

INTERNATIONAL CIVIL AVIATION ORGANIZATION



**REPORT OF
THE TENTH MEETING OF THE ICAO AERONAUTICAL INFORMATION SERVICES –
AERONAUTICAL INFORMATION MANAGEMENT IMPLEMENTATION TASK FORCE
(AAITF/10)**

BANGKOK, THAILAND, 27 – 30 APRIL 2015

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

AAITF/10
Table of Contents

CONTENTS

INTRODUCTION.....	i
Meeting	i
Attendance	i
Officers & Regional Office	i
Opening of the Meeting.....	i
Documentation and Working Language.....	i
Draft Conclusions, Draft Decisions and Decisions of AAITF – Definition	i
List of Decisions and Draft Conclusions/Decisions	ii
REPORT ON AGENDA ITEMS.....	1
Agenda Item 1: Election of Chairperson/Adoption of Agenda (WP01).....	1
Agenda Item 2: Review Outcomes of Related Meetings	1
Agenda Item 3: Review of Air Navigation Deficiencies in the AIS Field.....	2
Agenda Item 4: AIS-AIM Updates.....	2
Agenda Item 5: Any Other Business	7
Agenda Item 6: Review of the Task List.....	11
Agenda Item 7: Date and Venue for the Next Meeting.....	12
Closing of the meeting	12

AAITF/10
Table of Contents

LIST OF APPENDICES

Appendix A: List of ParticipantsA-1

Appendix B: List of Working and Information PapersB-1

Appendix C: AIS-AIM Related Air Navigation Deficiencies.....C-1

Appendix D: AIM Transition Table.....D-1

Appendix E: Draft Interim AIM Transition Guidance.....E-1

Appendix F: AAITF Task List..... F-1

INTRODUCTION

Meeting

1.1 The Tenth Meeting of the Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/10) was held at the Kotaite Wing of the ICAO Asia and Pacific (APAC) Regional Office, Bangkok, Thailand, from 27 to 30 April 2015.

Attendance

2.1 The meeting was attended by 52 participants from, Bangladesh, Cambodia, China, Hong Kong China, Macao China, Fiji, Indonesia, Japan, Malaysia, Maldives, Mongolia, Myanmar, Philippines, Singapore, 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, Director, Aeronautical Information Services Division, Civil Aviation Authority of Mongolia, 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.

Documentation and Working Language

5.1 The working language of the meeting and all documentation was English. There were 7 working papers and 6 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 and Draft Decisions

Draft Conclusion AAITF/10-2: eAIP from Digital Database

That, States providing updated AIM transition information in accordance with **Conclusion APANPIRG/25-15** should advise whether their eAIP is generated from a digital database of aeronautical information.

Draft Conclusion AAITF/10-3: Interim AIM Transition Guidance

That, the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region* be updated to include as an appendix the Interim AIM Transition Guidance appended at **Appendix E to this report**.

Draft Decision AAITF/10-4: AIM Transition Seminars/Workshops

That, ICAO be urged to facilitate Asia/Pacific AIM Transition Seminars/Workshops to:

1. Familiarize stakeholders with the new and amended ICAO publications developed by the ICAO AIS-AIM Study Group;
2. Assist States in developing AIM implementation plans; and
3. Act as a forum for further development and updating of the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*.

7.2 List of Decisions

Decision AAITF/10-1: AIM Transition Information Sharing Website

That, AAITF agrees to facilitate a project by [Administration/s] to develop a website for the sharing of information related to the implementation of Aeronautical Information Management steps defined in the ICAO Roadmap for Transition from AIS to AIM.

Facilitation includes:

1. Providing a coordination point for the contact details of the website administrator;
2. Assisting in the development of a list of items for inclusion in the website;
3. Promoting the website as a valuable resource for Asia/Pacific Administrations undertaking or planning to undertake AIM transition and implementation projects; and
4. Encouraging discussion of issues raised in the website and lessons learned at AAITF meetings;
5. Providing a summary of information shared through the website, and providing hyperlink/s to the website, in AAITF meeting reports.

REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Agenda (WP01)

1.1 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 The Twenty-fifth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/25) was held in Kuala Lumpur, Malaysia, from 8 to 11 September 2014.
- The Tenth Meeting of the ICAO Aeronautical Information Services – Aeronautical Information Management Study Group (AIS-AIMSG/10) was held in Montreal, Canada, from 10 to 14 November 2014.

APANPIRG/25

2.2 The meeting was informed of APANPIRG/25 agreement to the following Conclusions drafted by AAITF/9:

Conclusion APANPIRG/25-14: Access to ICAO Annexes and Documents

Conclusion APANPIRG/25-15: Aeronautical Information Management (AIM) Transition Reporting

Conclusion APANPIRG/25-16: Duplicated 5LNC (Five Letter Name Code)

Conclusion APANPIRG/25-17: ICARD ATS Route Designators Function Access

2.3 In respect of access to ICAO Annexes and Documents, the meeting was informed of difficulty being experienced in accessing the secure portal by authorized personnel, and in downloading publications that could be viewed in the portal. Participants were advised to provide details to the Secretariat by email for follow-up.

2.4 Information was provided on the ten regional priorities and targets for the Asia/Pacific Region, and specifically on the two priorities and targets of greatest interest to AAITF:

- Priority: *PBN*; related ASBU: *B0APTA*.
- Priority: *AIM*; related ASBU: *B0DATM*.

AIS-AIMSG/10

2.5 The meeting was informed that the current goal for completion of the work of AIS-AIMSG was 2nd or 3rd Quarter 2016, following completion of final proposals for the update to Annex 15 and the new Procedures for Air Navigation Services – Aeronautical Information Management (PANS-AIM).

2.6 Information was also provided on nine ICAO publications being produced or updated by AIS-AIMSG that were expected to become available in 2015.

Coordination Between APAC PBNICG and AAITF (IP/04)

2.7 The Secretariat briefed the meeting on coordination between the Asia/Pacific Region Performance-Based Navigation Implementation Coordination Group and AAITF. PBNICG had recognized the scale and importance of the ICAO Codes and Routes Database (ICARD) to both PBNICG and AAITF. In line with the APANPIRG procedural handbook coordination between the two groups would be handled by the ICAO Secretariat on an ad-hoc basis through the submission of papers.

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-Fifth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/25), 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 It was noted that, following corrections provided by States since AAITF/9, the following AIS/AIM-related deficiencies remained in the list:

- WGS-84 not implemented (16 States);
- AIP Format (4 States); and
- Quality Management System not implemented (26 States).

3.3 In response to a query it was clarified that Annex 15 stipulated that States shall have a quality management system for aeronautical information in place. However, while International Standards Organization (ISO) series quality management standards were referenced in the document, it was not mandatory to use them.

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/9 was held in June 2014, as reported to the ICAO Regional Office. Several States had made significant progress, as recorded in the AIM Transition Table which was available on the Asia/Pacific Regional Office website at <http://www.icao.int/APAC/Pages/edocs.aspx>.

4.2 The meeting was reminded of Conclusion APANPIRG/25-15: Aeronautical Information Management (AIM) Transition Reporting, which had urged States to verify the information recorded in the AIM Transition Table and update the information at least once annually, by April 30 each year. With only 3 days remaining 10 States had provided updated information:

Australia, Bangladesh, China, Fiji, Malaysia, Maldives, Sri Lanka, Thailand, Tonga and USA.

4.3 The following States had not provided any information on AIM transition since the AIM Transition Table was created in 2011:

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

4.4 The AIM Transition Table as updated by the meeting is provided in **Appendix D** to this report.

4.5 Regional implementation of Phase 1- *Consolidation* of the Roadmap for Transition from AIS to AIM was summarized as follows:

- 15 Administrations (≈ 36%) had completed implementation of Phase 1;
- 16 Administrations (≈ 38%) had partly implemented Phase 1;
- 11 Administrations (≈ 26%) had not implemented any Phase 1 step; and
- Overall Regional implementation of Phase 1 ≈ 60%.

4.6 **Figure 1** illustrates current Asia/Pacific Region progress towards completion of Phase 1.

