ATM Reporting Form recorded AIM Transition Step status only in terms of either completed or not completed. The AIM Transition table provided additional scope for States and Administrations to report their degree of progress towards full implementation of each Transition Step. The AIM Transition Table therefore provided a more useful illustration of regional implementation progress for evaluation by AAITF. The progress recorded in the AIM Transition Table was also currently used for Regional Performance Dashboards and the Global Air Navigation Report, both of which provided publicly available information about Regional and State AIM implementation progress.
- 4.8 Reporting of AIM transition status had been inconsistent, and was in some cases non-existent. While a number of APANPIRG Conclusions and ICAO State Letters had encouraged reporting, there was no established cycle for reporting AIM transition status to AAITF.

4.9 It was in the interests of Asia/Pacific States and Administrations to ensure that progress achieved was accurately reported to AAITF, and in the information available to the public including the AIM Transition Table, Regional Performance Dashboard and Global Air Navigation Report. In order to improve State engagement with AAITF activities and the quality of AIM transition status reporting the following Draft Conclusion was agreed by the meeting:

#### **Draft Conclusion AAITF 9/2: AIM Transition Reporting**

#### That, considering:

- 1. the Asia/Pacific Seamless ATM Plan expectation of implementation of Phase 1 and Phase 2 AIS to AIM roadmap transition steps by November 2015;
- 2. the AAITF Terms of Reference requirement to monitor AIM transition; and
- 3. the information used for regional and global ATM performance reporting,

#### States are urged to:

- a. Verify the information currently recorded in the AIM Implementation Table appended at **Appendix D to the report**, and
- b. update the information in the AIM Transition Table at least once annually, by April 30 each year.

#### Electronic AIP of China (IP/03)

- 4.10 An overview of China's eAIP production was provided to the meeting
- 4.11 The Civil Aviation Administration of China (CAAC) had formally published electronic AIP (eAIP) on the website <a href="www.eaipchina.cn">www.eaipchina.cn</a>. Users could access content of AIP, AIP Amendments, AIC and AIP SUP.
- 4.12 The organization and management of CAAC's eAIP included eAIP Information Database Management, eAIP Editing and Proofreading and eAIP Production. Information was stored and managed in a database, and the Aeronautical Information Concept Model (AICM) and Aeronautical Information Exchange Model (AIXM) were referenced in the database design. XML format was used as the underlying data organization of the system, with full editing, proofreading, process flow and formal validation functions to improve data quality.
- 4.13 The system could automatically extract relevant data and organize AIP data from the database according to the effective date of the information, and supported the production of a variety of file formats including PDF, DOC and HTML.

#### Cambodia AIS to AIM Transition Update (IP/04)

4.14 Cambodia had formed an AIS to AIM team to plan and implement the transition from AIS to AIM. Having almost completed Phase 1 of AIM transition, Phase 2 was progressing at a comparatively slow pace. A benchmarking study was conducted at the Viet Nam Aeronautical Information Service Center (VNAIC) under the cooperation of the Civil Aviation Authority of Viet Nam.

- 4.15 Cambodia would soon publish the AIP in CD-ROM, and on the Cambodia Air Traffic Service (CATS) website at <a href="www.cats.com.kh/eaip">www.cats.com.kh/eaip</a>. CATS and SSCA were working towards the official launch of the website, to be promulgated by AIC.
- AIS specialists from VNAIC were invited to Cambodia to update AIM knowledge of Cambodian AIS specialists. Training would commence in July 2014, covering ICAO AIS to AIM transition, eAIP, Aeronautical Information Exchange Model (AIXM) aeronautical Information Conceptual Model (AICM), Digital NOTAM and Electronic Terrain and Obstacle Data (eTOD). CATS was also planning for advanced AIS training at the Singapore Aviation Academy.
- 4.17 Following the successful implementation of PBN flight procedures at Phnom Penh and Siem Reap international airports the final WGS-84 survey for Sihanouk International Airport was planned for O4 2014, to then be followed by PBN SID/STAR and RNAV (GNSS) approach design.
- 4.18 The CATS AIS reporting office at Phnom Penh was renovated and expanded to accommodate future staff and automation equipment, and the same was under planning for Siem Reap. CATS, with the approval of SSCA, was planning to approach an AIM automation system vendor for AIM implementation phases 2 and 3

#### Quality and Data Quality and Integrity Monitoring (WP/05)

- 4.19 Australia proved an overview of Airservices Australia's AIS to AIM transition progress in respect to Quality Management, including experience and lessons learnt with the introduction of AIXM.
- 4.20 AIM management practices would ensure and provide objective evidence that the quality of AIM systems and services was suitable for the customer's intended purpose and conformed to agreed specifications and performance standards.
- 4.21 The AIM business management system was based on the requirements of the Australian Standard AS/NZS ISO series of standards and guidelines for quality management systems. AIM ensured that Quality objectives were established and routinely reviewed as part of the ongoing management review process with internal auditing scheduled through Airservices Audit and Assurance Branch.
- 4.22 The AIM business unit utilized various services, initiatives and processes to continually improve the effectiveness and efficiency of the management and production systems, including analysis and measurement of performance against business plan objectives, manager accountability for continuous improvement of their teams, management review of documented systems including policies, instructions, processes and objectives, comprehensive staff induction and training procedures, risk management through the "Bow-Tie" risk assessment methodology, system enhancements and the embracing of new technology to improve procedures or introduce new capability.

#### $Phase\ 1-Consolidation-P-17\ Quality$

- 4.23 The Airservices AIM Quality Management System was certified under ISO 9001:2008. The AIM Quality Manual described the quality management procedures for all stages of the data process, consisting of but not limited to:
  - *Initial check* phase receive, evaluate raw data, process raw data, authorise/approve;

- *Prepare* phase store, choose publication method, select, assemble, translate, quality check;
- *Issue* phase print, collate, final quality check, distribute
- Error management phase detect, remediate, prevent
- Source traceability.
- 4.24 Major quality improvements included the introduction of a staging environment allowing data to be validated before inclusion in any product, using a database to capture the aeronautical data allowing parameters with limitations for data, and checklists to ensure the data received suited the intended use and adhered to data standards.

#### 4.25 Challenges:

- Limited tools to validate data
- Sourcing data was a "pull" function. It was preferred that data originators supply data on time
- Electronic data was gaining preference. Sufficient notification was required from data originators for AIM to action changes
- Surveyors were not surveying critical information that was required for AIM, for example runway thresholds instead of runway ends.

*Phase 2 – Going Digital – P-01 Data Quality Monitoring and P-02 Data Integrity Monitoring* 

- 4.26 Airservices was replacing the Aeronautical Data Management System with data centric integrated software. This transition would allow Airservices to automate most of the Data Quality and Integrity Monitoring and provide the ability to exchange electronic datasets with other ANSPs. The Statement of Requirements for the acquisition of the new software included integrated data quality abilities to be included within the software, to ensure accuracy, resolution and integrity of data:
  - Validation rules (Structural and Operative) based on AIXM,
  - Data quality requirements; ADQ, RTCA DO-201A/EUROCAE ED-77, Annex 15
  - Standard data formats; ARINC 424, AIXM 4.5 and AIXM 5.1
- 4.27 Major data quality monitoring improvements included:
  - Data Quality System;
  - System checks; minimal data, consistency;
  - Cyclic redundancy checks (CRC);
  - System attribute limitations or restrictions;

- Validation rules; if/then scenario based on recommended practices/Annex; and
- Application of Eurocontrol's AIXM business rules.
- 4.28 Major data integrity monitoring improvements included:
  - CASR P175 Data Product Specifications based on accuracy and confidence levels as described in Annex 15 and RTCA DO-201A
  - Adoption of the AICM
  - Standard business rules developed by Eurocontrol
- 4.29 Challenges:
  - AIXM business rules needed some human intervention (still under development);
  - Few users were capable of electronic data exchange;
  - The Aeronautical Information Conceptual Model was not well represented in Australia and minimal training was available; and
  - New system experience limited
- 4.30 It was clarified that auditing was conducted once annually by internal audit. The audit process itself was subject to external audit.
- 4.31 In response to a query on what process was used for error detection, Australia advised that the primary error detection process was customer feedback. Other processes included regular internal checks, ISO 9000 error management including audit observations, and a corporate requirement for recording of all errors and system problems. As errors may be caused by data originators, checks of data chain processes were conducted. Data specification sheets would improve the quality of data received. A new system including an internet interface for data originators would resolve many data issues at the point of entry.

#### FAA System Wide Information Management (SWIM) Program (IP/05)

- 4.32 The USA presented an update of the FAA Service Oriented Architecture (SOA) and working examples of current and near-future SWIM applications including SOA Modification and Real Time Applications and Procedures for SWIM.
- 4.33 The (FAA) System Wide Information Management (SWIM) program was an Information Technology (IT) infrastructure program that provided data to authorized users, facilitating collaboration across National Airspace System (NAS) users. It would provide flexible and secure information management architecture for sharing NAS advisory data to enable increased common situational awareness and improved NAS agility. SWIM would use Commercial Off-The-Shelf (COTS) hardware and software to support a loosely coupled Service-Oriented Architecture (SOA) that allowed for the easier addition of new systems and connections. SOA technology allowed software applications to locate and interact with one another through information services that could be accessed without knowledge of the other application's underlying platform implementation.

- 4.34 The SOA organized technical capabilities in a standard way to allow for the flexible accomplishment of constantly changing needs and demands. By following SOA standards and principles, SWIM would make services available on a network, enabling those systems on the network seeking services to invoke them without having to change or adapt to the underlying implementation of the service. SOA Governance assured that services were kept at a defined level of integrity, performance, reliability, currency, and security support for enterprise data and privacy within and across boundaries.
- 4.35 The SWIM program would employ a dual approach to its SOA Suitability Assessments of potential NAS services. The potential for existing NAS services to be utilized or tailored to meet the requirement, the probability for other users to benefit from the information exchange, and the potential hazards for exposing data through SWIM (e.g., proprietary data, non-FAA user access) would be assessed. SWIM would also assesses the Life-Cycle Cost of SOA versus other solutions, the required system performance, related non-performance requirements (such as safety/certification and information security), and impact to existing architecture.
- 4.36 Examples of the types of information shared through SWIM included airport surface management information, weather data, flight planning data, air traffic flow management information, NOTAMs and special use airspace status.
- 4.37 The FAA had many air traffic automation systems using many types of software. Developing interfaces between these systems had been very labour-intensive and time-consuming. Without SWIM, the additional interfaces needed for NextGen would lead to an unmanageable collection of unique, point-to-point interfaces (**Figure 1**). Instead, we hope to use SWIM to simplify the development of standardized interfaces in the future, so that unique, point-to-point interfaces between systems can be minimized.

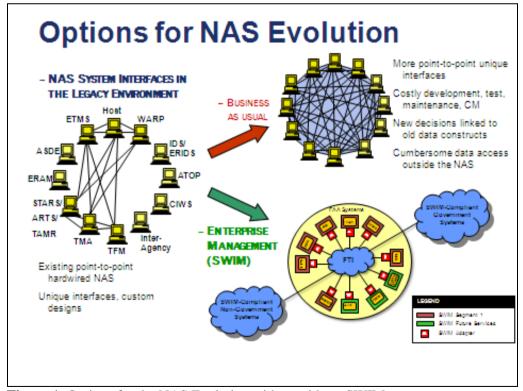


Figure 1: Options for the NAS Evolution with or without SWIM.

4.38 The FAA would implement SWIM in two segments.

- 4.39 In SWIM Segment 1, each program will be responsible for end-to-end messaging operations using SWIM-provided software.
- In SWIM Segment 1 the NAS Service Registry and Repository (NSRR) was a resource that provided secure controlled access to data necessary for the implementation and governance of SOA projects. Potential consumers would search the registry to discover NAS services that were available for consumption. These potential consumers would have access to metadata and service artifacts, and they could use this information to request services from the providers. Publishers managed and stored metadata and service artifacts about their services in a single location. Currently, Eurocontrol and the Japan Civil Aviation Bureau (JCAB) had access the NSRR.
- 4.41 Tools provided for use by developers of SWIM services included a SWIM Commercial-Off-The-Shelf (COTS) Products Repository (SCPR), and a SWIM Wiki providing a collaboration forum for developers and other members of the SWIM community.
- 4.42 SWIM Segment 1 would deliver nine NAS business services or capabilities, of which seven were complete and operational:
  - Integrated Terminal Weather System (ITWS) Data Publication
  - Corridor Integrated Weather System (CIWS) Data Publication
  - Weather Message Switching Center Replacement (WMSCR) Pilot Report (PIREP) Data Publication
  - Aeronautical Information Management (AIM) Special Use Airspace (SUA) Automated Data Exchange
  - Reroute Data Exchange
  - SWIM Terminal Data Distribution System (STDDS)
  - Runway Visual Range (RVR) Data Publication
  - Traffic Flow Management (TFM) Flow Information Publication (not yet operational)
  - Flight Data Publication Service (not yet operational)
- 4.43 SWIM Segment 2 would provide a common messaging infrastructure for NAS programs to use. SWIM would be responsible for message delivery and Segment 1 services would start using the new infrastructure. The provision of governance, standards, and SOA implementation software to other NAS programs would continue.
- 4.44 SWIM Segment 2 core services included:
  - Messaging for web services (e.g. reliable messaging) as well as Java Messaging Services (publish/subscribe and request/response);
  - Interface Management interface specification, discovery and schema management;
  - Security authentication, authorization, and audit services; and

- Enterprise Service Management service monitoring, service configuration, and system monitoring.
  - Segment 2 enterprise IT infrastructure includes:
- NAS Enterprise Messaging Services (NEMS) provides the messaging service;
- Domain Name Service (DNS) provides naming and name-to-address resolution services across the NAS; and
- Network Time Protocol/Precision Time Protocol (NTP/PTP) provides time
- synchronization services across the NAS.
- 4.45 More information on the FAA's SWIM program was available at: http://www.faa.gov/nextgen/swim.
- 4.46 USA pointed out to the meeting that the concept of SWIM existed in other industries and applications that were in common use globally.
- 4.47 It was clarified that the SWIM program included AIXM, Flight Information Exchange Model (FIXM) and Meteorological Information Exchange Model (WXXM), as they currently existed.