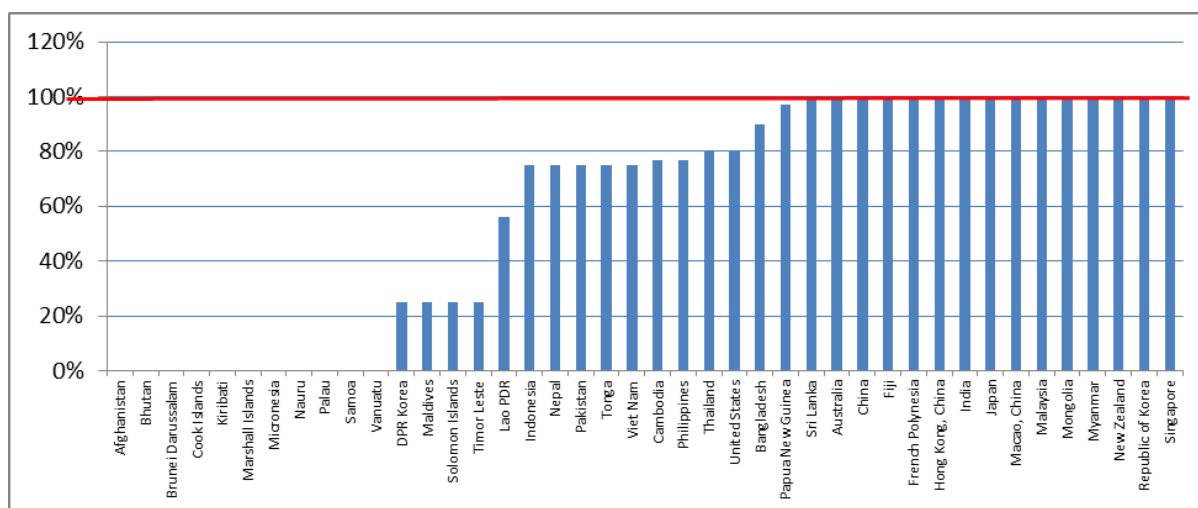


Figure 1: Regional Phase 1 Implementation Progress

4.7 Regional implementation of Phase 2 – *Going Digital* was summarized as follows:

- No Administrations had completed implementation of Phase 2;
- 25 Administrations (≈ 59%) had partly implemented Phase 2
 - 11 Administrations (≈ 26%) have completed more than 50% of Phase 2;

AAITF/10
Report on Agenda Items

- 17 Administrations ($\approx 40\%$) had not completed any Phase 2 1 step; and
- Overall Regional implementation of Phase 2 $\approx 27\%$.

4.8 **Figure 2** illustrates current Regional progress towards completion of Phase 2 of the Roadmap.

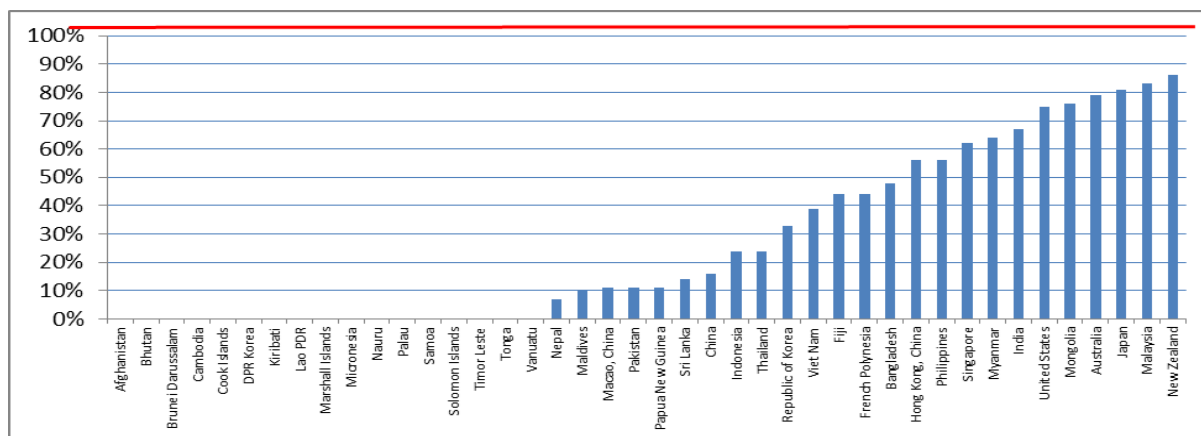


Figure 2: Regional Phase 2 Implementation Progress

4.9 The meeting was reminded that the performance objectives of the Asia/Pacific Seamless ATM Plan, adopted by APANPIRG/24 in June 2013, include the expectation that Phases 1 and 2 of the Roadmap for Transition from AIS – AIM would be completed by November 2015.

4.10 In discussing Regional AIM transition progress, the meeting was reminded of Mongolia's previous offer to design an AIM implementation tracking website. While the AIM Transition Table provided information on progress within the Phases, it did not provide information on the current status and challenges being faced by States. The meeting supported the proposal for a website to share experience between States, and agreed to the following Decision:

Decision AAITF/10-1: AIM Transition Information Sharing Website

That, AAITF agrees to facilitate a project by [Administration/s] to develop a website for the sharing of information related to the implementation of Aeronautical Information Management steps defined in the ICAO Roadmap for Transition from AIS to AIM.

Facilitation includes:

1. Providing a coordination point for the contact details of the website administrator;
2. Assisting in the development of a list of items for inclusion in the website;
3. Promoting the website as a valuable resource for Asia/Pacific Administrations undertaking or planning to undertake AIM transition and implementation projects; and
4. Encouraging discussion of issues raised in the website and lessons learned at AAITF meetings;
5. Providing a summary of information shared through the website, and providing hyperlink/s to the website, in AAITF meeting reports.

4.11 The meeting discussed the website, and agreed that its scope would be limited to the sharing of information on AIM transition activities and experience. Registered users, being the nominated point-of-contact from each State or Administration, would have write-access permissions for sharing information, posting questions and providing answers or suggestions. The information shared in the website would be publicly available. Mongolia requested that meeting participants provide their States' point-of-contact details as soon as possible.

4.12 It was agreed that Mongolia would design the initial version of the website, with further development based on feedback from the designated points-of-contact. Progress would be reported to the next AAITF meeting.

4.13 The meeting discussed the recording in the AIM Implementation Table of electronic AIP (eAIP) implementation, noting that the table did not differentiate between a simple web-accessible, printable AIP provided via PDF or other files, and an AIP based on a digital database of information that could be exchanged through the use of an appropriate information exchange model. The meeting agreed that the current column of the AIM Transition Table recording eAIP implementation should be split to provide information on States that had implemented eAIP generated from digital databases.

4.14 Noting that the updating of AIM Implementation Table information was the subject of an APANPIRG Conclusion, the meeting agreed to the following draft Conclusion:

Draft Conclusion AAITF/10-2: eAIP from Digital Database

That, States providing updated AIM transition information in accordance with **Conclusion APANPIRG/25-15** should advise whether their eAIP is generated from a digital database of aeronautical information.

4.15 It was noted that some States may have implemented eAIP generated from a digital database that may not be suitable for future exchange. The meeting was reminded that the performance objectives of the Asia/Pacific Seamless ATM Plan specified the Aeronautical Information Exchange Model (AIXM) version 5.1 or later¹.

4.16 In discussing eAIP and the Asia/Pacific Seamless ATM Plan's performance objectives the meeting noted that the use of the Aeronautical Information Exchange Model may not be applicable to Phases 1 and 2 of the Roadmap for Transition from AIS to AIM. In its description of Phase 3 – *Information Management* the Roadmap stated *inter alia*:

During Phase 3, steps will be taken to enable future AIM functions in States to address the new requirements that will be needed to implement the Global Air Traffic Management Operational Concept in a net-centric information environment.

The digital databases introduced in Phase 2 will be used for the transfer of information in the form of digital data. This will require the adoption of a Standard for an aeronautical data exchange model to ensure interoperability between all systems not only for the exchange of full aeronautical data sets, but also for short-term notification of changes.

¹ Preferred ATM Service Levels (PASL) Phase 1 – (expected implementation by 12 November 2015); Seamless ATM Plan element 7.38.

4.17 AIM Transition Phase 2 step P-11 – *Electronic AIP* related to the implementation of the electronic version of the AIP in two forms; a printable document, and one that could be viewed by web browsers. The Phase 3 Step P-09 – *Aeronautical Data Exchange* related to the definition of the information exchange model.

Quality, Data Quality and Data Integrity Monitoring (IP/02)

4.18 Indonesia presented an overview of both of DGCA and AIRNAV progress towards the Roadmap for the Transition from AIS to AIM Phase 1 (Consolidation) and Phase 2 (Going Digital) in respect to Quality Management.

4.19 In accordance with an Indonesian government directive, DGCA was required to develop, and AIRNAV to implement, a Quality Management System in compliance with ICAO Annex 15 – *Aeronautical Information Services* and Doc. 8126 – *Aeronautical Information Services Manual*. A working group had been created to develop a QMS manual after completion of a gap analysis. Training plans would be developed, and training of all AIS personnel was targeted for the end of 2016. Indonesia’s Quality Manual and documented procedures would be developed by the end of 2015.

Electronic Terrain and Obstacle Data (IP/03)

4.20 The meeting was provided with an overview of Indonesia’s progress towards the provision of terrain and obstacle data. DGCA Indonesia was identified as the responsible body for coordination of terrain and obstacle data implementation, including the identification of all stakeholders in order to determine responsibilities, and to develop a feasible plan for implementation. A series of regional seminars was held to brief all parties on ICAO requirements for terrain and obstacle data.

4.21 A Task Force led by DGCA would allow for a coordinated implementation plan and a common understanding of actions that needed to be taken.

4.22 Further DGCA action would include *inter alia* assessment of current data sources, monitoring of surveyors, and validation and verification of new and existing data.

4.23 It was noted by the meeting that States needed to define “regularly used by international civil aviation²” to determine their needs for eTOD, e.g. airports with only category A or B operations, no RNP approaches, etc.

Commencement of eTOD in Japan (IP/05)

4.24 Japan presented information on the commencement of provision of eTOD in Japan utilizing the existing data for Area 1, Area 2 and Area 4. The data for eTOD will be prepared by making the most of the data that the organizations concerned currently possess and no new survey will be performed to implement eTOD.

4.25 Many obstacles for Area 1 in Japan were not surveyed data and did not meet the accuracy requirement provided by ICAO SARPs. Such data would be provided with the remark that they did not meet the accuracy specification required by ICAO SARPs.

² Annex 15 sections 10.1.4 to 10.1.9 (standards and recommended practices for electronic terrain and obstacle data for aerodromes and their vicinity.)

4.26 It was essential to establish a system to provide data that was compliant with the ICAO SARPs for all Areas, although it would take some time. For the time being, the data for Area 2 and Area 4 would be provided by prioritizing airports, firstly for the airports that were regularly used for international civil aviation and then for other airports.

Need for Cooperation in AIM Training (IP/06)

4.27 Mongolia provided information highlighting the need for cooperation among Contracting States in the Asia and Pacific region regarding AIM implementation, in particular training for static and dynamic data management in AIXM environment, eAIP and quality management system.

4.28 Based on observations from visits to different States' AIS services and AIM meetings, it appeared that in a number of States the administrative organization, size and working arrangements were not effective; AIS was not established as a separate unit but as part of Air Traffic Services or Communication, Navigation and Surveillance organizations. In many cases ATC staff worked as AIS officers, in turn working for both AIS and ATS. The view of the meeting was that it was more appropriate that AIS be established as a separate unit or department within its organization, with its personnel and management focused wholly on AIS/AIM.

4.29 Regional cooperation in AIM training was important to ensure harmonized implementation throughout the region.

4.30 Mongolia advised the meeting that they were developing a Standard AIS Training Package in cooperation with the Civil Aviation Training Center of Mongolia (a TRAINAIR PLUS member), and was open to opportunities for collaboration and technical assistance in AIM transition. In cooperative activities through the other organizations including Continuing Development of Operational Safety and Continuing Airworthiness Program (COSCAP), industry partners, and the International Federation of Aeronautical Information Management Associations (IFAIMA), Mongolia had provided assistance to other States in AIS training, and AIM automation system and quality management system implementation.

Agenda Item 5: Any Other Business

ICARD Update (WP/05)

5.1 The Secretariat provided an update on ICAO International Codes and Route Designators application (ICARD) and participation by Asia/Pacific States, discussing ICARD procedural issues.

5.2 The information provided included discussion of the purpose of ICARD and the user registration process, an update of regional participation in ICARD, common errors, proximity checks, the process flow for requesting 5LNC, ATS route designator allocation, and ICARD_5LNC_Manager actions.

5.3 The common errors discussed included:

- Publication of 5LNC in AIP before they have been approved in ICARD;
- States allocating 5LNC from their ICARD Reserve List, but failing to first complete the process of registering the 5LNC in ICARD.
 - *States must ensure that 5LNC selected for use are fully registered through the ICARD Request for Code Allocation process.*

- Publication of ATS routes and/or new or amended 5LNC on dates other than AIRAC dates, and with less than the advance notification specified in Annex 15 (**Figure 3**);
 - States must ensure compliance with the Standards and Recommended Practices (SARPS) relating to advance notification of new or amended aeronautical information, defined in Annex 15 Section 6.2.
- Completing the Proximity Check checkbox in ICARD to indicate the proximity has been done, when it has clearly either not been done or has not been correctly done;
- Registering 5LNC in ICARD before the coordinates of the waypoint have been validated.
 - Annex 11 and the ICARD rules do not permit the relocation of a 5LNC.

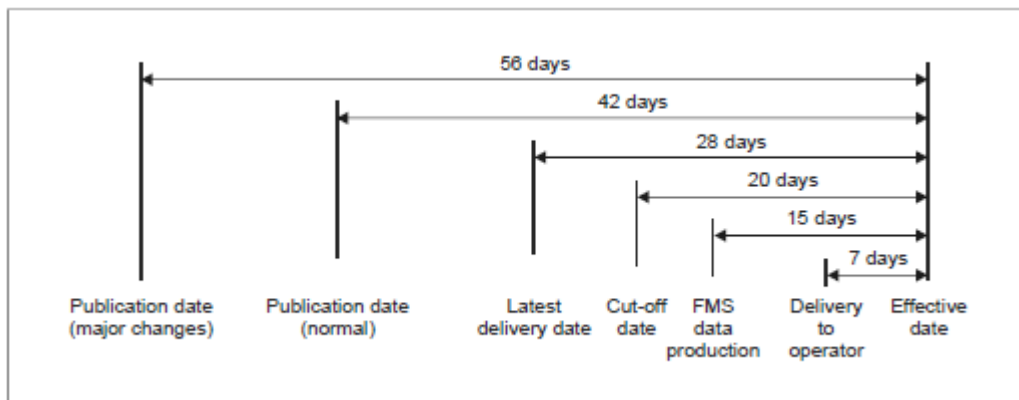


Figure 3: Processing Cycle for Airborne Navigation Databases (Source: Doc 8126 – AIS Manual)

5.4 **AAITF/10 WP/05 Attachment A** provided instructions for the ICARD registration process;

5.5 **AAITF/10 WP/05 Attachment B** listed the current 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.

5.6 A proposed algorithm was provided in **AAITF/10 WP/05 Attachment C** for consideration of States to use as an aid in the detection of like-sounding confusion during proximity checks. Improvements in correct detection of like-sounding or easily confused codes would result in less time consuming rejections of code requests by the ICARD_5LNC_MANAGER.

Interim AIM Transition Guidance (WP/07)

5.7 The Secretariat provided draft AIM Transition Guidance for consideration by AAITF, to provide interim guidance on implementation of key AIM transition steps pending the availability of ICAO global guidance material. AAITF/9 had noted that the lack of AIM transition guidance material was causing significant concern. While recognizing that any independently developed regional guidance material could risk encouraging States to implement AIM in ways that were either not supported by or running counter to the delayed global guidance material, AAITF/9 had agreed to continue to work on guidance material for identified high priority AIM transition steps.

5.8 The following guidance material supporting the ICAO Roadmap for Transition from AIS to AIM was being developed by the ICAO AIS-AIM Study Group (AIS-AIM/SG):

- Doc 8126 – *AIS Manual* (update);
- Doc 9839 – *Quality Manual* (new);
- Doc 9991 – *AIM Training Development Manual* (new);
- Doc 9881 – *eTOD/AMDB Manual* (final validation and editing);
- Doc 9674 – *WGS-84 Manual* (update - accuracy & heighting);
- Doc 8697 – *Charting Manual* (update);
- Doc 9855 – *Guidelines on the use of the Public Internet for Aeronautical Applications* (update);
- Doc 8400 – ICAO Abbreviations and Codes (PANS-ABC – update) and
- AIM Concept (new);

5.9 Delivery of the above documents had been further delayed beyond the latest advised timeframe (Q2/3 2014). The latest information from ICAO Headquarters was that most of these documents were undergoing final drafting and/or editing, but publication dates had not yet been finalized.

5.10 Other documents under development were the updated Annex 15 – *Aeronautical Information Services*, and the new *Procedures for Air Navigation Services – Aeronautical Information Management* (PANS-AIM).

5.11 The lack of global guidance material was viewed by AAITF/9 to be a significant obstacle in States' AIM implementation progress, and presented challenges to their efforts to implement AIM transition steps within timeframes defined by Annex 15 applicability and the Asia/Pacific Seamless ATM Plan's performance objectives. AAITF/9 had consequently agreed to work on AIM transition guidance material for 4 identified priority AIM transition steps: P-17 – *Quality*, P-16 – *Training*, P18 – *Agreements with data originators*, and P-11 *Electronic AIP*.

5.12 Draft Interim AIM Transition Guidance, intended to provide States with a simple checklist of references and information pending publication of the ICAO global guidance documents and PANS-AIM, was reviewed by the meeting. It was proposed that the Interim AIM Transition Guidance should form an appendix to the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*, which was available on the ICAO Asia/Pacific Regional Office website at <http://www.icao.int/APAC/Pages/edocs.aspx>.