#### Fiji AIS to AIM (IP/06)

- 4.48 Information was presented to the meeting on the role of AIS in Fiji and the work undertaken to progress from AIS to AIM.
- 4.49 Fiji's AIS section formed a part of the Air Traffic Management Division. The unit was responsible for providing aeronautical information services according to the Annex 15 and ICAO Doc 8126, and the production of charts according to Annex 4.
- 4.50 AIS Fiji acquired AIXM 4.5 static database in 2010 to perform the Briefing function.
- 4.51 AIS Fiji had completed obstacle data collection in 2012 for the four aerodromes in Fiji including the two international airports Nadi and Nausori Airport. It would continue to do so in every two years in order to update its database.
- 4.52 On the July 2014 AIRAC date AIS Fiji would begin producing the Fiji Visual Terminal Chart (1: 500 000) in house for the first time. This activity that had been outsourced for a number of years.
- 4.53 AIS Fiji had established a project team responsible for the transition of AIS to AIM. The project team consisted of members of the AIS office, the Civil Aviation Authority and the Technical Department.
- 4.54 Regardless of the lack of resources AIS Fiji was working to complete Phase 1 & Phase 2 of AIM transition by 2015. A new system was required by 2015 to support the automation requirement for Phase 3 as the current system did not have the capability to support these requirements. The new system would also be required to support our PBN Implementation Plan.
- 4.55 Fiji requested clarification from the meeting on AIM transition steps P-15 *Aerodrome Mapping* and P-16 *Training*.

- 4.56 Regarding P-15, USA commented that with the advent of more advanced aircraft systems and performance-based navigation procedures aerodrome mapping had become more critical to operations. Aerodrome mapping should be applied to any airport with significant commercial or GA operations.
- 4.57 The meeting formed the view that transition step P-16 related to training of personnel in and for the AIM environment rather than for the existing AIS. Further discussion was generated regarding the difficulty in interpreting the high level concepts communicated in the AIM Transition Roadmap without the necessary global guidance material. The meeting requested that further enquiry should be made of the AIS-AIMSG or other knowledgeable bodies as there was still no clear guidance on what the steps mean.
- 4.58 Fiji further advised that their AIS procedures which were incorporated in the ATM manual had been removed and incorporated into a new AIS manual along with OPADD procedures. The Fiji AIS Quality Manual was developed based on the Quality Manual Template contained in the AIS Guidance Material for Asia/Pacific, 2002.
- 4.59 Fiji was considering the possibility of having an AIM workshop conducted in Fiji. This would provide a good opportunity for not only Fiji, but for other smaller Pacific island States to participate and improve their knowledge of AIM.

#### AIS to AIM in Indonesia (IP/07)

- 4.60 Indonesia provided information highlighting the current and planned stage of AIM implementation.
- 4.61 Significant organizational changes relating the separation of air navigation service provision and airport operations had been made. The air navigation service provider, AIRNAV INDONESIA, had been established in 2012, unifying air navigation services within the Jakarta and Ujung Pandang FIRs.
- 4.62 An update of the status and planning of AIM transition steps in Indonesia was provided to the meeting.
- 4.63 It was noted by the meeting that Indonesia's paper highlighted the varied relationships that existed from State to State between regulators, ANSPs and other stakeholders, and the difficulty in establishing agreements or regulatory links between different agencies with roles in AIM. In cases where the regulatory environment did not provide adequate support the AIS organization should commit the effort and resources to engaging with other stakeholders to ensure the quality and timeliness of aeronautical information.

#### <u>Implementation Process for AIS – AIM (IP/10)</u>

- 4.64 An update was provided on the process of implementation for transition from AIS to AIM within Lao PDR.
- 4.65 Phase 1 Transition Steps P-03 *AIRAC Adherence Monitoring* and P-04 *Monitoring of State's differences to Annex 4 and Annex 15* were implemented. Step P-05 *WGS-84 Implementation* was progressing, with all aeronautical data in the AIP and charts expressed in WGS-84 coordinates and 2 of 4 international airports' aeronautical data was surveyed under WGS-84. Regulation and control mechanisms for implementation of step P-17 Quality were currently being processed for approval.
- 4.66 An AIS automation system granted by the Japanese Government would be installed by

the end of 2014 and implemented in early 2015.

#### **Agenda Item 5: Any Other Business**

#### List of Valid NOTAM (WP/06)

- 5.1 Mongolia provided information discussing the need for distribution of a List of Valid NOTAM as specified in Annex 15 Chapter 5, and the similarity between the List of Valid NOTAM and the Checklist of NOTAM.
- 5.2 It was proposed that the need for a List of Valid NOTAM had decreased due to the advancement in technology used to access aeronautical information, particularly online and portable devices. The distribution of a List of Valid NOTAM resulted in users receiving out-dated information.
- 5.3 The List of Valid NOTAM and NOTAM checklist had only one significant difference in that the Checklist of AIP SUP must be included in the List of Valid NOTAM. If a List of Valid NOTAM was not provided, users would not receive the checklist of AIP SUP.
- 5.4 Mongolia proposed that the List of Valid NOTAM should be discontinued, and the checklist of AIP SUP be included in the Checklist of NOTAM. In this way the necessary information would be provided in only one product instead of two.
- 5.5 Mongolia noted that this issue had also been highlighted at a global AIM conference as being among the top 10 requests for improvements as communicated by airline representatives. It was proposed by Mongolia that this proposal be endorsed and sent to AIS-AIMSG for consideration.
- 5.6 Japan advised the meeting that the Chair of AIS-AIMSG was aware of Mongolia's proposal, and that this proposal was in line with matters under consideration by the SG. The information would be coordinated with AIS-AIMSG for their further consideration.
- 5.7 Australia advised that they had ceased producing printed copies of lists of valid NOTAM, and had registered a Difference with ICAO. Australia had also recently removed AIP SUPP and AIC from the monthly NOTAM checklist, replacing them with a reference to a web link to AIP SUPP and AIC.

#### Update on Mongolia's Proposal from AAITF/8 (IP/08)

- During AAITF/8 Mongolia presented information highlighting the need for a dynamic and open source of pre-flight information in the Asia/Pacific Region which could serve as a back-up for PIB preparation and significantly improve the quality and timeliness of pre-flight information. The AAITF/8 meeting had noted that the proposal could provide a good opportunity for States lacking resources.
- Since the last task force meeting Mongolia had expanded its NOTAM database and sent NOTAM exchange requests to APAC States several times. NOTAM exchange with 22 States had not occurred. During 2014 NOTAM exchange requests were being sent to States in other regions to further expand the NOTAM database. As there was no response to some of the requests, ICAO Regional Officer's assistance was requested.
- 5.10 Currently the Mongolian NOTAM database had NOTAM from 21 States. Any State interested in providing their pre-flight information service using Mongolia's database could contact Mongolia on email address: <a href="mailto:ais@mcaa.gov.mn">ais@mcaa.gov.mn</a>.

- Mongolia had also offered to host a website for APAC States to share knowledge and information related to the AIS-AIM Transition steps. The small working group established by AAITF Decision 8/1 for the development of guidance material could also use the website to provide information.
- 5.12 Mongolia needed a voluntary coordinator for coordinating information and experience between States. Assistance from the ICAO Regional Officer and the small working group was requested as most States did not reply to emails.
- 5.13 The Secretariat undertook to investigate whether the scope and capacity of the ICAO Regional Office could support these activities, and to seek advice on the setting up of informal groups. Regarding some reservations that were expressed about the possible use of social media websites for the exchange of information and experience between States, the example was raised of the PANS-OPS community's dedicated web-site set up for this purpose.

#### Human Resource Development for AIM (WP/07)

- Vietnam presented information discussing human resource development for AIM. The transition from AIS to AIM was driven by progressive technological enhancements, which had implications for human resource management. With the transition, there was a need for new competencies (knowledge, skill and attitude KSA) as the attributes required to perform the job.
- 5.15 ICAO Annex 15 Article 3.7.4 included standards relating competencies, KSA, training, competency assurance and assessment, and record-keeping. To comply with the standards and also prepare for AIM transition, AIS staff needed training in: the safety impact of aeronautical information, AIS functions/AIM principles, institutional and legal background, key principles of automated AIS, and future developments.
- 5.16 There were currently no AIS and/or AIM courses available in many countries. Some training existed in some States globally, but other States had limited access to AIS classroom courses abroad due to availability and cost issues.
- 5.17 Staffing issues that should be focused on before conducting training included lack of English language proficiency, established staff reluctance to change, and the issue of attracting new staff with high requirements to a low income occupation.
- 5.18 Solutions proposed included ICAO working closely with States and industry with focus on human resource planning addressing all types of training. Functions and roles of AIM staff should be defined.
- 5.19 The AIM Training Development Manual mentioned in Annex 15 but not yet published needed to be finalized and applicable as it was basis for member states to develop training plans. AIM exchange training should also occur between States.
- 5.20 The Secretariat advised that the Training Manual was in the late stages of preparation, and was expected to be finalized in 2014. It was also noted that CANSO and the International Federation of Aeronautical Information Management Associations (IFAIMA) had done some work on competencies for AIM officers.
- 5.21 The Chair reflected that skills and abilities in information technology were very important for the transition to AIM, and recruited IT engineers had proven to very quickly adapt to AIS and aviation.

#### Results of the Survey of OPADD Differences (WP/08 and Flimsy 5)

- Japan provided the results of the AAITF survey of differences between States' NOTAM operations and those described in the Asia/Pacific Region Operating Procedures for AIS Dynamic Data (OPADD). The meeting noted that the EUROCONTROL OPADD, upon which the Asia/Pacific OPADD was based, would be reviewed in November 2014.
- 5.23 Thirteen APAC administrations responded to the AAITF survey:

Australia, Bangladesh, Fiji, Hong Kong China, Macao China, Japan, Democratic People's Republic of Korea (DPRK), Republic of Korea, Malaysia, Mongolia, Pakistan, Singapore, Thailand.

- 5.24 The results of the survey are summarized in **Appendix E**. Red meant not compliant and yellow meant partially compliant. Hong Kong China and Macao China's regional characteristics were not included.
- 5.25 Many administrations had operational differences from the articles in OPADD, including:
  - 2.3 Detailed procedure for NOTAM differences in 6 of the 13 respondent administrations
  - 3.13 Procedures for the creation of NOTAM series 'T' 9 administrations did not conform with OPADD, and several did not have the processing ability;
  - 3.19 NOTAM items 5 administrations had operational differences;
  - 5 Procedures for SNOWTAM, ASHTAM and special conditions Several administrations issued NOTAM instead of SNOWTAM and/or ASHTAM. Thailand has the ability to handle BIRDTAM
- 5.26 NOTAM series 'T', SNOWTAM, ASHTAM and BIRDTAM were not commonly used in the APAC Region.
- 5.27 The following differences with OPADD articles could require action:

#### 2.3.18-21 Item D)

- Bangladesh, Hong Kong China and Singapore follow Annex 15, using free text instead of syntaxes specified in the OPADD. Australia and Japan do not fully comply with the OPADD.
- There may be no need to strictly specify the syntax of item D). It was necessary to consider the computer-friendly item D) or abolishment of it before the advent of the SWIM environment.

#### 2.3.23 Item F) and G):

 Australia included the fields for FIR OBST (QO), but the OPADD restricts the fields to QR and QW. Japan also does not restrict the use of the fields only to QR and QW.

Comment: In Doc. 8126, the fields were normally applicable to QR and QW, but could be used for any other applicable subjects. The reason the OPADD imposed such restriction was not described in the OPADD. If there was no significant reason applicable to the APAC region, the restriction should be lifted.

#### 2.3.7 Qualifier 'TRAFFIC'

- In the example of article 2.3.7.3, the NOTAM Code for 'VFR REPORTING POINT ID CHANGED' was 'QAPCI' and the given NSC 'Traffic' Qualifier for 'QAPCI' was 'IV'. However, the subject was VFR reporting point, so this example described the use of 'V' instead of 'IV'.
- Macao China follows NSC in Doc. 8126, so the NOTAM Code would be 'QAPXX' because NSC expects no exception.

Comment: Macao China requested ICAO to clarify this.

The OPADD was guidance, so this kind of usage of the codes should be described in NSC in Doc. 8126. Another option was to make changes to the example in the OPADD to strictly comply with NSC. That means, for 2.3.7.3, the code for 'VFR REPORTING POINT ID CHANGED' was 'QAPXX'...

#### 2.4.3 Specific procedure related to NOTAMC creation:

• In 2.4.3.4, 'CN' and 'HV' for 4th and 5th letters of NOTAM Code are not present.

Comment: They should be included in the next version of the OPADD.

#### 2.7 Trigger NOTAM

- Hong Kong China issued non-AIRAC AIP AMDT only. AIRAC information was issued as AIRAC AIP SUP.
- Singapore issued AIRAC information as AIRAC AIP SUP and incorporated it in AIP AMDT after the implementation date.
- In Australia, Trigger NOTAM remained in force until SUP was cancelled. Trigger NOTAM for AIC was also issued.
- Japan sets the end of SUP in item C) when the period was longer than 14 days.

Comment: There was a diverse range of usage about Trigger NOTAM. In the SWIM environment and the use of AIXM 5.1 or higher, Trigger NOTAM would not be needed.

#### 2.8 NIL Notification

- This article was not applicable to Hong Kong China.
- The 14 days period was the same as article 2.7, but item C) of the example in 2.8.3 (...2359) was different from that in 2.7.2.4 (...0000).
- Macao China used 2359 for Trigger NOTAM and NIL Notification.

  Comment: The duration was the same as the Trigger NOTAM, so the item C) in both examples should be identical, 0000 or 2359.

#### 5.28 Other findings from items in the survey sheets were as follows:

- Administrations completely conforming with OPADD:
  - Republic of Korea
  - Malaysia.
  - Democratic Republic of Korea would be fully compliant with the OPADD in 2015.
  - Mongolia's system was compliant with the OPADD.

#### • System constraint:

- In Australia and Japan, many deviations from the OPADD came from system restrictions.
- Japan had a plan to be fully compliant with the OPADD in 2018 by system upgrade.
- Mongolia's system was flexible in input data.

#### • Unique Regional characteristics:

- Macao China was in China's FIR and some of its SID/STAR were stretched into Hong Kong China's AOZ.
- There were unique styles of issuing NOTAM.

#### • 'T' series NOTAM

- Fiji was capable of handling 'T' series, but did not use it.
- Australia, Hong Kong China, Japan, Macao China and Thailand did not issue 'T' series.
- Other administrations appeared to have the ability to issue 'T' series, but there were no 'T' series issued in APAC region.

#### PIB

 Australia, Bangladesh, Hong Kong China, Macao China, Mongolia, and Singapore report the absence of certain search functions such as RQO.