5.13 The meeting agreed to the following Draft Conclusion:

Draft Conclusion AAITF/10-3: Interim AIM Transition Guidance

That, the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region* be updated to include as an appendix the Interim AIM Transition Guidance appended at **Appendix E to this report**.

5.14 Following the availability of the ICAO publications supporting AIM transition there would be a need to familiarize stakeholders with their contents. Recognizing also the performance objectives of the Asia/Pacific Seamless ATM Plan (AIM Transition Phases 1 and 2 implemented by November 2015), there would be a need for amendment or further development of the Regional

guidance. The meeting therefore agreed to the following Draft Decision:

Draft Decision AAITF/10-4: AIM Transition Seminars/Workshops

That, ICAO be urged to facilitate Asia/Pacific AIM Transition Seminars/Workshops to:

4. Familiarize stakeholders with the new and amended ICAO publications developed by the ICAO AIS-AIM Study Group;
5. Assist States in developing AIM implementation plans; and
6. Act as a forum for further development and updating of the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*.

5.15 In discussing and amending the draft Interim Guidance for AIM Transition, the meeting also made the following observations:

- Some States were having difficulty in developing a quality manual, and requested an example of a current quality manual;
- Locating training organizations qualified to train AIM staff in quality management was difficult;
- A template for agreements with data originators would provide valuable guidance;
- EUROCONTROL had developed a template that had been adapted by Mongolia to form a template for service level agreements (SLA) between data originators and AIS;
- The type of formal agreement between AIS and data originators would be dependent on the type of agreement that was acceptable under the laws of the individual State;
- Guidance was not yet available for training in the transition from AIS to AIM;
- Guidance was needed on a training structure for sub-units of AIS, with a structured syllabus for each specialization;
- Differentiation between eAIP as defined in Annex 15 and an eAIP generated from a digital database of aeronautical information and thus suitable for future aeronautical information exchange was problematic;
- While it may be appropriate to reference AIXM as the model for future aeronautical information exchange, it was not yet appropriate to specify the version number;
- APANPIRG *Conclusion 24/19: Electronic AIP*, in urging States to *inter alia* ensure the eAIP had the unconditional authority of the State without disclaimers referring to a separately published paper product, was intended to encourage States to ensure that their internet accessible eAIP was a fully authorized version of the State AIP, rather than restricting any rights of the State to include disclaimers relating to the subsequent use of the information by other parties;
- While the migration of text-based AIP information, eTOD and other static data into digital databases was relatively straightforward, the migration of conventional

instrument approach and landing charts to a digital form presented a significant challenge. There was no current capability available for the automatic generation of conventional charts from digital data.

5.16 The meeting was reminded of the ICAO Information Management Panel, which included in its terms of reference the development of transition strategies and guidance necessary for implementation of global System-Wide Information Management and new information exchange formats, and the further evolution and work on AIM beyond the current AIS-AIMSG work.

IFAIMA Global AIM 2015 (Presentation 2)

5.17 Viet Nam presented information on the International Federation of Aeronautical Information Management Associations (IFAIMA) Global AIM 2015 conference, which would be held in Ha Noi, Viet Nam, from 9 to 11 June 2015. The event would provide the opportunity for participants to gain knowledge and information from a broad range of aeronautical information regulators, service providers, system vendors, users and AIM experts from around the globe. AAITF participants were encouraged to attend the event.

Agenda Item 6: Review of the Task List

6.1 The Secretariat presented WP/06, reviewing the AAITF Terms of Reference (TOR) and Task List.

6.2 In reviewing the TOR the meeting discussed the future direction of AAITF, and what it was expected to achieve. It was noted that only 7 working papers and 6 information papers had been presented to this meeting, and that no States had presented working papers.

6.3 It was also noted that achievement of the AAITF objectives listed in the Terms of Reference were dependent on global guidance material supporting AIM transition that had not yet been delivered, most notably including the updated Doc 8126 – AIS Manual, and the new AIS Training and AIS Quality manuals. However, it was agreed that AAITF could continue to work towards its objectives pending the delivery of the relevant documents. It was therefore agreed that AAITF would, as near term objectives:

1. Review and update the quality management guidance and sample quality manual provided in the Guidance Manual for AIS in the Asia/Pacific Region;
2. Review the global guidance material relating to AIM transition when it became available, and draft recommendations for implementation within the APAC Region;
3. Conduct one-day seminars/workshops on selected topics in conjunction with each AAITF meeting. A topic agreed for AAITF/11 was processes, considerations and challenges in the migration of aeronautical information into digital databases. Other topics would be considered and proposed offline.

6.4 The meeting considered that guidance should be developed in all phase 2 transition steps. It was noted that existing task list items, and the review of global guidance material, would adequately address this in the near term.

6.2 The meeting agreed to the updated task list included as **Appendix F** 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 2016, 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/10
Appendix A to the Report

List of Participants

	Name		Title/Organization	TEL/FAX/E-MAIL
1.	BANGLADESH (3)			
	1.	Mr. Mohammad Hamidul Haque	Deputy Director (Radar & Navaid) Communication Division Civil Aviation Authority of Bangladesh CAAB Headquarter, Kurmitola Dhaka -1229 Bangladesh	Tel: +880 2 890 1433 Fax: +880 2 890 1428 Email: ddrn@caab.gov.bd hamidul161@yahoo.com
	2.	Mr. Beni Madhab Biswas	Assistant Director (Com. Ops.) Communication Division Civil Aviation Authority of Bangladesh CAAB Headquarter, Kurmitola Dhaka -1229 Bangladesh	Tel: +880 2 890 1082 Fax: +880 2 890 1428 Email: adcomops@caab.gov.bd
	3.	Mr. Shamsul Haque	Senior Aerodrome Officer Civil Aviation Authority of Bangladesh Room Nr.304, 2 nd floor, ATS & Aerodrome Division CAAB Headquarter, Kurmitola Dhaka -1229 Bangladesh	Tel: + 880 2890 1404 Fax: + 880 2890 1411 E-mail: shamsul2711@yahoo.com
2.	CAMBODIA (2)			
	4.	Mr. Peou Vuthy	Chief of AIS State Secretariat of Civil Aviation No. 62 Preah Norodom Blvd. Phnom Penh Cambodia	Tel: + 855 11 892 794 Fax: + 855 23 224 259 E-mail: ansops_ssca@yahoo.com

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
	5. Mr. Chhun Sivorn	Director of ANS State Secretariat of Civil Aviation No. 62 Preah Norodom Blvd. Phnom Penh Cambodia	Tel: + 855 12 866 659 Fax: + 855 23 224 259 E-mail: ans.ssca@gmail.com
3.	CHINA (7)		
	6. Mr. Hang Su	Deputy Director of ATC Division ATMB of CAAC No. 12 East 3rd Ring Road Middle Chaoyang district, Beijing 100022 China	Tel: +861087786813 Fax: +861087786810 Email: hanssued@atmb.net.cn
	7. Ms. Jing Yang	Assistant Airspace Management Center ATMB No. 12 East 3rd Ring Road Middle Chaoyang district, Beijing 100022 China	Tel: +861087786191 Fax: Email: yangjing@atmb.net.cn
	8. Mr. Hanzhi Xu	Engineer AIS Center, ATMB of CAAC P.O. Box 2272, Shilihe Chaoyang District, Beijing, 100122 China	Tel: +861067499207 Fax: +861067337224 Email: xuhanzhi@atmb.net.cn
	9. Mr. Jing Zhao	Engineer, Flight Service Center of Eastern China Regional ATMB of CAAC No. 171, 1 st Konggang Road, Hongqiao Airport, Shanghai China	Tel: +8613641971981 Fax: Email:

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
	10. Mr. Guolong Li	Engineer Flight Service Center of Southwestern Regional ATMB of CAAC Shuangliu Airport Chengdu Sichuan Province 610202 China	Tel: +862885703210 Fax: +862885705325 Email: 31774762@qq.com
	11. Ms. Can Zhao	Engineer Aviation Data Communication Corporation No. 238, North 4 th Ring Road Middle, Haidian District, Beijing 100191 China	Tel: +8613671147629 Fax: Email: zhaoc@adcc.com.cn
	12. Mr. Peng Zhao	Engineer Aviation Data Communication Corporation No. 238, North 4 th Ring Road Middle, Haidian District, Beijing 100191 China	Tel: +8613520116296 Fax: Email: zhaop@adcc.com.cn
6.	HONG KONG, CHINA (1)		
	13. Ms. Yip Sau Kuen	Technical Support Officer Civil Aviation Department, Hong Kong, China 1 Tung Fai Road, Hong Kong International Airport Lantau Hong Kong, China	Tel: +852 2910 6287 Fax: +852 2845 7160 Email: jskyip@cad.gov.hk
6.	MACAO, CHINA (4)		
	14. Mr. Lam Taft Ming	Senior Safety Officer Civil Aviation Authority of Macao Alameda Dr. Carlos D'Assumpção 336-342, Centro Comercial Cheng Feng, 18 andar Macao, China	Tel: +853 (28) 511213 Fax: +853 (28) 338089 E-mail: taftlam@aacm.gov.mo ;