5.29 A number of changes to the Asia/Pacific Region OPADD were recommended. The meeting agreed that, rather than making immediate amendments to the Asia/Pacific Region OPADD, the recommended changes (**Appendix F**) would be forwarded to EUROCONTROL for consideration in their OPADD review. The subsequently updated EUROCONTROL OPADD would then be proposed for adoption as the new Asia/Pacific Region OPADD, subject to the agreement of EUROCONTROL and assessment of its suitability by AAITF.

#### Establishment of the Information Management Panel (IP/09)

- 5.30 The Secretariat presented information on the establishment of the Information Management Panel (IMP) by the ICAO Air Navigation Commission. The IMP would undertake tasks relating to the global transition from AIS to AIM, based upon Recommendations 3/1, 3/2, 3/3 and 3/9 of the Twelfth Air Navigation Conference in 2012 (AN-Conf/12).
- 5.31 The following Asia/Pacific States had been invited to nominate for membership on the IMP:

Australia, China, India, Japan, Singapore.

5.32 The terms of reference of the IMP and additional information relating to panels are provided in **Appendix G** to this report.

#### ICARD Update (WP/09)

- 5.33 The Secretariat presented an update on the International Codes and Route Designators (ICARD) application and participation by Asia/Pacific States, including discussion of procedural issues related to the allocation of waypoint names in flight procedures and ATS routes, and duplicated waypoint names in dangerous proximity.
- 5.34 ICARD was developed by EUROCONTROL and the ICAO EUR/NAT Regional Office to support the allocation of five-letter name-codes (5LNC) used for the identification of significant points for ATS routes and designators for ATS routes to ensure that the global allocation of 5LNC complied with the Annex 11 requirements. The application was now available for all ICAO States, and was the global repository and source of 5LNC. The ATS route designator function was only available within EUR Region.
- 5.35 The ICARD application was the method by which States notified the ICAO Regional Office of their requirements for 5LNC. All requests for new 5LNC, or changes or deletions of existing 5LNC, were assessed for approval by a Regional Office ICARD\_5LNC\_MANAGER.
- 5.36 ICARD\_5LNC\_PLANNERs were State nominated individuals responsible for sourcing waypoints for each state from the blocks of codes allocated in ICARD to the State by the ICARD\_5LNC\_MANAGER. In all cases where personnel of a State Regulator or Air Navigation Service Provider were responsible for the allocation of 5LNC for ATS routes, Standard Instrument Departures (SIDs), Standard Terminal Arrival Routes (STARS) or Instrument Approach and Landing (IAL, including RNAV/RNP approaches), a minimum of 2 individuals should be registered as ICARD\_5LNC\_PLANNER. Instructions for the registration process are provided in **Appendix H** to this report.
- 5.37 Traffic growth in the Asia/Pacific Region had resulted in traffic demand exceeding airspace capacity in many cases. The most effective initial response to this situation was to increase capacity, which often involved ATS route re-design and implementation of new routes, requiring the efficient and Annex 11-compliant allocation of waypoint names. There was also an increasing demand for waypoint names for implementation of new and revised RNAV and RNP flight procedures.

5.38 Several Asia/Pacific Region States/Administrations did not have any registered ICARD\_5LNC\_PLANNER. If these States or administrations allocated 5LNC outside the ICARD system they were not compliant with the requirements of Annex 11. **Table 2** provides a list of registered 5LNC\_PLANNERS at May 2013 and June 2014.

G	5LNC PLANNER		
State/Administration	May 2013	June 2014	
Afghanistan	1	1	
Australia	2	5	
Bangladesh	1	1	
Bhutan			
Brunei Darussalam		1	
Cambodia	1	1	
China	1	1	
Hong Kong, China	2	2	
Macao, China			
Cook Islands			
DPR Korea			
Fiji	1	1	
India	2	2	
Indonesia	1	1	
Japan	2	2	
Kiribati		1	
Lao PDR	1	1	
Malaysia	1	1	
Maldives			
Marshall Islands			
Micronesia			
Mongolia			
Myanmar			
Nauru			
Nepal			
New Caledonia	1	1	
New Zealand		1	
Pakistan	1	1	
Palau			
Papua New Guinea	1	1	
Philippines	1	1	
Polynesie Française	2	2	
Republic of Korea	1	1?	
Samoa			
Singapore	2	2	
Solomon Islands			
Sri Lanka	2	2	
Thailand	1	1	
Tonga			
Timor-Leste		1	
Vanuatu			
Viet Nam	1	2	
1	1		

Table 2: Asia/Pacific Region Registered ICARD\_5LNC\_PLANNERs

- 5.39 **Appendix I** lists the currently registered ICARD\_5LNC\_PLANNERs for the Asia/Pacific Region. States were requested to check the list to ensure the details were correct, and to notify Bangkok Office of any change.
- 5.40 When submitting a selected 5LNC, Planners were required to conduct a proximity check. This involved using either the map or list function buttons to check for <u>like-sounding</u> 5LNC within 250NM for TMA waypoints or 500NM for En-route waypoints. The proximity check function required the cartographical coordinates of the waypoint to be entered correctly.
- 5.41 If the proximity check indicated that any radiotelephony confusion between any existing waypoints and the proposed waypoint could occur, a different waypoint name must be selected from the block of available codes. The ICARD 5LNC\_MANAGER would independently conduct another proximity check during the approval process. Any proposed waypoint found to have potential radiotelephony confusion with another waypoint would be rejected.
- There had been cases where requests for 5LNC included indication that the proximity check has been completed, but a check by the 5LNC\_MANAGER revealed like-sounding waypoints in proximity to the requested location. Recognizing that assessment of "like-sounding" should include consideration of the complex aviation communications environment, and the widely varied language background of pilots and air traffic controllers, it was recommended that personnel with appropriate levels of experience in operational air-ground-air communications were utilized to ensure to the maximum extent possible that selected 5LNC could not be confused with other like-sounding waypoints.
- Recent occurrences suggest that States were allocating 5LNC for use in flight procedure design before the flight procedure had been validated. This had resulted in follow-up requests to input corrected coordinates for the 5LNC that had already been approved in the ICARD system. The ICARD guidelines did not permit changes to the coordinates of allocated 5LNC. The process for designing and implementing ATS routes and flight procedures should ensure that the final location of the waypoint was fully validated before then requesting the 5LNC in ICARD. ICAO had been working to progressively eliminate duplicated 5LNC globally. States could become aware that a duplicate code existed either by airspace user reports through the safety reporting system, or by email from the 5LNC Manager. Duplicate codes were required to be replaced. Replacement of a duplicate code with a new code was required to be in accordance with Annex 15 change notification requirements.
- In collaboration with industry partners ICAO Headquarters had identified a number of duplicates that were considered by industry to be dangerously proximate. ICAO Regional Office had been tasked with coordinating the elimination of these duplicates. The identified dangerous-proximity duplicated 5LNC for the Asia/Pacific Region are provided in tabular and graphical representation at **Appendix J**.
- 5.45 ICARD\_5LNC\_PLANNERs for States identified in **Appendix J** should in the first instance work directly with other relevant States to agree on replacing duplicates with other 5LNC selected by ICARD. ICAO Regional Office would coordinate with States where required.
- 5.46 The meeting agreed to the following Draft Conclusion:

#### Draft Conclusion AAITF 9/3: Duplicated 5LNC in Dangerous Proximity

That States take coordinated action to replace duplicated 5LNC identified to be in dangerous proximity as detailed in **Appendix J** to the report.

- 5.47 States were required to notify the ICAO Regional Office of any request for ATS Route designators. A database of available route designators for the Asia/Pacific Region was maintained by the Regional Office, and manually updated with each request. The process was also dependent on the parallel activity of progressing proposals for amendment (PfA) to the ATS Routes table in the Regional Air Navigation Plan. The process was laborious and time-consuming for States and the Regional Office, and potentially induced handling errors. Given the expected increase in requests for new ATS route designators to facilitate necessary airspace capacity and efficiency outcomes, a more appropriate and up-to-date method was needed. States should be aware of the limitations of the current system available in the Asia/Pacific Region. The ICARD ATS Route Designators allocation function was not available to this Region.
- 5.48 The meeting agreed to the following Draft Conclusion:

### Draft Conclusion AAITF 9/4: Access to ICARD ATS Route Designators Function

That, taking into consideration the rising demand for ATS route designators resulting from airspace capacity and efficiency changes and implementation of PBN routes and airspace, ICAO takes steps to provide Asia/Pacific ICARD\_5LNC\_MANAGERS and ICARD\_5LNC\_PLANNERS with access to the ATS Route Designators function of the ICARD application

5.49 ICARD 5LNC code requests would normally be actioned within 1 week of submission. If there was any significant delay, or if approval was required urgently, ICARD\_5LNC\_PLANNERs should contact the ICAO Regional Office 5LNC Manager.

#### AIM Transition Guidance Material

- 5.50 It was apparent during the meeting discussions that lack of AIM transition guidance material was causing significant concern. There had been delays in the production of global ICAO guidance material, the most significant being the updated Doc 8126 AIS Manual, the new Doc 9839 Quality Manual and Doc 9991 Training Manual. Regional AIM guidance material had not yet been produced by the AAITF small working group.
- 5.51 The lack of global guidance material was proving to be a significant obstacle in States' AIM implementation progress, and would present considerable challenges to their efforts to implement AIM transition steps within timeframes defined by Annex 15 applicability and the Asia/Pacific Seamless ATM Plan performance objectives.
- 5.52 It was noted that any independently developed regional guidance material could risk encouraging States to implement AIM in ways that was either not supported by or running counter to the global guidance that had previously been expected in 2013, but was now anticipated in the  $2^{nd}$  or  $3^{rd}$  Quarter 2014.
- 5.53 The meeting agreed to continue work on AIM transition guidance material. 4 priority AIM transition steps were identified: P-17 Quality, P-16 Training, P18 Agreements with data originators, and P-11 Electronic AIP.
- 5.54 The meeting commenced preparing guidance material in the form of a checklist of considerations, together with brief explanatory material, for each of the four identified steps. A working draft is provided at **Appendix K**. Contributions were provided by Australia, India, Japan, Malaysia, Singapore and Thailand. Further work would continue offline, including a comparative assessment against the global guidance material as and when it became available.

#### AIM Transition Step P-07 Unique Identifiers

- 5.55 In discussion it became apparent that the meeting did not have a clear understanding of the AIM transition step P-07 Unique Identifiers. Australia undertook to conduct some research, and subsequently was able to advise that this step referred to *universal unique identifiers* (UUID) which were artificial identifiers of aeronautical features in aeronautical data exchange models. UUID did not identify the feature itself, but instead uniquely identified the data that represented the feature in digital AIM systems.
- 5.56 The meeting's attention was drawn to the document *AIXM 5 Feature Identification* and *Reference use of xlink:href and UUID*, which could be viewed on the AIXM website at <a href="http://www.aixm.aero/gallery/content/public/AIXM51/AIXM\_Feature\_Identification\_and\_Reference-1.0.pdf">http://www.aixm.aero/gallery/content/public/AIXM51/AIXM\_Feature\_Identification\_and\_Reference-1.0.pdf</a> .

#### Copyright Protection Mechanisms

- 5.57 The meeting was asked for information on available mechanisms for the protection of copyright of information provided to another State and potentially then being provided to a third-party.
- 5.58 Excerpts from Annex 15 relating to exchange of information between States and copyright protection were provided for consideration by the meeting. General comments made included:
  - The State originating the aeronautical data could be foregoing revenue in the event of copyright infringement;
  - The State requesting aeronautical information had a responsibility to ensure that the copyright status of the document was known when it was requested;
- 5.59 In response to the question of whether copyright protection agreements were either required or possible between States exchanging AIP data, the Secretary undertook to make some further enquiries.

#### Agenda Item 6: Review of the Task List

6.1 The meeting agreed to the updated task list included as **Appendix L** to this report.

#### **Agenda Item 7: Date and Venue for the Next Meeting**

7.1 The next meeting would be conducted during the first half of 2015, the date and venue to be advised.

#### Closing of the meeting

8.1 The meeting Chair thanked all participants for their contribution to a productive meeting

### AAITF/9 Appendix A to the Report

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International Civil Aviation Organization

The Ninth Meeting of the Asia/Pacific Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/9)

Pattaya, Thailand, 24 – 27 June 2014

## LIST OF WORKING PAPERS (WPs) and INFORMATION PAPERS (IPs)

(Presented by the Secretariat)

## **WORKING PAPERS**

Number	AGENDA	WORKING PAPERS	PRESENTED BY
WP/1	1	Provisional Agenda	Secretariat
WP/2	2	Related Meeting Outcomes	Secretariat
WP/3	3	AIS – AIM Related Air Navigation Deficiencies	Secretariat
WP/4	4	Regional AIM Transition Progress and Progress Reporting	Secretariat
WP/5	4	Quality and Data Quality and Integrity Monitoring	Australia
WP/6	5	List of Valid NOTAM	Mongolia
WP/7	5	Human Resource Development for AIM	Viet Nam
WP/8	5	Results of the Survey of OPADD Differences	Japan
WP/9	5	ICARD Update	Secretariat
WP/10	6	Review of the AAITF Task List	Secretariat

## **INFORMATION PAPERS**

Number	AGENDA	INFORMATION PAPERS	PRESENTED BY
IP/1	-	List of Working Papers (WPs) and Information Papers (IPs)	Secretariat
IP/2	2	ICAO AIS-AIMSG Progress	Secretariat
IP/3	4	Electronic AIP China	China
IP/4	4	Cambodia AIS to AIM Transition Update	Cambodia
IP/5	4	FAA System Wide Information Management (SWIM) Program	USA
IP/6	4	Fiji AIS to AIM	Fiji
IP/7	4	AIS – AIM in Indonesia	Indonesia
IP/8	5	Update on Mongolia's Proposal from AAITF/8	Mongolia
IP/9	5	Establishment of the Information Management Panel	Secretariat
IP/10	4	Implementation Process for AIS – AIM	Lao PDR

# AAITF/9 Appendix C

## REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE ATM FIELD IN THE ASIA/PACIFIC REGION (EXTRACT)

Identif	ication		Deficience	eies		Corrective Acti	ion	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
	Bangladesh	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Bangladesh	TBD	A
	Bhutan	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	2/7/1999	Data conversion completed, but not published		Bhutan	TBD	A
WGS-84	Brunei Darussalam	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Brunei Darussalam	TBD	A
	Cook Islands	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Cook Islands	TBD	A
	Kiribati	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented				Kiribati	TBD	A

Identif	ication		Deficienc	cies		Corrective Act	ion	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
	Lao PDR	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Lao PDR	TBD	A
	Maldives	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Maldives	TBD	A
WGS-84	Marshall Islands	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Marshall Islands	TBD	A
	Micronesia	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Micronesia	TBD	A
	Nauru	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented		Conferring with consultant		Nauru	TBD	A

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Identi	fication		Deficienci	es		Corrective Act	ion	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
	Palau	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Palau	TBD	A
	Philippines	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Philippines	TBD	A
WGS-84	Samoa	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Samoa	TBD	A
	Sri Lanka	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Sri Lanka	TBD	A
	Thailand	Requirements of Paragraph 3.7.1 of Annex 15 WGS-84 - Not implemented	24/6/2014			Thailand	TBD	A
	Tonga	Requirements of Paragraph	24/6/2014			Tonga	TBD	A

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Identif	ication		Deficienc	ies		Corrective Acti	on	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
WGS-84		3.7.1 of Annex 15 WGS-84 - Not implemented						
	Vanuatu	WGS-84 - Implemented at main airports	2/7/1999			Vanuatu	1999	A
	Cook Islands	Requirements of Chapter 4 of Annex 15 AIP Format - not implemented	7/7/99			Cook Islands	ATM/AIS/SAR/G/16 (June 2006) updated - AIP COOK ISLANDS in new format in progress with assistance of New Zealand	A
AIP Format	Kiribati	Requirements of Chapter 4 of Annex 15 AIP Format - not implemented	7/7/99			Kiribati	ATM/AIS/SAR/SG/1 8 (June 2009) was advised AIP in draft stage	A
	Nauru	Requirements of Chapter 4 of Annex 15 AIP Format - not implemented	7/7/99			Nauru	ATM/AIS/SAR/SG/1 8 (June 2008) was advised work soon to start	A
	Papua New Guinea	Requirements of Chapter 4 of Annex 15 AIP Format - not implemented	7/7/99			Papua New Guinea	TBA	A

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Identif	ication		Deficienc	ies		Corrective Act	ion	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
	Afghanistan	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Afghanistan	TBD	A
	Bangladesh	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Bangladesh	TBD	A
Aeronautical Information Service Quality Management System	Bhutan	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Bhutan	TBD	A
	Brunei Darussalam	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Brunei Darussalam	TBD	A
	Cambodia	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Cambodia	TBD	A

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Identif	ication		Deficienc	ies		Corrective Act	ion	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
	Cook Islands	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Cook Islands	TBD	A
Aeronautical Information Service Quality Management	DPR Korea	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			DPR Korea	TBD	A
System	Indonesia	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Indonesia	TBD	A
	Kiribati	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Kiribati	TBD	A
	Lao PDR	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management	24/6/2014			Lao PDR	TBD	A

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Identif	ication		Deficiencie	es		Corrective Act	ion	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
		System - Not implemented						
	Maldives	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Maldives	TBD	A
Aeronautical Information Service Quality Management System	Marshall Islands	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Marshall Islands	TBD	A
	Micronesia	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Micronesia	TBD	A
	Myanmar	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Myanmar	TBD	A
	Nauru	Requirements of Paragraph 3.2.1 of Annex 15 Quality	24/6/2014			Nauru	TBD	A

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Identif	ication		Deficienc	ries		Corrective Act	ion	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
		Management System - Not implemented						
	Nepal	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Nepal	TBD	A
Aeronautical Information Service Quality Management System	Pakistan	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Pakistan	TBD	A
	Palau	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Palau	TBD	A
	Papua New Guinea	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Papua New Guinea	TBD	A

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Identif	ication		Deficienc	ries		Corrective Act	ion	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
	Philippines	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Philippines	TBD	A
Aeronautical Information	Samoa	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Samoa	TBD	A
Service Quality Management System	Solomon Islands	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Solomon Islands	TBD	A
	Sri Lanka	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Sri Lanka	TBD	A
	Thailand	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Thailand	TBD	A

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Identif	ication		Deficienci	es		Corrective Act	ion	
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
Aeronautical Information	Timor Leste	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Timor Leste	TBD	A
Service Quality Management System	Tonga	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Tonga	TBD	A
	Vanuatu	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Vanuatu	TBD	A
	Viet Nam	Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	24/6/2014			Viet Nam	TBD	A

## **State AIS AIM Transition Table**

### Phase 1

P-03 — AIRAC adherence monitoring

P-04 — Monitoring of States' differences to Annex 4 and Annex 15

P-05 — WGS-84 implementation

P-17 — Quality

### Phase 2

P-01 — Data quality monitoring

P-02 — Data integrity monitoring

P-06 — Integrated aeronautical information database

P-07 — Unique identifiers

P-08 — Aeronautical information conceptual model

P-11 — Electronic AIP

P-13 — Terrain

P-14 — Obstacles

P-15 — Aerodrome mapping

## Phase 3

P-09 — Aeronautical data exchange

P-10 — Communication networks

P-12 — Aeronautical information briefing

P-16 —Training

P-18 — Agreements with data originators

P-19 — Interoperability with meteorological products

P-20 — Electronic aeronautical charts

P-21 — Digital NOTAM

Date Last Amended: 15 July 2-14

State Name = No reports since AAITF/8

= progress reported

= amended progress reported

Part = AIP Book, but no AIP SUP or AIC

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	P-03	. 36 Nov P-04	P-05	P-17	P-01	P-02	P-06	endment P-07	P-08	P-11	P-13	P-14	P-15	P-09	P-10	P-12	P-16	P-18	P-19	P-20	P-21
Afghanistan	P-05	P-04	P-05	P-17	P-01	P-02	P-00	P-07	P-06	part	P-13	P-14	P-13	P-09	P-10	P-1Z	h-10	h-10	P-19	P-20	P-Z1
Australia	V	V	V	V	80%	V	V	V	60%	Link	V	75%				10%	60%			90%	5%
Bangladesh	V	V	25%	V	60%	60%	70%	٧ V	0076	Part	V	60%			20%	10/6	0078		20%	3076	3/0
Bhutan	V	V	23/0		0076	0076	7070	V		rait		0076			20/0				20/0		
Brunei Darussalam																					
Cambodia	V	V	V	10%						Part					70%		40%				
China	V	V	V	√ √						Link					7070		√	٧		V	
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Macao, China	V	V	V	V	V	V				Link	V	V					4070	V			
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DPR Korea			V														•				
Fiji	V	V	V				V	V	V			V			V	V	V				
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Kiribati	V	V	V	V	ý	ý	V	V	V	LIIIIX	0070	3070		0070	2070	0070	V	٧		2070	2070
Lao PDR	V	V	25%																		
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Marshall Islands										LIIIK											
Micronesia																					
Mongolia	V	V	V	V	V	V	V	80%	V	Link	65%	28%	5%	20%	10%	٧	90%	V		V	
Myanmar	V	V	V	V	√ √	√ √	20%	20%	20%	Link	√ √	√ √	20%	20%	50%	50%	80%	80%	80%	80%	20%
Nauru	٧	V	V		•	•	2070	2070	2070	LITTIK	•	•	2070	2070	3070	3070	0070	0070	0070	0070	2070
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Pakistan	٧	٧	٧									٧		٧	٧	٧		٧			V
Palau	•	•	•							part		•		•	•	•		•			
Papua New Guinea	V	V	V	90%				٧		pare						10%					
Philippines	٧	٧	60%	50%	٧	50%	V	٧	V	50%						2070					
Republic of Korea	٧	٧	V	√	V			٧	<b>V</b>								٧	V		40%	90%
Samoa	-	-																-			00,1
Singapore	V	V	V	V	٧	٧	50%	V		Link	40%	40%	25%	V	٧	V	V	V			
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Sri Lanka	V	V	90%	90%			10%			Link					25%	25%	15%	25%			
Thailand	٧	٧	80%	40%	40%	30%				Link	25%	25%		10%	5%			3,3			
Timor Leste			√																		
Tonga																					
Vanuatu																					
Viet Nam	٧	75%	٧	25%	50%	50%	50%		٧	Link				٧	٧		70%	50%			
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France <sup>2</sup>	٧	٧	٧	٧	٧	√		٧		Link											

<sup>&</sup>lt;sup>1</sup> Includes American Samoa, Guam, Johnston, Kingman, Midway, Mariana, Palmyra, Wake

<sup>&</sup>lt;sup>2</sup> Includes French Polynesia, New Caledonia, Wallis and Futuna Islands

OPADD articles	Australia	Bangladesh	China	Fiji	Hong Kong	Japan	DPRK	Republic of Korea	Macao	Malaysia	Mongolia	Pakistan	Singapore	Thailand
1 INTRODUCTION				,							. 8		3.4	
1.1 Preface														
1.2 Context														
1.3 Purpose														
1.4 Scope														
1.5 Applicability														
1.6 Referenced Documents														
2 NOTAM CREATION 2.1 Introduction														
2.2 Basic Rules for NOTAM Creation														
2.3 Detailed Procedures														
2.3.1 NOTAM Series Allocation														
2.3.2 NOTAM Number														
2.3.3 NOTAM Type														
2.3.4 NOTAM Qualification Item Q) –														
General Rules 2.3.5 Qualifier 'FIR'														
2.3.6 Qualifier 'NOTAM CODE'														
2.3.7 Qualifier 'TRAFFIC'														
2.3.8 Qualifier 'PURPOSE'														
2.3.9 Qualifier 'SCOPE'														
2.3.10 Qualifiers 'LOWER/UPPER'														
2.5.10 Quantitots LOWEROUTTER														
2.3.11 Qualifier 'GEOGRAPHICAL														
REFERENCE' – General Rules														
2.3.12 Qualifier 'GEOGRAPHICAL														
REFERENCE' – Co-ordinates														
2.2.12.0 1/2 (CEOCD   DUIGH														
2.3.13 Qualifier 'GEOGRAPHICAL REFERENCE' – Radius														
2.3.14 Item A) – Single Location (FIR														
or AD)														
2.3.15 Item A) – Multi-Location (FIR or AD)														
2.3.16 Item B) – Start of Activity														
2.3.17 Item C) – End of Validity														
2.3.18 Item D) – Day/Time Schedule –														
General Rules														
2.3.19 Item D) – Day/Time Schedule –														
Abbreviations and Symbols Used														
2.3.20 Item D) – Day/Time Schedule –														
Special Cases														
2.3.21 Item D) – Day/Time Schedule –														
Examples.														
2.3.22 Item E) – NOTAM Text														
2.3.23 Items F) and G) - Lower and														
Upper Limit														
2.4 Creation of NOTAMR and														
NOTAMC.				<del>                                     </del>										
2.4.1 General Procedures Related to														
NOTAMR and NOTAMC Creation														
2.4.2 Specific Procedures Related to														
NOTAMR Creation														
2.4.3 Specific Procedures Related to														
NOTAMC Creation	ļ													
2.5 Checklist Production 2.5.1 Checklists – General	<del> </del>													
	<del> </del>													
2.5.2 Checklist Qualification – Item Q)	1													
2.5.3 Checklist Format – Item E)														
2.5.4 Checklist Errors														
2.6 Publication of Information by														
NOTAM, AIP Amendment or AIP	1													
Supplement	ļ													
2.6.1 Permanent information shall not	1													
be distributed by means of a NOTAM only	1													
2.6.2 Publication of permanent	<del>                                     </del>													
information by NOTAM.	1													
<u> </u>									•	•		•	•	

OPADD articles	Australia	Bangladesh	China	Fiji	Hong Kong	Japan	DPRK	Republic of Korea	Macao	Malaysia	Mongolia	Pakistan	Singapore	Thailand
2.6.3 Incorporation of NOTAM				-										
information in AIP Amendment														<del> </del>
2.6.4 Incorporation of NOTAM information in AIP Supplement	1													I
2.7 Trigger NOTAM and Related														
Procedures	1		1											I
2.7.1 Trigger NOTAM – Definition														
2.7.2 Trigger NOTAM – General Rules														
2.7.3 Trigger NOTAM relative to AIRAC AIP AMDT														
2.7.4 Trigger NOTAM relative to AIP SUP (AIRAC and Non-AIRAC)														
2.7.5 Notification of changes to AIP SUP														
2.8 NIL Notification														
3 NOTAM PROCESSING														
3.1 Introduction														
3.2 Objective														
3.3 Applicability	<b></b>													
3.4 Procedures for the processing of NOTAM														
3.5 General Principles	<del>                                     </del>													
3.6 Conversion of original NOTAM Class I														
3.7 Triggering of printed publications														
3.8 Translation of NOTAM														
3.9 Syntax correction														
3.10 Data correction														
3.11 Editing	<b>—</b>													
3.12 Procedures for dealing with NOTAM Subject to Query	1													l
3.13 Procedures for the creation of														
NOTAM Series 'T'														
3.13.1 General procedures														
3.13.2 Trigger NOTAM in Series 'T'														
3.13.3 NOTAM in Series 'T' 3.14 Procedures for Correction of														
NOTAM	1													
3.15 NOTAM Verification														
3.16 NOTAM Identification														
3.16.2 Publishing NOF Identification														
3.16.3 NOTAM Series Allocation														
3.16.4 NOTAM Number														
3.16.5 NOTAM Sub-Number (Multi-	1		I											
part NOTAM Type														
3.17 NOTAM Type														
3.18 NOTAM Qualification (Item Q)			<u>                                       </u>											<u>                                       </u>
3.18.1 General rule														
3.18.2 Qualifier 'FIR'														
3.18.3 Qualifier 'NOTAM CODE'														
3.18.4 Qualifier 'TRAFFIC'. 3.18.5 Qualifier 'PURPOSE'			<del>                                     </del>											
3.18.6 Qualifier 'SCOPE'														
3.18.7 Qualifiers 'LOWER/UPPER'														
3.18.8 Qualifier 'GEOGRAPHICAL REFERENCE'														
3.19 NOTAM Items			<del>                                     </del>											
3.19 NOTAM Items  3.19.1 Item A) – Location 'FIR/AD' –									<b> </b>	<del> </del>		<del> </del>	<del> </del>	
General			1											l
3.19.2 Item A) – Location 'FIR/AD' – Single-Location NOTAM														
3.19.3 Item A) – Location 'FIR/AD' – Multi-Location NOTAM														
3.19.4 Item B) – Start of Activity														
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OPADD articles	Australia	Bangladesh	China	Fiji	Hong Kong	Japan	DPRK	Republic of Korea	Macao	Malaysia	Mongolia	Pakistan	Singapore	Thailand
3.19.5 Item C) – End of Validity														
3.19.6 Item D) – Day/Time Schedule														
3.19.7 Item E) – NOTAM Text														
3.19.8 Items F) and G) – Lower and Upper Limit														
3.20 Procedures Related to NOTAM														
'R' Processing														
3.21 Procedures Related to NOTAM														
'C' Processing 3.22 Checklist Processing														
3.22.1 General Principles														
3.22.2 Checklist Received as a														
NOTAM														
3.22.3 Checklist Not Received as a NOTAM														l l
3.23 Missing NOTAM														
3.24 NOTAM Deletion														
4 DATABASE COMPLETENESS														l l
AND COHERENCE MESSAGES 4.1 General Principles														
4.2 Request for the Repetition of														
NOTAM (RQN)														
4.2.1 Codes and Symbols used 4.2.2 Examples of the Request for	+													
NOTAM														
4.3 Request for the original version of														
NOTAM (RQO)														
4.3.1 General Specification 4.3.2 Codes and Symbols used														
4.3.3 Example of the Request for														
Original NOTAM														
4.4 Request for the Repetition of ASHTAM (RQA)														
4.4.1 Codes and Symbols used														
4.4.2 Examples of the Request for ASHTAM														
4.5 Content of the Reply Messages														
(RQR)														
4.5.1 General Specification 4.5.2 Standard Expressions in Reply														<del>                                     </del>
4.5.2 Standard Expressions in Reply Messages														i I
4.5.3 Examples for Status of NOTAM														
4.6 Request for a List of valid NOTAM														
(RQL)														
4.6.1 General Specification 4.6.2 Codes and Symbols used														
4.6.3 Examples of the request for a List	:													
of valid NOTAM														
4.7 Incorrect Requests (RQN, RQO,														
RQL) 4.7.1 General Specification														
4.7.2 Standard Expressions														
5 PROCEDURES FOR SNOWTAM,														
ASHTAM AND SPECIAL CONDITIONS														i l
5.1 Introduction														
5.2 SNOWTAM														
5.2.1 Definition.														
5.2.2 Procedures for SNOWTAM creation.														i I
5.2.3 Procedures for SNOWTAM														
processing														
5.3 ASHTAM														
<ul><li>5.3.1 Definition.</li><li>5.3.2 Procedures for ASHTAM</li></ul>														<del></del>
creation														<u>                                      </u>
5.3.3 Procedures for ASHTAM processing														
5.4 Bird Hazards														
5.4.1 Definition														
5.4.2 Procedure														
6 OTHER PROCEDURES 6.1 Multi-Part NOTAM														<del></del>
0.1 Muin-r art NOTAM	<u> </u>													