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
	15. Mr. Ip Veng Chon	Assistant Safety Officer Civil Aviation Authority of Macao Alameda Dr. Carlos D'Assumpção 336-342, Centro Comercial Cheng Feng, 18 andar Macao, China	Tel: +853 (28) 511213 Fax: +853 (28) 338089 E-mail: edwardip@aacm.gov.mo ;
	16. Ms. Choi Vai Man	Head of AIC Services Administration of Airport Ltd Macao International Airport Taipa Macao, China	Tel: +853 8898 2200 Fax: +853 2886 1145 E-mail: brendahchoi@ada.com.mo
	17. Mr. Cheang Koi Cheng	Senior ITC Engineer, Administration of Airport Ltd Macao International Airport Taipa Macao, China	Tel: +853 8898 2359 Fax: +853 8898 2387 E-mail: cleskey.cheang@ada.com.mo
7.	FIJI (2)		
	18. Mr. Ilaitia M Tabakaucoro	Air Traffic Management Inspector – AIS/PANs-Ops Civil Aviation Authority of Fiji Private Mail Bag, NAP0354 Nadi Airport Fiji	Tel: +679 6721555 ext 3400 Fax: +679 6720261 E-mail: ilaitia.tabakaucoro@caaf.org.fj
	19. Mr. Isoa Nasila	Senior Aeronautical Technical Officer Airport Fiji Limited c/- Airport Fiji Limited, Private Mail Bag Nadi Airport Fiji Islands	Tel : +679 990 6111 Fax : Email : isoan@afl.com.fj
8.	INDONESIA (4)		

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
	20. Mr. M. Mega Herdiyansya	Directorate General of Civil Aviation Ministry of Transportation Jalan Medan Merdeka Barat No. 8 Karsa Building 5th Floor Jakarta 10110 Indonesia	Tel: +62 (21) 350 5137 Fax: +62 (21) 350 5139 E-mail:
	21. Mr. Farid Wajdi	Operation Support Senior Manager Airnav Indonesia Jalan Ir. H. Juanda Tangerang Banten 15121 Indonesia	Tel: +(62) (21) 55915000 Fax: +(62) (21) 55915100 E-mail : farizd_aismap@yahoo.com
	22. Mr. Deden Kusnadi	Airnav Indonesia Jalan Ir. H. Juanda Tangerang Banten 15121 Indonesia	Tel: +(62) (21) 55915000 Fax: +(62) (21) 55915100 E-mail :
	23. Mr. Yayat Supriyatna	Airnav Indonesia Jalan Ir. H. Juanda Tangerang Banten 15121 Indonesia	Tel: +(62) (21) 55915000 Fax: +(62) (21) 55915100 E-mail :
9.	JAPAN (1)		
	24. Mrs. Kiyoko Mochizuki	Deputy Chief Aeronautical Information Officer Aeronautical Information Service Center 133 Kanemae Furugome Narita-shi Chiba 282-0004 Japan	Tel: +81-476-33-5507 Fax: E-mail: mochiduki-k4634@cab.mlit.go.jp
10.	MALAYSIA (4)		

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
	25. Mr. Tan Kim Sin	Senior Assistant Director Air Traffic Management Sector Department of Civil Aviation Malaysia No. 27 Persiaran Perdana, Level 4, Podium Block B Precinct 4, 62618 Putrajaya Malaysia	Tel: +603 887 4284 Fax: +603 8881 0530 E-mail : tanks@dca.gov.my
	26. Mr. Ahmad Kusairi B Abdul Wahab	Deputy Operations Officer Department of Civil Aviation Malaysia Kuala Lumpur Air Traffic Control Center Jalan Lapangan Terbang SSAAS 47200 Subang Selangor Malaysia	Tel: +601 3365 2433 Fax: +603 7845 6590 E-mail : khusairi@dca.gov.my
	27. Mr. Mohd Razmin Sham Mazlan	AIS Senior Engineer Department of Civil Aviation Malaysia Kuala Lumpur Air Traffic Control Center Jalan Lapangan Terbang SSAAS 47200 Subang Selangor Malaysia	Tel: +603 8737 0585 Fax: +603 8734 0585 E-mail : mrazmins@microtel.my
	28. Mr. Mohd Zarul Afizi Bin Mohd Zaki	System Engineer Air Traffic Management Sector Department of Civil Aviation Malaysia No. 27 Persiaran Perdana, Level 4, Podium Block B Precinct 4, 62618 Putrajaya Malaysia	Tel: +603 8737 0585 Fax: +603 8734 0585 E-mail : zarul@microtel.my
11.	MALDIVES (2)		

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
	29. Ms. Fathimath Samiya	AIS Manager Maldives Airports Company Limited Aeronautical Information Services Air Traffic Management Section Ibrahim Nasir International Airport Hulhule' 22000 Republic of Maldives	Tel : +960 777 9586 Fax : +960 331 3258 Email : samiya@macl.aero
	30. Mrs. Haseena Hadhee	Senior AIS Officer Maldives Airports Company Limited Aeronautical Information Services Air Traffic Management Section Ibrahim Nasir International Airport Hulhule' 22000 Republic of Maldives	Tel : +960 919 1266 Fax : +960 331 3258 Email : hasyna@macl.aero
12.	MONGOLIA (3)		
	31. Mrs. Ariungerel Purev	Director Aeronautical Information Services Division, Civil Aviation Authority of Mongolia Chinggis Khaan International Airport, P.O.Box-59, Ulaanbaatar 17120, Mongolia	Tel : +976 9911 1833 Fax : +976 7004 9838 Email : ariungerel@mcaa.gov.mn
	32. Mr. Nyambayar Batkhoo	AIS Specialist Aeronautical Information Services Division, Civil Aviation Authority of Mongolia Chinggis Khaan International Airport, P.O.Box-59, Ulaanbaatar 17120, Mongolia	Tel : +976 9905 2077 Fax : +976 7004 9838 Email : nyambayar.b@mcaa.gov.mn

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
	33. Mr. Uuganbayar Ganbaatar	Civil Aviation Authority of Mongolia Chinggis Khaan International Airport, P.O.Box-59, Ulaanbaatar 17120, Mongolia	Tel : +976 9905 2077 Fax : +976 7004 9838 Email :
13.	MYANMAR (2)		
	34. Mr. Kyaw Shein	AIS Officer Department of Civil Aviation AIS H.Q., ATC Operations Building Yangon International Airport Myanmar	Tel : +951 533 085 Fax : +951 533 006 Email : aiso@ais.gov.mm
	35. Ms. Mar Mar Nyein	AIS Officer Department of Civil Aviation AIS H.Q., ATC Operations Building Yangon International Airport Myanmar	Tel : +951 533 085 Fax : +951 533 006 Email : aiso@ais.gov.mm
14.	PHILIPPINES (1)		
	36. Mrs. Maria Rumela Gonzales Cortes	Facility in Charge Aeronautical Information Service – OPS Civil Aviation Authority of the Philippines AIS-OPS, 2 nd floor, Airway facility Complex CAAP Compound, MIA Road Pasay City Philippines	Tel: +32-8799-288 ext 113 Fax: E-mail:
15.	SINGAPORE (4)		
	37. Ms. Wong Liang Fen	Chief, Aeronautical Information Services Civil Aviation Authority of Singapore Singapore Changi Airport P.O. Box 1 Singapore 918141	Tel: +65-6595 6051 Fax: +65-6441 0221 E-mail: wong_liang_fen@caas.gov.sg

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
38.	Mr. Lim Eng Soon Andy	Engineer Air Traffic Management Systems (Eng. Ops) Section Aeronautical Telecommunication & Engineering Division Civil Aviation Authority of Singapore P.O. Box 1 Singapore 918141	Tel: +65-6541 2011 Fax: +65-6542 2447 E-mail: andy_lim@caas.gov.sg
39.	Ms. Ong Kian Wee Christina	Senior Engineer Air Traffic Management Systems (Eng. Ops) Section Aeronautical Telecommunication & Engineering Division Civil Aviation Authority of Singapore P.O. Box 1 Singapore 918141	Tel: +65-6596 6002 Fax: +65-6542 2447 E-mail: christina_ong@caas.gov.sg
40.	Mr. Victor Lee Hoong Kwan	Senior Inspector CNS Aerodrome & Air Navigation Services Regulation Division Civil Aviation Authority of Singapore P.O. Box 1 Singapore 918141	Tel: +65-6541 2476 Fax: +65-6542 3869 E-mail: victor_lee@caas.gov.sg