## AAITF/9 Appendix E to the Report OPADD Survey Results

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OPADD articles	Australia	Bangladesh	China	Fiji	Hong Kong	Japan	DPRK	Republic of Korea	Macao	Malaysia	Mongolia	Pakistan	Singapore	Thailand
6.1.1 General Principles														<u> </u>
6.1.2 Procedures for Multi-Part														1
NOTAM														<u> </u>
6.1.3 Examples														<u> </u>
7 GUIDELINES FOR THE														1
CREATION AND PROVISION OF														1
PRE-FLIGHT														
INFORMATION BULLETINS (PIB)														
7.1 Introduction														
7.1.1 Understanding and Background														
7.1.2 The basic user requirements														
related to Briefing														1
7.2 Data Selection Layers														
7.3 Types of Bulletins - PIB														
7.3.1 Area type Bulletin														
7.3.2 Route type Bulletin														
7.3.3 Aerodrome type Bulletin														
7.3.4 Administrative Bulletins.														
7.4 Types of Messages/elements to be														
included in the PIB														1
7.5 Criteria for PIB Customisation –														
Query Filters														1
7.5.1 Time window for PIB validity														
7.5.2 NSC qualifiers applied														
7.5.3 Vertical Criteria (Flight Levels)														1
7.5.4 Geographical criteria														
7.6 Principle structure of a PIB														
7.6.1 NOTAM sorting														
7.7 PIB - specific presentation														1
considerations			1		1					1				1
7.7.1 General layout considerations														
7.7.2 Presentation of dates/times														
7.7.3 Location Indicators														
7.8 Delivery of PIB														1
7.9 PIB - additional elements to be														1
considered					1					1				1
7.9.1 Provision of AIP-SUP in relation														ĺ
to PIB														1
7.9.2 Special areas														

Proposed changes to the Asia/Pacific Region *Operating Procedures for AIS Dynamic Data* (OPADD), as agreed at the 9<sup>th</sup> Meeting of the Asia/Pacific Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/9).

Article	2.3.4 NOTAM Qualification Item Q) – General Rules				
Proposed change	Delete 2.3.4.3 and associated examples in paragraphs 2.3.6.6-				
	2.3.6.8, 2.3.7.3, 2.3.9.4 and 2.8.3.				
	Describe above deviations in NSC as variants of operations.				
Rationale	The examples in the above paragraphs are compensations for the flaws of NSC. The flaws are clearly identified and there are measures that should be treated as variants of operations. Hence, the measures described above should be transferred to NSC.				

### *Note to AAITF:*

This proposal intends to make changes to not only the OPADD, but also NSC in Doc. 8126. Even if this proposal is accepted, the timings of the revisions of Doc. 8126 and the OPADD is crucial (same time?).

Article	2.3.23 Items F) and G) – Lower and Upper Limit
Proposed change	Delete "only" from 2.3.23.1
Rationale	The word "only" indicates that items F) and G) are used only
	for "QW" and "QR". This is different from the description of
	Annex 15 and Doc. 8126.

### *Note to AAITF:*

The deletion of "only" will change the meaning of the sentence. It will have the meaning that items F) and G) are mandatory for "QW" and "QR" and optional for other codes.

Article	2.4.3 Specific procedure related to NOTAMC creation
Proposed change	Incorporate "CN" and "HV" into the "Condition " of 2.4.3.4
Rationale	These letters have been incorporated in the 35th edition of
	Annex 15.

Article	2.7.2 Trigger NOTAM – General Rules
Proposed change	Change the time of item C) of the example in 2.7.2.4 to "C)
	2359".
	The same applies to the examples in 2.7.2.11, 2.7.2.12,
	2.7.2.14, 2.7.3.3 and Example 2 of 2.7.4.5.
Rationale	The item C) of the example for "2.8 NIL Notification" in 2.8.3
	is "C)2359". The concept of 14 days should be the same
	throughout the document. The "2359" conforms with the
	concept because it includes the whole day of 14th day.

Note	to	AA	17	F

The "0000" might also be applicable. The concept is to simply add 14 days.

.....

## **ATTACHMENT A** to State letter SP 68/1–IND/14/7

# TERMS OF REFERENCE INFORMATION MANAGEMENT PANEL (IMP)

Background	The Information Management Panel (IMP) is to be established to develop a global and harmonized interoperable approach and elaborate on necessary concepts in order to ensure effective management of information, including identifying the need for new information exchange formats, on a system-wide basis within the air navigation system.  A global approach on information management (IM) is essential to ensure global interoperability and standardization across all data domains and to support activities such as flight and flow - information for a collaborative environment (FF-ICE), the evolution of meteorological services towards digital information exchange and a NOTAM system review.
Scope	The Information Management Panel (IMP) will investigate and develop solutions supporting the planning framework on information management contained in the global air navigation plan (GANP), including further development of system-wide information management (SWIM) using as a basis the SWIM concept as elaborated by the Air Traffic Management Requirements and Performance Panel (ATMRPP).  The IMP will develop a global interoperability framework for international air navigation. Its components (for example, technical resources such as information models and associated exchange formats, service models, governance functions and structure) will be worked upon as they are identified and agreed during the course of the IMP proceedings.
Required Expertise	The panel shall be preferably composed of experts involved in:  a) cross data domain information management processes in the field of air traffic management (ATM);  b) the transition of State data domain specific systems (flight operations, meteorological services, airport services or aeronautical information service (AIS)) to a cross data domain IM system; and  c) the operational use of information supplied.
Objective(s)	<ol> <li>Define the Global Interoperability Framework (including a minimum set of global use cases, models, processes and requirements) describing the functions, architectures and system design requirements which should include the items further described hereafter.</li> <li>Define and elaborate on the ATM information management concepts, functions and processes required, including a business model to provide accredited, quality-assured and timely information required by actors within the air navigation system and used to support operations (including full FF-ICE, digital MET information exchange and NOTAM system review) on a system-wide basis, including avionics.</li> <li>Identify the quality of service requirements necessary to maintain ATM information security, integrity, confidentiality and availability, and to mitigate the risks of</li> </ol>

intentional disruption and/or changes to safety-critical ATM information. 4. Develop an ATM information service architecture. 5. Identify the requirements for SARPs and changes to existing SARPs that will provide an interoperable environment to support the information requirements of all air navigation services (ANS) stakeholders in accordance with the blocks and operational improvements outlined in the Global Air Navigation Plan and: a) develop those SARPs necessary to enable SWIM in accordance with the roadmap outlined in the Global Air Navigation Plan; b) provide suitable objectives and requirements to serve as the basis for SARP development by other groups where appropriate; and c) update and maintain the information management roadmap. 6. Develop transition strategies and guidance necessary for the implementation of global SWIM and new information exchange formats, including future avionic requirements. 7. Identify and plan for anticipated data and information flows in relation to future ATM requirements and capabilities and assess the capacity of appropriate facilities to support them. **Specific** It is anticipated that the panel will be supported by working groups, each dealing with a Working specific area. Precise details and meeting frequency/locations will be provided once the Arrangements group has been established and determines its tasks. It is expected that data domain specific elements would be handled in coordination with domain specific expert groups, for example, an envisaged future MET Panel. For AIS to AIM, the existing Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG) will be maintained until completion of current work on the amendment of Annex 15 - Aeronautical Information Services and PANS-AIM. The further evolution and work on AIM towards cross domain information management will then fall under the remit of the IMP.

\_\_\_\_\_

#### **ATTACHMENT B** to State letter SP 68/1–IND/14/7

### ADDITIONAL INFORMATION RELATING TO PANELS

- 1. The fifth edition of the *Directives for Panels of the Air Navigation Commission* (Doc 7984/5) contains guidance intended to assist States in determining their ability to contribute to a panel's work by making an expert available, in choosing the appropriate expert, and in providing instructions on the duties and responsibilities of the experts. Any expenses resulting from the participation of members in the work of the panels are borne by the States or organizations which have made them available.
- 2. The panel will conduct its work through correspondence and meetings. Panel meetings are normally held at ICAO Headquarters, in Montréal. Some of the panel's work is usually conducted through working groups that may require additional meetings, often held outside of Montréal. In order that panel members may contribute freely and effectively to the panel's work, it is important that they have available the necessary resources and are able to attend panel and working group meetings.
- 3. Resolving Clause 3 of Appendix B of Assembly Resolution A38-12 states that a panel will be allowed to continue in existence only if its continuation is considered justified by the Air Navigation Commission.

— END —

#### ICAO - ICARD 5LNC State User Registration Procedure

## Procedure for acquiring access to ICAO ICARD 5LNC web-based system

The following procedure allows ICAO State users to register on the ICARD application hosted on the ICAO secure portal located at <a href="http://portal.icao.int/">http://portal.icao.int/</a>. The ICARD State user registration procedure is intended for ICAO State users that are eligible to become ICARD 5LNC planner for their respective states.

The following table lists the ICARD focal points in the ICAO regional offices; those contacts can be used for any inquiry pertaining to ICARD with your respective ICAO regional office.

ICAO Region	Primary Contact	Alternate
Asia/Pacific	Shane Sumner	Chuleeporn Leemanan
Tel.: +662 537 8189	ssumner@icao.int	cleemanan@icao.int

The ICARD focal point in your respective ICAO regional office will analyse your request for access and if approved, will communicate to the ICAO portal administrator your name and state and will inform you via email that you may start or continue the registration process on the ICAO portal. Any registration attempt without prior authorization from an ICAO regional office will be ignored by the ICAO portal administrator.

The standard acceptance message to inform you that you have registered to the ICARD group should look like the following:

#### Dear 'Your State User Name',

Your request for subscribing to group icard has been granted.

Welcome to the icard group.

The ICARD State user registration is a two-stage process.

- ✓ You need to be member of the ICARD group;
- ✓ Once authorized as an ICARD group member; you need to subscribe to the ICARD\_5LNC\_PLANNER group, to become an ICARD 5LNC planner.

Please make sure that you do not have a pop-up blocker activated on your internet browser before following the registration procedure.

If the procedure does not work, or if you have any problems, please contact the ICAO support service at <a href="mailto:ServiceDesk@icao.int">ServiceDesk@icao.int</a> for additional assistance on the procedure.

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Here is how to complete those two steps:

## **INITIAL STAGE:**

Go to <a href="http://portal.icao.int/">http://portal.icao.int/</a>. If you do not have a login/password for ICAO's portal, choose
 Request an account (see Fig. 1) and go to Step 2, if you are already a user of ICAO's secure portal, choose Login, log in with your login/password, and proceed to Step 4.

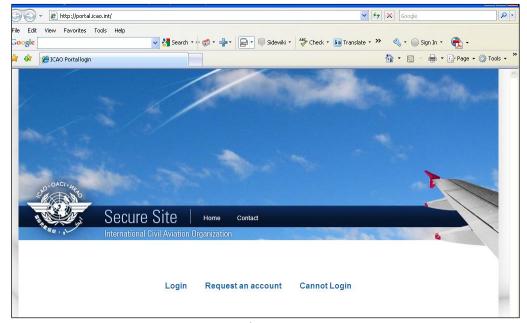


Figure 1

2. If you are requesting a new account, type in **ICARD** in "Group Name" of the resulting dialogue box (Fig. 2)



Figure 2

3. Fill out the requested information in the ensuing dialogue box (Fig. 3) and proceed to Step 5.

New User Account Application Form		
	* Fields are mandatory	
Please fill in the information below and submit the form. You will receive an e-mail with the response to your app		
Registration Details		
irst Name *		
ast Name *		
de		
ephone *		
ddress	^	
	<u>▼</u>	
x		
ail *		
onfirm Email *		
rganization (Company) *		
ountry	N/A 💌	
roup	✓ars	
lustification *	^	
	<u>~</u>	

Note: ∟

Figure 3

4. For users who already have an account, after logging in, click on the "Profile" link located on the top right of the page, then on the "Group Subscribe" (Fig. 4 & 5) of the ensuing page. Type in ICARD in the "Group Name" field of the resulting dialogue box.

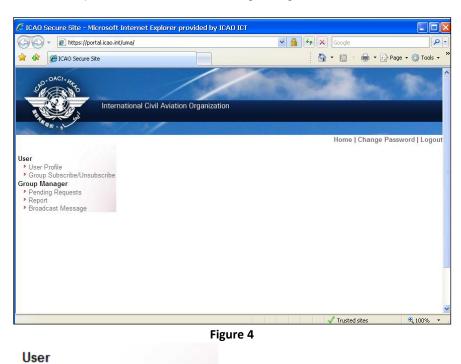


Figure 5

User Profile

Group Manager

Group Subscribe/Unsubscribe

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Once you are done, please click on the 'Submit Changes' button.

5. Whether it was a new account request, or an existing account request, you will get notification via email within 24 hours that your request for group membership has been granted.

You can then go to the web site <a href="http://portal.icao.int/">http://portal.icao.int/</a> and log in. You will see ICARD as one of the available groups listed under "Secure Sites", clicking on this link will take you to the application.

### **5LNC PLANNER STAGE:**

To become an ICARD 5LNC planner for your state, you need to take supplemental actions **only once you have been confirmed a member of the ICARD group**. State users need to coordinate their registrations with their respective ICAO regional office prior to execute this stage; failure to do so will result in a denial of the request by ICAO.

1. Go to <a href="http://portal.icao.int/">http://portal.icao.int/</a>. Choose **Login**, log in with your login/password.

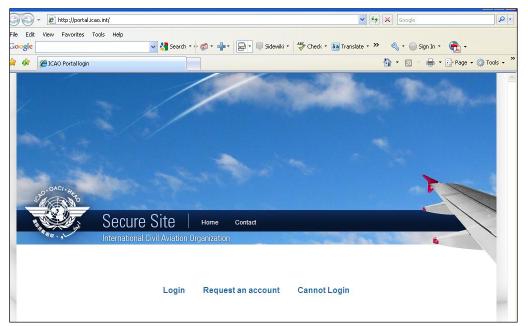


Figure 6

 After logging in, click on the "Profile" link located on the top right of the page, then on the "Group Subscribe" (Fig. 7 & 8) of the ensuing page. Type in ICARD\_5LNC\_PLANNER in the "Group Name" field of the resulting dialogue box.

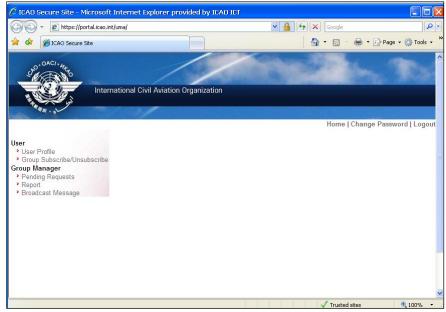


Figure 7



Once you are done, please click on the 'Submit Changes' button.

3. You will get notification via email within 24 hours that your request for group membership has been granted.

-- End --

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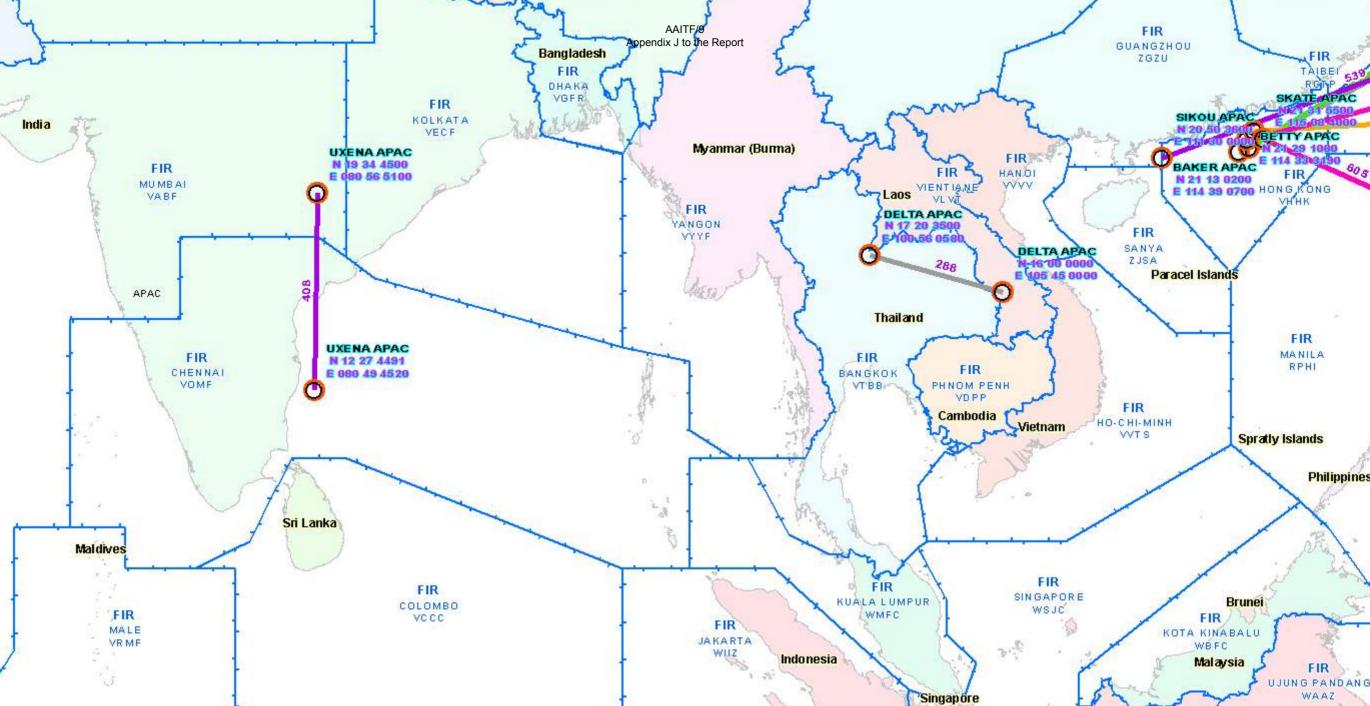
Asia/Pacific Region ICARD_5LNC_PLANNERS								
State/Administration	ICARD User Id	Surname	First name	Email				
Afghanistan	AAFCENT	AFCENT	Airspace	affora3aairspace@auab.afcent.centcom.mil				
Australia	LALBERTS	Alberts	Louise	louise.alberts@airservicesaustralia.com				
Australia	MMANGALIKA	Mangalika	Malani	malani.mangalika@airservicesaustralia.com				
Australia	PTEO	Teo	Pinghan	pinghan.teo@airservicesaustralia.com				
Australia	SDANVERS	Danvers	Sally	sally.danvers@airservicesaustralia.com				
Australia	AMURRAY002	Murray	Andrew	andrew.murray@airservicesaustralia.com				
Bangladesh	AHAQUE	Haque	AKM Faizul	faizul_bsl@yahoo.com				
Brunei Darussalam	AHJABBAS	Hj Abbas	Azdah	azdah.abbas@civil-aviation.gov.bn				
Cambodia	CSIVORN	Sivorn	Chhun	ans.ssca@gmail.com				
China	YZHANG001	Zhang	Ying	zhangying@atmb.net.cn				
Hong Kong, China	GCHENG	Cheng	Gabriel	gpkcheng@cad.gov.hk				
Hong Kong, China	LFAN	Fan	Lucius	lwcfan@cad.gov.hk				
Fiji	ITABAKAUCORO	Tabakaucoro	llaitia	ilaitia@caafi.org.fj				
India	GRAGHUVANSH	Raghuvanshi	Gaurav	gauravr@aai.aero				
India	SSWAMINATHA	Swaminathan	Subramanian	swamy64aqua2003@yahoo.com				
India	AKUMAR001	Kumar	Arun	akjaincra@gmail.com				
Indonesia	DYULIANSARI	Yuliansari	Dwi	dwi.yuliansari@yahoo.com				
Japan	MSAKAI	Sakai	Miwa	sakai-m2jj@mlit.go.jp				
Japan	NWATANABE001	Watanabe	Naoko	watanabe-n10nu@mlit.go.jp				

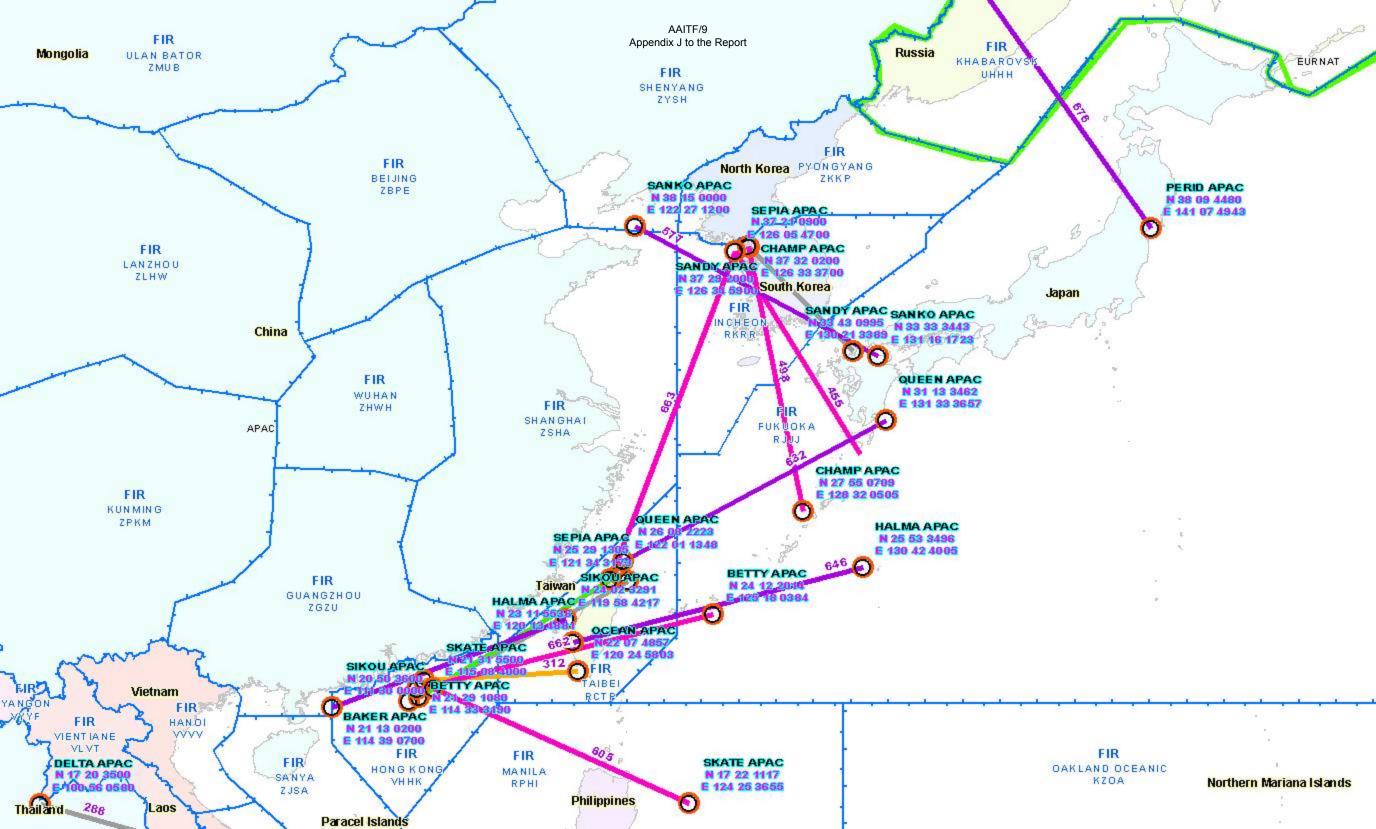
Asia/Pacific Region ICARD_5LNC_PLANNERS							
State/Administration	ICARD User Id	Surname	First name	Email			
Kiribati	BTABOKAI	Tabokai	Benitera	kiribatidca@gmail.com			
Lao PDR	VDAVONE	Davone	VILAYSENG	davone_vs1@yahoo.com			
Malaysia	AALI	Ali	Abdul Razak	razakali@dca.gov.my			
New Caledonia	DFABIEN	Fabien	DINCLAUX	fabien.dinclaux@aviation-civile.gouv.fr			
New Zealand	MTAYLOR	Taylor	Mark	mark.taylor@airways.co.nz			
Pakistan	AMUMTAZ	Mumtaz	Arif	Arif.Mumtaz@caapakistan.com.pk			
Papua New Guinea	CSAGATI	Sagati	Caleb	csagati@mail.casapng.gov.pg			
Philippines	LLAURE	Laure	Lea	leajlaure@gmail.com			
Polynesie Francaise	FMOUCHINLEU	Mou Chin Leung	Freddy	MOU-CHIN-LEUNG_Freddy@seac.pf			
Polynesie Francaise	ALAPLANE	Laplane	Aurelie	mihalic_aurelie@seac.pf			
Republic of Korea	ННА	На	Huho	hooho_ha@korea.kr			
Singapore	HJUMARI	Jumari	Hermizan	hermizan_jumari@caas.gov.sg			
Singapore	MSHEECHENGW	Shee Cheng Wah	Michael	michael_shee@caas.gov.sg			
Sri Lanka	PDISSANAYAK	Dissanayake	Priyanthi	do@caa.lk			
Sri Lanka	AJAYAWICKRA	Jayawickrama	Athula	das@caa.lk			
Thailand	PHARNBUMRUN	Harnbumrungkit	Pawat	pawat@aviation.go.th			
Timor-Leste	JLUISDACOST	Luis Da Costa	Jose	paize1@gmail.com			
Timor-Leste	SHENRIQUES	Henriques	Sabino	henriques.sabino@gmail.com			
Viet Nam	NHUNG	Hung	Nguyen The	hungand@caa.gov.vn			
Viet Nam	BVO	VO	BUI	buivanvo@caa.gov.vn			