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
16.	SRI LANKA (2)		
	41. Ms. Vineetha Senanayake	Senior Aeronautical Information Services Officer Civil Aviation Authority of Sri Lanka No.4, Hunupitiya Road Colombo Sri Lanka	Tel: +94-11-2358914 Fax: +94-11-2304641 E-mail: saiso@caa.lk
	42. Mr. Manjula Parakrama Bowatte	Officer-in-Charge AIS Airport and Aviations Services Ltd. (S.L.) Aeronautical Information Services (AIS) Bandaranaike International Airport Sri Lanka	Tel: +94-11-226 4829 Fax: +94-11-225 9916 E-mail: smpb.ais.ans@airport.lk
17.	THAILAND (5)		
	43. Ms. Wilasinee Phanngam	Transport Technical Officer, Professional Level Airport Standards Division Department of Civil Aviation 71 Soi Ngarmdu-Plee Tungmahamek Bangkok 10120 Thailand	Tel: +66 (2) 2870320-9 ext 2855 Fax: +66 2 287 4060 E-mail: wilasinee.p@aviation.go.th ;
	44. Mr. Wittaya Pitoonkitja	Transport Technical Officer, Professional Level Airport Standards Division Department of Civil Aviation 71 Soi Ngarmdu-Plee Tungmahamek Bangkok 10120 Thailand	Tel: +66 (2) 2870320-9 ext 2854 Fax: +66 2 287 4060 E-mail: witaya.pi@aviation.go.th ;

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
	45. Mr. Bunpot Kujaphan	Aeronautical Information Manager Aeronautical Radio of Thailand Ltd. 102 Ngarmduplee Tungmahamek Bangkok 10120 Thailand	Tel: Fax: E-mail: bunpot.ku@aerothai.co.th ;
	46. Mr. Somboon Saelim	Air Traffic Engineering Manager Aeronautical Radio of Thailand Ltd. 102 Ngarmduplee Tungmahamek Bangkok 10120 Thailand	Tel: Fax: E-mail: somboon.sa@aerothai.co.th ;
	47. Ms. Siree Vatanavigkit	Strategic Planning Manager (Engineering) Aeronautical Radio of Thailand Ltd. 102 Ngarmduplee Tungmahamek Bangkok 10120 Thailand	Tel: Fax: E-mail: siree.va@aerothai.co.th ;
20	VIET NAM (4)		
	48. Ms. Tran Duc Hoai Phuong	Deputy Director of Air Navigation Department Civil Aviation Authority of Viet Nam 119 Nguyen Son, Long Bien Distrcit Ha Noi, Viet Nam	Tel : +84 4 3873 1611 Fax : +84 4 3827 4194 Email : phuongtd@caa.gov.vn
	49. Ms. Nguyen Thi Hang	AIS Officer ATS Department Viet Nam Air Traffic Management Coorpearion 6/200 Nguyen Son, Long Bien District Ha Noi, Viet Nam	Tel : +84 978 399 557 Fax : +84 43 8725 281 Email : hangnguyenais@gmail.com

AAITF/10
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
	50. Ms. Hoang Thi Thu Thuy	Vice Team Leader of Noi Bai ARO Airport Management Center Airports Corporation of Viet Nam Noi Bai International Airport Soc Son district Ha Noi, Viet Nam	Tel : +84 907 567 799 Fax : Email : linhmymam@yahoo.com
	51. Mr. Cao Quoc Phong	Team Leader of Noi Bai ARO Airport Management Center Airports Corporation of Viet Nam Tan Son Nhat International Airport Tan Binh district Ho Chi Minh City, Viet Nam	Tel : +84 978 399 557 Fax : +84 43 8725 281 Email : hangnguyenais@gmail.com
21	UNITED STATES (1)		
	52. Mr. Brian Bagstad	Senior ATO Representative, Asia and Pacific Region Federal Aviation Administration c/o US Embassy Singapore 27 Napier Road Singapore 258508	Tel: +65-6476 9462 E-mail: brian.bagstad@faa.gov
22	ICAO (1)		
	53. Mr. Shane Sumner	Regional Officer, Air Traffic Management ICAO Asia & Pacific Office 252/1 Vibhavadi Rangsit Rd Ladyao, Chatuchak Bangkok 10900, Thailand	Tel: +66-2-5378189 ext 159 Fax: +66-2-5378199 E-mail: ssumner@icao.int



AAITF/10
Appendix B to the Report
International Civil Aviation Organization

**The Tenth Meeting of the Asia/Pacific Aeronautical Information Services –
Aeronautical Information Management Implementation Task Force
(AAITF/10)**

Bangkok, Thailand, 27-30 April 2015

PROVISIONAL 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	5	ICARD Update	Secretariat
WP/6	6	Review of AAITF Task List	Secretariat
WP/7	5	Interim AIM Transition Guidance	Secretariat

INFORMATION PAPERS

NUMBER	AGENDA	INFORMATION PAPERS	PRESENTED BY
IP/1	-	List of Working Papers (WPs) and Information Papers (IPs)	Secretariat
IP/2	4	Quality, Data Quality and Data Integrity Monitoring	Indonesia
IP/3	4	Electronic Terrain and Obstacle Data	Indonesia
IP/4	2	Coordination between APAC PBNICG and AAITF	Secretariat
IP/5	4	Commencement of eTOD in JAPAN	Japan
IP/6	4	Need for Cooperation in AIM Training	Mongolia

AAITF/10
Appendix C to the Report

AIS Deficiencies List

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
<u>WGS-84</u>								
Requirements of Paragraph 3.7.1 of Annex 15	Afghanistan	WGS-84 - Not implemented	24/6/2014			Afghanistan	TBD	A
	Bangladesh	WGS-84 - Not implemented	24/6/2014			Bangladesh	TBD	A
	Bhutan	WGS-84 - Not implemented	2/7/1999	Data conversion completed, but not published		Bhutan	TBD	A
	Brunei Darussalam	WGS-84 - Not implemented	24/6/2014			Brunei Darussalam	TBD	A
	Cook Islands	WGS-84 - Not implemented	24/6/2014			Cook Islands	TBD	A
	Kiribati	WGS-84 - Not implemented				Kiribati	TBD	A
	Lao PDR	WGS-84 - Not implemented	24/6/2014			Lao PDR	TBD	A
	Maldives	WGS-84 - Not implemented	24/6/2014			Maldives	TBD	A

AAITF/10
Appendix C to the Report

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Marshall Islands	WGS-84 - Not implemented	24/6/2014			Marshall Islands	TBD	A
	Micronesia	WGS-84 - Not implemented	24/6/2014			Micronesia	TBD	A
	Nauru	WGS-84 - Not implemented		Conferring with consultant		Nauru	TBD	A
	Pakistan	WGS-84 - Not implemented	24/6/2014			Pakistan	TBD	A
	Palau	WGS-84 - Not implemented	24/6/2014			Palau	TBD	A
	Philippines	WGS-84 - Not implemented	24/6/2014			Philippines	TBD	A
	Samoa	WGS-84 - Not implemented	24/6/2014			Samoa	TBD	A
	Thailand	WGS-84 - Not implemented	24/6/2014	Phase 1 of a study project including WGS-84 implementation expected to be completed on 5 January 2015		Thailand	TBD	A

AAITF/10
Appendix C to the Report

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Vanuatu	WGS-84 - Implemented at main airports	2/7/1999			Vanuatu	1999	A
<u>AIP Format</u>								
Requirements of Chapter 4 of Annex 15	Cook Islands	AIP Format - Not implemented	7/7/99			Cook Islands	ATM/AIS/SAR/G/1 6 (June 2006) updated - AIP COOK ISLANDS in new format in progress with assistance of New Zealand	A
	Kiribati	AIP Format - Not implemented	7/7/99			Kiribati	ATM/AIS/SAR/SG/ 18 (June 2009) was advised AIP in draft stage	A
	Nauru	AIP Format - Not implemented	7/7/99			Nauru	ATM/AIS/SAR/SG/ 18 (June 2008) was advised work soon to start	A
	Papua New Guinea	AIP Format - Not implemented	7/7/99			Papua New Guinea	TBA	A
<u>AIS Quality Management System</u>								
Requirements of Paragraph 3.2.1 of Annex 15	Afghanistan	AIS Quality Management System - Not	24/6/2014			Afghanistan	TBD	A

AAITF/10
Appendix C to the Report

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
Quality Management System - Not implemented		implemented						
	Bangladesh	AIS Quality Management System - Not implemented	24/6/2014			Bangladesh	TBD	A
	Bhutan	AIS Quality Management System - Not implemented	24/6/2014			Bhutan	TBD	A
	Brunei Darussalam	AIS Quality Management System - Not implemented	24/6/2014			Brunei Darussalam	TBD	A
	Cambodia	AIS Quality Management System - Not implemented	24/6/2014			Cambodia	TBD	A
	Cook Islands	AIS Quality Management System - Not implemented	24/6/2014			Cook Islands	TBD	A

AAITF/10
Appendix C to the Report

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	DPR Korea	AIS Quality Management System - Not implemented	24/6/2014			DPR Korea	TBD	A
	Indonesia	AIS Quality Management System - Not implemented	24/6/2014			Indonesia	TBD	A
	Kiribati	AIS Quality Management System - Not implemented	24/6/2014			Kiribati	TBD	A
	Lao PDR	AIS Quality Management System - Not implemented	24/6/2014			Lao PDR	TBD	A
	Maldives	AIS Quality Management System - Not implemented	24/6/2014			Maldives	TBD	A
	Marshall Islands	AIS Quality Management System - Not implemented	24/6/2014			Marshall Islands	TBD	A

AAITF/10
Appendix C to the Report

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Micronesia	AIS Quality Management System - Not implemented	24/6/2014			Micronesia	TBD	A
	Nauru	AIS Quality Management System - Not implemented	24/6/2014			Nauru	TBD	A
	Nepal	AIS Quality Management System - Not implemented	24/6/2014			Nepal	TBD	A
	Pakistan	AIS Quality Management System - Not implemented	24/6/2014			Pakistan	TBD	A
	Palau	AIS Quality Management System - Not implemented	24/6/2014			Palau	TBD	A
	Papua New Guinea	AIS Quality Management System - Not implemented	24/6/2014			Papua New Guinea	TBD	A

AAITF/10
Appendix C to the Report

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
		implemented						
	Philippines	AIS Quality Management System - Not implemented	24/6/2014			Philippines	TBD	A
	Samoa	AIS Quality Management System - Not implemented	24/6/2014			Samoa	TBD	A
	Solomon Islands	AIS Quality Management System - Not implemented	24/6/2014			Solomon Islands	TBD	A
	Thailand	AIS Quality Management System - Not implemented	24/6/2014	Phase 1 of a study project including QMS implementation expected to be completed on 5 January 2015		Thailand	TBD	A
	Timor Leste	AIS Quality Management System - Not implemented	24/6/2014			Timor Leste	TBD	A
	Vanuatu	AIS Quality Management System - Not implemented	24/6/2014			Vanuatu	TBD	A

AAITF/10
Appendix C to the Report

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Viet Nam	AIS 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

State Name = No reports since AATF/9

= progress reported

= amended progress reported

Part = AIP Book, but no AIP SUP or AIC

Date Last Amended: 18 June 2014

	Phase 1 Consolidation (Am. 36 November 2010)				Phase 2 Going Digital (Amendment 37 November 2013)										Phase 3 Information Management (Amendment 38 November 2016)								
	P-03	P-04	P-05	P-17	P-01	P-02	P-06	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	
										eAIP	Digital ¹												
Afghanistan																							
Australia	√	√	√	√	80%	√	√	√	60%	Link		√	75%				10%	60%			90%	5%	
Bangladesh	√	√	60%	√	√	√	70%	√		Part			60%			20%				20%			
Bhutan																							
Brunei Darussalam																							
Cambodia	√	√	√	10%						Part						70%		40%					
China	√	√	√	√					40%	Link								√	√		√		
Hong Kong, China	√	√	√	√	√	√				Link		√	√					40%	√				
Macao, China	√	√	√	√						Link								√	√				
Cook Islands																		√					
DPR Korea			√																				
Fiji	√	√	√	√			√	√	√	Link			√			√	√	√					
India	√	√	√	√	√	√	√	√	√				√										
Indonesia	√	√	√	65%	50%	50%	50%	20%	20%	Link		30%	30%	10%		80%		60%	20%	10%	20%		
Japan	√	√	√	√	√	√	√	√	√	Link		80%	50%		80%	20%	60%	√	√		20%	20%	
Kiribati																							
Lao PDR	√	√	25%																				
Malaysia	√	√	√	√	√	√	√	√	√	Link		50%	50%	50%	√	√	√	√			50%		
Maldives			√							Link													
Marshall Islands																							
Micronesia																							
Mongolia	√	√	√	√	√	√	√	80%	√	Link		65%	28%	5%	20%	10%	√	90%	√		√		
Myanmar	√	√	√	√	√	√	20%	20%	20%	Link		√	√	20%	20%	50%	50%	80%	80%	80%	80%	20%	
Nauru																							
Nepal	√	√	√										30%	30%									
New Zealand	√	√	√	√	√	√	√	√	75%	Link		√	80%	15%	80%								
Niue (NZ)																							
Pakistan	√	√	√										√		√	√	√		√			√	
Palau										part													
Papua New Guinea	√	√	√	90%				√									10%						
Philippines	√	√	60%	50%	√	50%	√	√	√	50%													
Republic of Korea	√	√	√	√	√			√	√									√	√		40%	90%	
Samoa																							
Singapore	√	√	√	√	√	√	50%	√	√	Link		60%	60%	25%	√	√	√	√	√		√		
Solomon Islands			√																				
Sri Lanka	√	√	√	95%			25%			Link						25%	25%	20%	25%				
Thailand	√	√	80%	40%	40%	30%				Link		25%	25%		10%	5%							
Timor Leste			√																				
Tonga		√	√	√																			
Vanuatu																							
Viet Nam	√	75%	√	25%	50%	50%	50%		√	Link					√	√		70%	50%				
USA ²	√	√	20%	√	√	√	25%	√	50%	part		√	√	√	√	√		70%	√	25%	√	√	
France ³	√	√	√	√	√	√		√		Link													

¹ Electronic AIP generated from a digital database of aeronautical information.
² Includes American Samoa, Guam, Johnston, Kingman, Midway, Mariana, Palmyra, Wake
³ Includes French Polynesia, New Caledonia, Wallis and Futuna Islands

INTERIM AIM TRANSITION GUIDANCE

Introduction

1.1 The Ninth Meeting of the Asia/Pacific Region AIS – AIM Implementation Task Force (AAITF/9, Pattaya, Thailand, 24 – 27 June 2014), recognized that the lack of AIM transition guidance material was a matter of significant concern to Administrations. There had been delays in the production of global ICAO guidance documents, those of most immediate significance being the updated Doc 8126 *AIS Manual*, the new Doc 9839 *Quality Manual* and Doc 9991 *AIS Training Manual*.

1.2 The lack of global guidance material was proving to be a significant obstacle in States' AIM implementation progress. This would present considerable challenges to their efforts to implement AIM transition steps within timeframes defined by the applicability of Standards and Recommended Practices (SARPS) defined in Annex 15 to the Convention on Civil Aviation, and the performance objectives of the Asia/Pacific Seamless ATM Plan.

1.3 AAITF/9 noted that any independently developed regional guidance material could risk encouraging States to implement AIM in ways that may be divergent from anticipated global guidance. However, also noting that availability of global guidance material had been progressively delayed from Q1/2 2012 to Q3/4 2013 then Q2/3 2014, the Task Force agreed to continue work on Regional AIM transition guidance material for key AIM transition steps from the ICAO *Roadmap for Transition from AIS to AIM*.

1.4 4 priority AIM transition steps were identified:

- P-17 – *Quality*;
- P-16 – *Training*;
- P-18 – *Agreements with data originators*;
- P-11 – *Electronic AIP*.

1.5 The following guidance material is provided in the form of a checklist of considerations, together with brief explanatory material, for each of the four identified steps. References to SARPS and existing guidance material are provided. Contributions provided by Australia, India, Japan, Malaysia, Singapore and Thailand were reviewed and agreed by AAITF/10 (Bangkok, Thailand, 27 – 30 April 2015).

1.6 Global AIM guidance documents, when published, will be reviewed by AAITF. The outcomes of that review will determine the need for continuing regional guidance material.

.....

P-17 – Quality

Roadmap for Transition from AIS to AIM

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.

The transition step P-17 – Quality is one of four steps in AIM Transition Phase 1 – *Consolidation*. In this phase States were expected to enhance the quality of their existing AIS products, to conform to SARPS existing at the time of publication of the Roadmap.

Along with the other Phase 1 transition steps, P-17 – Quality is a prerequisite for commencement of the transition from AIS to AIM.

Annex 15 – Aeronautical Information Services

1.1 Amendment 30 to Annex 15, applicable from 2 November 2000, introduced the following Standard:

3.2 Quality system

3.2.1 Each Contracting State shall take all necessary measures to introduce a properly organized quality system containing procedures, processes and resources necessary to implement quality management at each function stage as outlined in 3.1.7 above. The execution of such quality management shall be made demonstrable for each function stage, when required.

1.2 The wording of the paragraph was subsequently simplified in Amendment 36 to the Annex, applicable from 18 November 2010:

3.2 Quality management system

3.2.1 Quality management systems shall be implemented and maintained encompassing all functions of an aeronautical information service, as outlined in 3.1.7. The execution of such quality management systems shall be made demonstrable for each function stage, when required.