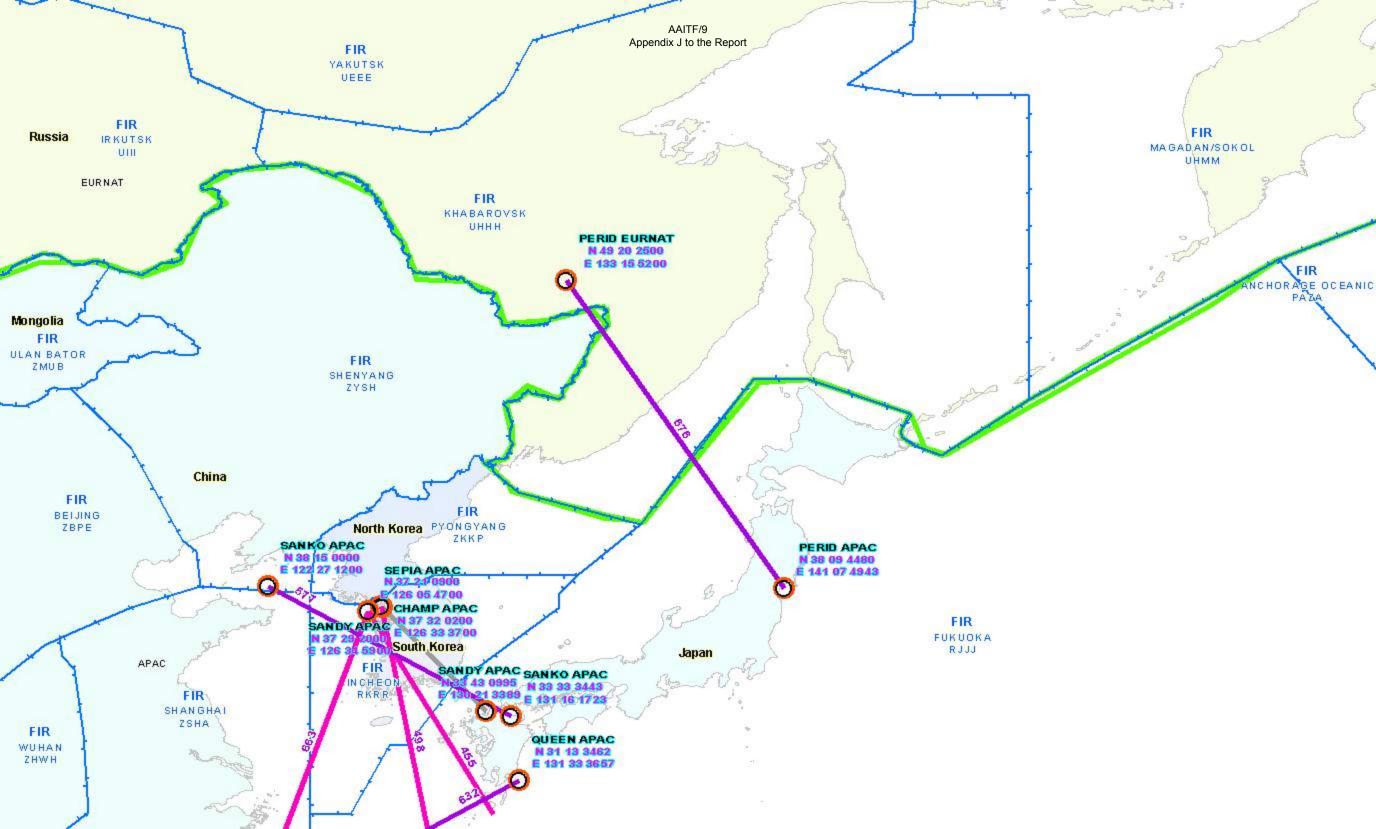
ICAO Asia/Pacific Regional Office ICARD_5LNC_MANAGERS					
State/Administration ICARD User Id Surname First name Email					
ATM Program Analysis Associate	CLEEMANAN	Leemanan	Chuleeporn	cleemanan@icao.int	
Regional Officer ATM/AIM	SSUMNER	Sumner	Shane	SSumner@icao.int	
Regional Officer ATM/SAR	LWICKS	Wicks	Len	LWicks@icao.int	

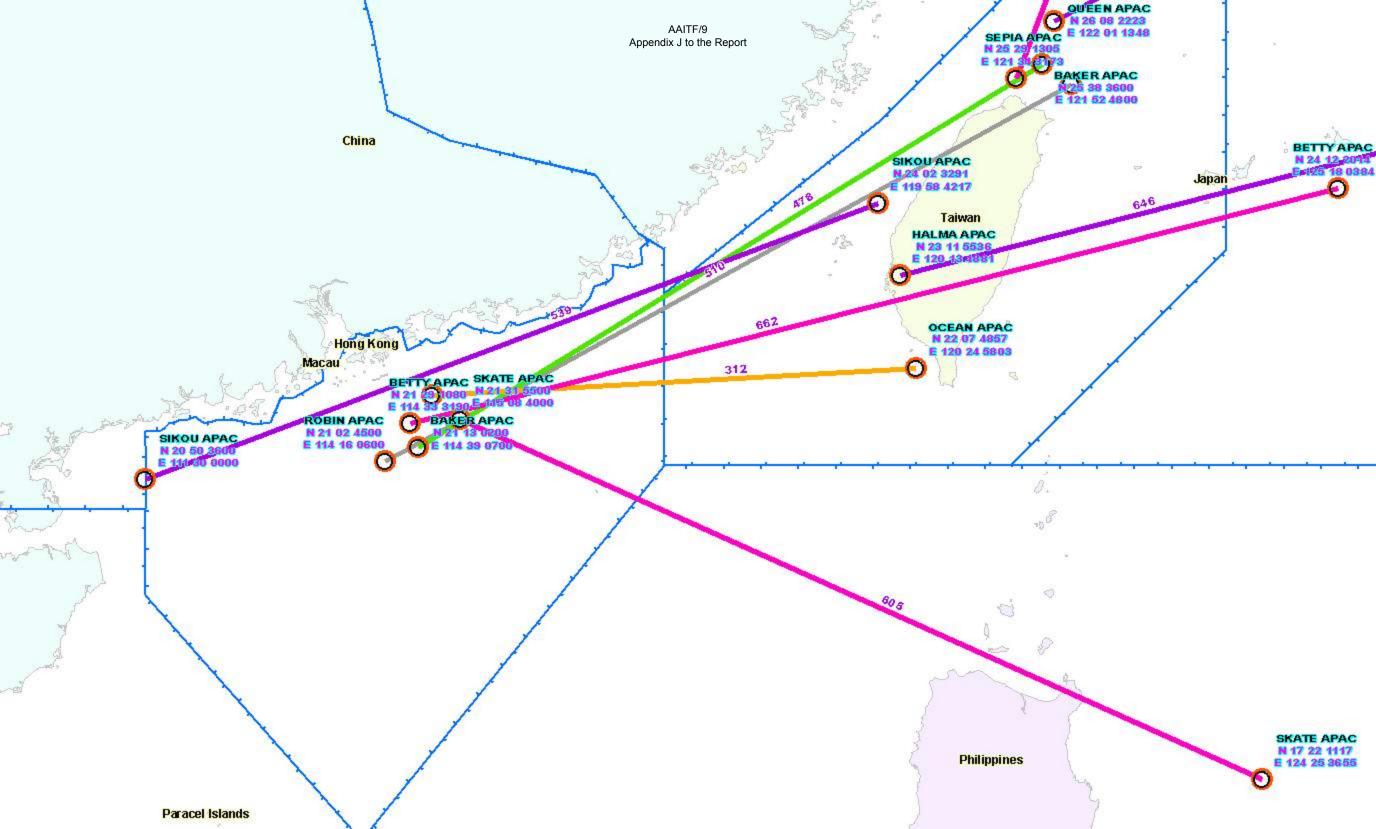
# Asia/Pacific Region Dangerous Proximity 5LNC Duplicates

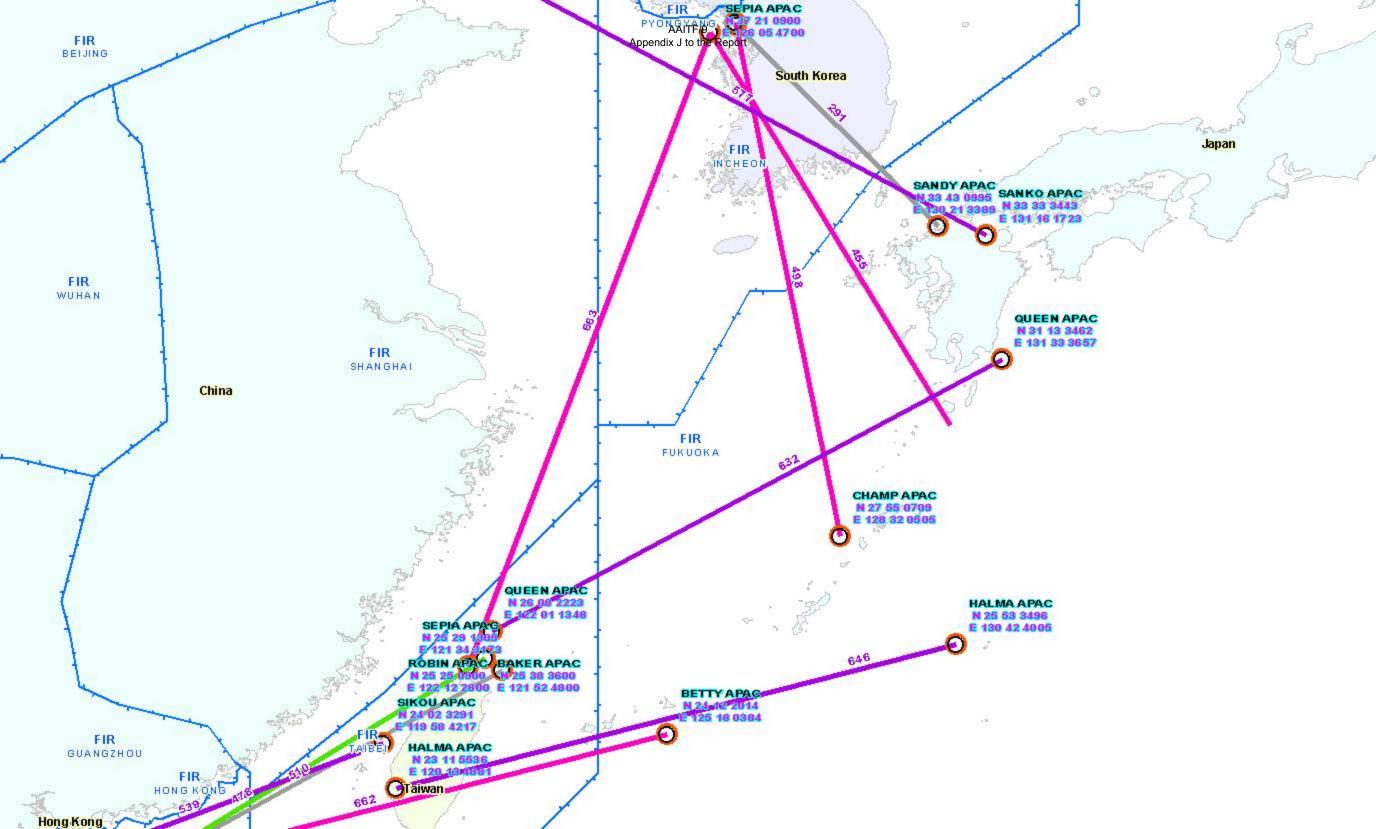
DANGEROUS PROXIMITY 5LNC DUPLICATES ASIA/PACIFIC						
5LNC	FIR	LATITUDE	LONGITUDE			
DELTA	VIENTIANE	N 16 00 0000	E 105 45 0000			
DELTA	BANGKOK	N 17 20 3500	E 100 56 0580			
ROBIN	HONG KONG	N 21 02 4500	E 114 16 0600			
ROBIN	TAIBEI	N 25 25 0900	E 122 12 2800			
SANDY	FUKUOKA	N 33 43 0995	E 130 21 3389			
SANDY	INCHEON	N 37 29 2000	E 126 34 5900			
BAKER	HONG KONG	N 21 13 0200	E 114 39 0700			
BAKER	TAIBEI	N 25 38 3600	E 121 52 4800			
OCEAN	HONG KONG	N 21 48 4300	E 114 48 4800			
OCEAN	TAIBEI	N 22 07 4857	E 120 24 5803			
BETTY	HONG KONG	N 21 29 1080	E 114 33 3190			
BETTY	FUKUOKA	N 24 12 2014	E 125 18 0384			
CHAMP	FUKUOKA	N 27 55 0709	E 128 32 0505			
CHAMP	INCHEON	N 37 32 0200	E 126 33 3700			
SEPIA	INCHEON	N 37 21 0900	E 126 05 4700			
SEPIA	TAIBEI	N 25 29 1305	E 121 34 3173			
SKATE	HONG KONG	N 21 31 5500	E 115 08 4000			
SKATE	MANILA	N 17 22 1117	E 124 25 3655			
HALMA	FUKUOKA	N 25 53 3496	E 130 42 4005			
HALMA	TAIBEI	N 23 11 5536	E 120 13 4881			
PERID	FUKUOKA	N 38 09 4480	E 141 07 4943			
PERID	KHABAROVSK	N 49 20 2500	E 141 07 4943			
QUEEN	FUKUOKA	N 31 13 3462	E 131 33 3657			
QUEEN	FUKUOKA	N 26 08 2223	E 122 01 1348			
SANKO	SHENYANG	N 38 15 0000	E 122 27 1200			
SANKO	FUKUOKA	N 33 33 3443	E 131 16 1723			
SIKOU	HONG KONG	N 20 50 3600	E 111 30 0000			
SIKOU	TAIBEI	N 24 02 3291	E 119 58 4217			
UXENA	CHENNAI	N 12 27 4491	E 080 49 4520			
UXENA	MUMBAI	N 19 34 4500	E 080 56 5100			











# <u>WORKING DRAFT</u> – Asia/Pacific Region Implementation Checklist for AIS – AIM Transition Steps

## P-17 - Quality

Quality management measures will be re-enforced to ensure the required level of quality of the aeronautical information. In order to assist States in the implementation of an efficient quality management system, guidance material for the development of a quality manual will be developed.

Enter headings and brief explanatory notes to form a checklist of actions/recommendations to implement the AIM transition Step

### Regular reviews of the entire IAIP document set to ensure it is consistent and accurate.

The IAIP document set is updated at regular intervals (at least once per year)

### Proof reading and peer review of AIP amendments before publication.

Typographical and other errors

# Ensure complete understanding of Aeronautical Information Management concepts including:

- National obligations under Annex 15 to the Convention on Civil Aviation.
- AIRAC cycle and Annex 15 requirements for advance notification of significant changes.
- Definition of significant changes.
- Quality requirements for Accuracy, resolution and integrity

### Annex 15 and Doc 8126 Compliance checks for all NOTAMS

Standards, recommended practices and guidance for the compilation and distribution of NOTAMS are defined in Annex 15 and Doc 8126 AIS Manual.

• Asia/Pacific Region OPADD procedures should be used to complement the procedures specified in ICAO docs to ensure concise, consistent NOTAMS.

### **AIP Amendment Distribution Checks**

Conduct surveys and other checks to ensure that end users of AIP are receiving AIP Amendments, SUPPS and AIC in accordance with AIRAC

### (Australia)

# **Documented Procedures**

Documented procedures ensure that controlled documents are identifiable, legible, readily available and retrievable. Documents are regularly reviewed for adequacy and approved by the relevant document owner.

- relevant and current documents are issued and are available at points of use
- unauthorised or obsolete documents are removed from points of use
- hard copies of controlled documents are assumed to be (and are treated as)
   'Uncontrolled Copy'
- changes to documents are reviewed and approved and identified in the document.

### **Control of records**

AIM has legal and regulatory requirements to keep complete, reliable and accurate records as evidence that it is operating within regulatory and legislative requirements.

 policy ensures that detailed records associated with any change to published information are maintained and are traceable back to the originator of the change.

#### **Provision of resources**

Appropriate deployment of resources to ensure that the AIM management system is capable of meeting ongoing business needs. Sufficient resources are allocated toward maintaining and improving the quality management system, and enhancing customer/client satisfaction.

- an assessment of the training needs of staff
- provision of training and the maintenance of currency/effectiveness
- the appropriate number of persons
- availability of equipment and systems
- staff facilities and reference materials.

#### Infrastructure

Appropriate infrastructure such as buildings, equipment and systems (hardware and software) are provided to enable personnel to deliver quality products and services commensurate with their role and responsibilities. The plant and equipment used is supported by service contracts administered by dedicated support groups. System specialists maintain configuration, access, security, virus control and disaster recovery of computer based systems.

#### (Malavsia)

#### CORRECTIVE ACTION ON QUERIES AFTER PUBLICATION.

- Verify the queries
- Confirm with data provider
- If error is confirm NOTAM action will be taken and subsequently the AIP Supplement will be replaced.

### **REGULAR PROFICIENCY CHECKS ON THE STAFF**

To ensure the staff are well versed with their daily works

• any new updates or requirements

### (Singapore)

#### Compliance to AIRAC publication and effective dates

Provide advance notification to data originators for planning purpose to ensure timely publication of operationally significant aeronautical data and information to allow sufficient time for follow-up actions by users.

Publish AIRAC publication and effective dates in AIC and / or AIP yearly

#### **Handling of multi-part NOTAMs**

Standardise format to indicate multi-part NOTAMs to allow automatic processing

### Standard format for NOTAM query (RQN)

Standardise format to request for repeat of missing / corrupted to allow automatic processing by automated system to provide accurate and complete aeronautical information to users.

# Single address for NOF

To ensure that queries on NOTAMs are correctly routed for follow-up action.

### (India)

## Data Conformity:

- Before sending the data for publication, data originators must ensure that data is accurate and is in conformity with the specifications.
- AIS Section to ensure that the data has been entered into the system, for publication, as received.
- Data originators to ensure that data is in conformity with the data forwarded.
- Data originators to cross check the published data periodically.

## Data Integrity:

- Data originators to take prompt action noticing any accidental change of data and must take corrective action.
- Data originators and AIS to assess the causes of error committed may be inadverntly and to take preventive measures.

### P-18 – AGREEMENTS WITH DATA ORIGINATORS

Data of high quality can only be maintained if the source material is of good quality. States will be required to better control relationships along the whole data chain from the producer to the distributor. This may take the form of template service level agreements with data originators, neighbouring States, information service providers or others.

Enter headings and brief explanatory notes to form a checklist of actions/recommendations to implement the AIM transition Step

### **EXAMPLES:**

### Identify a complete list of authorized originators of AIS Information (static and dynamic).

A list of authorized data originators will clearly identify the organizations and stakeholders responsible for supplying specific information to the AIS organization, and avoid duplication or conflicting information from multiple origination points supplying the same information.

- Airport Operators
- Military Organizations
- Air Navigation Service Providers
- Surveyors
- Etc....

### Conduct workshops and training courses for data originators.

Ensure complete understanding of Aeronautical Information Management concepts including:

- National obligations under Annex 15 to the Convention on Civil Aviation.
- AIRAC cycle and Annex 15 requirements for advance notification of significant changes.
- Definition of significant changes.
- · Quality requirements for Accuracy, resolution and integrity

### Specify the format for data to be provided by data originators.

Ensure consistency in the data received. Templates or pro-formas could be used to ensure standardized presentation of data by originators, and to ensure data complies with Annex 15 requirements for accuracy, resolution and integrity.

#### (India)

# Survey of Data:

- Survey of data will be the sole responsibility of the data owner and the standards for the surveyors must be fixed by the regulatory authority of the state.
- Owner of the facility to have agreement with the surveyor regarding conformance of required standards and practices.

### Heading

Explanatory notes/discussion:

• Points (if any)...

Points.....

# P16 - Training

The training of personnel will be adapted to the new requirements on skill and competencies introduced by the transition to AIM.

The successful QMS deeply relies on the motivation of personnel. The personnel need to have knowledge of the meaning of operational processes that are developed based on Quality Manual.

### (Japan)

### Enhance the motivation by achieving mastery of operational processes

Ensure complete understanding of the meaning of operational processes to enhance the motivation to achieve the objectives:

- The meaning of the processes such as double check in the NOTAM creation process.
- The meaning of setting the numerical targets.
- The meaning of adhering to the process. That means no skipping of steps.

### (Australia)

### **Understanding Transition**

- Evolution from AIS to AIM will occur over an extended period, with present and future styles of operation proceeding in parallel, until staff eventually cease to be involved in detailed day-to-day information product provision.
- In the near to mid term we will need to undertake retraining of existing staff, and take the new skill requirements into account during recruitment, so as to reflect the management of the overall information process in the future, rather than the information product of today.

## **AIS to AIM People Strategy Guidance Material**

- ICAO DOC 7192-AN/857 Part E3
  - Training Manual for Aeronautical Information Services Personnel Preliminary
     Edition 2005
- Eurocontrol Human Factors
  - » AIS Training Development Guidelines Edition 1, 2007
- Eurocontrol Common AIS Staff Profiling
- Annex 15 Quality Assurance System ISO 9000
  - Within the Quality System, the objectives of skills and competency management must include:
  - Identification of functions to be performed;
  - Establishment of the knowledge and skills required for each step of the process; and
  - Assurance that the personnel assigned to those functions have the required

knowledge and skills and that they are competent to perform those functions.

### **Competencies Considerations**

Behaviour Strengths						
• Ar	daptable • nalytical •	Business sense Fast learner	•	Innovator Multi-Tasker	<ul><li>Resourceful</li><li>Service</li><li>Orientated</li></ul>	
Core Com	petencies					
<ul> <li>Critical examining</li> <li>Information analysis</li> <li>Operational knowledge</li> <li>Professional expertise</li> <li>Adherence to procedure</li> <li>Safety culture</li> <li>ATC safety conscious</li> <li>Language skills</li> </ul> Business Competencies		<ul> <li>Judgement and decision making</li> <li>Reliability</li> <li>Accuracy</li> <li>Methodical</li> <li>Selective attention</li> <li>Quality focussed</li> <li>Customer focused</li> </ul>				
Critical	•		Secona	lary		
> Co > Co > Pla m	<ul> <li>Conflict management</li> <li>Continual learning</li> <li>Planning and organisation/Time management</li> <li>Technical credibility</li> </ul>		<ul> <li>Administration</li> <li>Business/operations awareness</li> <li>Cultural awareness</li> <li>Human resource management</li> </ul>			

### **Training Needs Analysis**

- Training Needs Analysis (TNA) is a generic term used to describe the process for determining the training required in order to satisfy a specified outcome. A TNA may apply to an individual, a business unit or a broader target audience.
- Development of the TNA involves comparing existing knowledge and skill against the required knowledge and skill, the results of which will enable a relevant Training Plan to be developed.

### Process for developing the TNA

- The general requirement for all TNAs is to determine:
- What knowledge and skill does the candidate currently have?
- What knowledge and skill does the candidate require?
- What gap exists between current and required? (i.e. what training is needed to fill the knowledge and skill gap(s)).

### **Recognition of Prior Learning (RPL)**

RPL is a form of assessment used to determine whether a trainee has the required knowledge, skills and application (or combinations of these) that have been acquired previously through life experience, formal training and previous work experience needed to meet the standards of the course.

### (India)

# Training to AIM Chief of state:

 To acquire knowledge of all the processes involed in AIS-AIM transition and for decision making.

### Training of AIM Personnel:

 The AIM personnel to be imparted comrehensive Basic and Advanced training in their respective areas.

## Motivation /recruitment of AIM Staff:

- Special incentives for the personnel deployed in AIM funtions.
- Exclusive recruitment for the AIM functions.

### P11 - Electronic AIP

The integrated aeronautical information package will not be phased out. On the contrary, it will be adapted to include the new data products needed during the transition to AIM.

The electronic version of the AIP will be defined in two forms: a printable document and one that can be viewed by web browsers.

Enter headings and brief explanatory notes to form a checklist of actions/recommendations to implement the AIM transition Step

### (Thailand)

# **Content (AAITF Conclusion 8/1)**

According to Standards, recommended practices, Annex 15 requirements for Integrated Aeronautical Information Packages:

• Ensure the eAIP complies with Annex 15 requirements for content and structure.

### Accessibility (AAITF Conclusion 8/1)

- Internet Accessible
- Permit open access to the eAIP either without the need for registration or, if registration is required, access to eAIP is automatically and immediately available.

### **Authorization (AAITF Conclusion 8/1)**

• Ensure the eAIP has the unconditional authority of the State, without disclaimers referring to a separately published paper product

### Reporting to ICAO (AAITF Conclusion 8/1)

- Report eAIP implementation and its internet hyperlink to the ICAO Asia/Pacific Regional Office.
- Discontinue the forwarding of paper or CD copies of AIP, AIP SUP, AIC and NOTAM Checklists to the Regional Office.

### **Technicality (AAITF 7 report para. 4.16-4.17)**

Clarification on definition of eAIP and digital AIP:

- Digital in the AIP context meant information extracted from a database.
- EUROCONTROL eAIP specification was based on XML, and the complete AIP could be extracted using XML.
- Relieved constraint: eAIP could mean that information could be retrieved via .pdf file. (Not documented, but verbal explanation in AAITF8)

### (India)

#### **Vendor Certification:**

- Process for evaluating the vendor's credibility and product rating.
- Timeline for data originators for submitting the information to generte timely publication.
- Identify the process for compilation of published data through NOTAM and Supplements.
- Cautious approach for migrating data during transition to eAIP.

He	ading	
Explanatory notes/discussion:		
•	Points (if any)	
•	Points	

# AAITF TASK LIST

(Last updated June 2014)

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	Status REMARKS
1.	Report on the outcome of the AIS-AIM Study Group	AAITF/9 AAITF/10	Australia/China/Japan/United States	Ongoing
2.	Update Roadmap implementation plan status	AAITF/9 AAITF/10	All States	Ongoing
3.	Review implementation of Amendment 37 to Annex 15	AAITF/9 AAITF/10	All States	Ongoing
4.	Review draft Amendment 38 to Annex 15	AAITF/9 AAITF/10	All States, United States	Ongoing
5.	Review draft PANS-AIM	AAITF/9 AAITF/10	All States	Ongoing
6.	Review draft amendment to AIS Manual (Doc 8126)	AAITF/9 AAITF/10	All States	Ongoing
7.	Review draft amendment to Aeronautical Chart Manual (Doc 8697)	AAITF/9 AAITF/10	All States	Ongoing
8.	Review draft AIM Quality Manual	AAITF/9 AAITF/10	All States	Ongoing
9.	Review draft AIM Training Manual	AAITF/9 AAITF/10	All States	Ongoing
10.	Update AIS – AIM Transition Status	AAITF/9 AAITF/10	All States/Secretariat	Ongoing
11.	States to advise AIS-AIMSG if they have any issues with sample charts in the Aeronautical Chart Manual (Doc 8697) being printed in English language only	30 June 2013	All States/Secretariat	Ongoing Closed

# AAITF/9 Appendix L

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	Status	REMARKS
12.	Explore what opportunities or resources may be available for seminars or workshops on AIS  – AIM Transition Steps	AAITF/9 AAITF/10	Secretariat	Ongoing	
13.	Develop an informal website for sharing knowledge, information and experience in AIS – AIM Transition implementation.	AAITF/9 AAITF/10	Mongolia/States	Ongoing	
14.	Ensure States have 2 registered ICARD_5LNC_PLANNERS	AAITF/9 AAITF/10	All States	Ongoing	
15.	AAITF SWG to provide guidance material on implementation of Roadmap Steps for the Guidance Manual for AIS in the Asia/Pacific Region	AAITF/9 AAITF/10	AAITF SWG/Secretariat	Ongoing	
9/1	Inform States newly added to the AIS Deficiencies List	11 July 2014	Secretariat		
9/2	Obtain clarification of the meaning of the AIM transition steps as detailed in the Roadmap for Transition from AIS to AIM	AAITF/10	Secretariat	Open	
9/3	Provide Mongolia discussion of List of NOTAMS to AIS-AIMSG for consideration	11 July 2014	Secretariat	Open	AAITF/9 WP/10
9/4	States to provide Mongolia with point-of-contact for participation in open-source preflight information facility	AAITF/10	States	Open	

	ACTION ITEM	TIME FRAME	RESPONSIBLE	PARTY	Status	REMARKS
9/5	Investigate:  1. What ICAO involvement may be possible in advancing the open source pre-flight information database, and in the coordination of the contacts and activities of informal groups; and 2. Advice on setting up informal groups and their information/knowledge exchange mechanisms.	29 August 2014	Secretariat			
9/6	Forward proposed OPADD changes to EUROCONTROL for inclusion in their OPADD review.	11 July 2014	Japan/Secretariat		Open	AAITF/9 Report Appendix F
9/6	Check details of ICARD 5LNC users and advise Regional Office of any discrepancies	1 August 2014	States		Open	AAITF/9 Report Appendix I
9/7	Further enquiry on copyright protection agreements between States exchanging aeronautical information in accordance with Annex 15	29 August 2014	Secretariat		Open	
9/7	Seek further explanation of the meaning of "unique identifiers" in the AIM Transition Roadmap	AAITF/10	Secretariat		Open	