1.3 The following Annex 15 references specify addition SARPS for aeronautical information quality, and quality management systems:

1.1 Definitions

Aeronautical information management (AIM). *The dynamic, integrated management of aeronautical information through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties.*

Data quality. A degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution and integrity.

Metadata. *Data about data (ISO 19115*).*

Note.— *A structured description of the content, quality, condition or other characteristics of data.*

Quality. Degree to which a set of inherent characteristics fulfils requirements (ISO 9000*).

Note 1.— *The term “quality” can be used with adjectives such as poor, good or excellent.*

Note 2.— *“Inherent”, as opposed to “assigned”, means existing in something, especially as a permanent characteristic.*

Quality assurance. *Part of quality management focused on providing confidence that quality requirements will be fulfilled (ISO 9000*).*

Quality control. *Part of quality management focused on fulfilling quality requirements (ISO 9000*).*

Quality management. *Coordinated activities to direct and control an organization with regard to quality (ISO 9000*).*

Requirement. *Need or expectation that is stated, generally implied or obligatory (ISO 9000*).*

Note 2.— *A qualifier can be used to denote a specific type of requirement, e.g. product requirement, quality management requirement, customer requirement.*

Traceability. *Ability to trace the history, application or location of that which is under consideration (ISO 9000*).*

Note.— *When considering product, traceability can relate to:*

- *the origin of materials and parts;*
- *the processing history; and*
- *the distribution and location of the product after delivery.*

Validation. *Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled (ISO 9000*).*

Verification. *Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled (ISO 9000*).*

Note 1.— *The term “verified” is used to designate the corresponding status.*

Note 2.— *Confirmation can comprise activities such as:*

- *performing alternative calculations;*
- *comparing a new design specification with a similar proven design specification;*
- *undertaking tests and demonstrations; and*
- *reviewing documents prior to issue.*

Chapter 2. Responsibilities and Functions.

2.1 State responsibilities

2.1.4 Each Contracting State shall ensure that the aeronautical data and aeronautical information provided are complete, timely and of required quality in accordance with 3.3.

Chapter 3. Aeronautical Information Management

- **3.2** Aeronautical data and aeronautical information validation and verification
- **3.3** Data quality specifications
(Accuracy, Resolution, Integrity)
- **3.4** Metadata
- **3.5** Data Protection
- **3.6** Use of Automation
- **3.7** Quality management system
- **3.8** Human Factors Considerations

Chapter 8. Pre-Flight and Post-Flight Information

- **8.2** Automated pre-flight information systems

Chapter 10. Electronic Terrain and Obstacle Data

- **10.4** Terrain and obstacle data product specifications

Chapter 11. Aerodrome Mapping Data

- **11.1** Aerodrome mapping data – requirements for provision

Appendix 7. Aeronautical Data Publication Resolution and Integrity Classification

Annex 4 – Aeronautical Charts

Chapter 5. Aerodrome Terrain and Obstacle Chart – ICAO (Electronic)

5.8 Chart data product specifications

Chapter 20. Electronic Aeronautical Chart Display – ICAO

20.4. Provision and updating of data

Appendix 6. Aeronautical Data Quality Requirements

ICAO Doc 8126 – AIS Manual

1.4 Guidance material for Quality Systems is included in the current edition of ICAO Doc 8126 – *AIS Manual* (Eighth Edition, published in 2003 and last amended in September 2009).

Chapter 1. Introduction

- **1.3** Quality System
- **1.6** Use of Automation

Chapter 9. Organization of an Automated Aeronautical Information Services System

- **9.2** Basic Principles
- **9.3** Users' Operational Requirements in an Automated AIS System
- ~~**9.6** Harmonization of AIS and MET Information~~

ICAO Doc 9674 – WGS-84 Manual

1.5 In addition to quality requirements for accuracy, resolution and integrity, the WGS-84 Manual provides detailed guidance for quality assurance of aeronautical data:

Chapter 6. Quality Assurance

Regional Guidance Material

1.6 Detailed Regional guidance material for Quality Systems is included in the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*, and available on the ICAO Asia/Pacific Regional Office website at <http://www.icao.int/APAC/Pages/edocs.aspx>.

Checklist of Considerations

Regulatory Considerations

1.7 **Regulations supporting aeronautical information quality must be established:**

Requirements for aeronautical information quality, and for formal agreements defining roles and responsibilities of data originators, AIS, aeronautical information production organizations (e.g. charting) and end users.

1.8 **Examples of Regulations for Aeronautical Information may be found at:**

[States to specify hyperlinks to regulations, e.g.]

Civil Aviation Safety Authority (Australia)

<http://www.casa.gov.au/scripts/nc.dll?WCMS:PWA::pc=PARTS175>.

1.9 **Clearly define the separate roles and responsibilities of regulator and service provider.**

Resources, Infrastructure and Systems

1.10 **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.

1.11 **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.

Processes and Procedures

1.12 **Develop an Aeronautical Information Quality Manual**

1.13 **Develop a Quality Manual**

A quality manual forms part of a hierarchy of policy, procedures and work instructions ensuring the robust application of quality management:

- Quality Manual – Quality management policy and requirements covering all work domains of the organization;
- Quality Procedures – developed for each department/unit of an organization to ensure compliance with the provisions of the Quality Manual;
- Work Instructions – the detailed instructions for the conduct of the operations of the section/unit (e.g. AIS), which include Quality Procedures.

Development of a quality manual should include the following:

1. Organizational commitment at all levels to implement a quality management system;
2. A work plan including necessary approvals and budget allocation;
3. Engagement of a QMS consultant to assist in understanding of quality management concepts and terms;
4. Defined quality policy and quality objectives (quality objectives renewed every year);
5. AIS process diagram including quality control connections;
6. Non-punitive reporting system to ensure true data on non-conformance;
7. Define corrective and protective actions;

8. Annual internal audit plan to ensure correct implementation of the QMS;

9. Bi-annual management review meetings;

10. ??

Guidance on the development of a Quality System for Aeronautical Information, and a sample Quality Manual, are provided in the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*. Detailed global guidance for quality management will be provided in the new ICAO Document 9839 – *Aeronautical Information Quality Manual*.

1.14 **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.

Ensure that:

- 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’; and
- changes to documents are reviewed and approved and identified in the document.

1.15 **Control of records**

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

Policy should ensure that detailed records associated with any change to published information are maintained and are traceable back to the originator of the change.

1.16 **Quality management of data input to aeronautical information databases during migration from aeronautical information products (i.e. paper AIP).**

Ensure quality management processes are in place to ensure the quality of data is validated during the migration of information into databases.

1.17 **Regular reviews of the entire Integrated Aeronautical Information Package**

Regular reviews of all elements of the Integrated Aeronautical Information Package should be undertaken to ensure the consistency, accuracy and timeliness of information, and the timely removal of redundant information.

The Integrated Aeronautical Information Package is defined in Annex 15 as a package in

paper, or electronic media which consists of the following elements:

- *AIP, including amendment service;*
- *Supplements to the AIP;*
- *NOTAM and PIB;*
- *AIC; and*
- *checklists and lists of valid NOTAM.*

1.18 The AIP document set is reviewed and updated at regular intervals (at least once per year, in accordance with AIRAC cycle)

1.19 Ensure compliance with AIRAC publication and effective dates, and with advance notification requirements specified in Annex 15.

Ensure 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

1.20 Data Quality (Accuracy, Resolution and Integrity):

Formal agreements must be in place between data originators, the AIS, data production organizations (e.g. charting) and end users, relating to the quality requirements, maintenance and amendment of data, and the procedures for coordination and communication.

Before submitting 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 should cross check the published data at each AIRAC date to ensure it remains valid.

Data originators to take immediate action to notify the AIS of any correction to data provided.

Data originators and AIS to assess the causes of error committed may be inadvertently and to take preventive measures.

1.21 Proof reading and peer review of AIP amendments, AIP Supplements and AIC before publication.

Check for typographical and other errors, and for inconsistency between elements of the

Integrated Aeronautical Information Package.

Review by data originators and aeronautical information service providers.

1.22 **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 the AIRAC and Annex 15 requirements for distribution.

1.23 **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.

1.24 **Corrective Action on Errors Identified after Publication.**

- Verify the nature of the error;
- Where necessary verify the correct information with the data originator;
- Take initial NOTAM action where appropriate, and initiate amendment to AIP and/or re-issue of AIP Supplement or AIC.

1.25 **Handling of multi-part NOTAMs**

Standardized format to indicate multi-part NOTAMs, to allow automatic processing

1.26 **Standard format for NOTAM query (RQN)**

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

1.27 **Single, published address and contact information for NOF**

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

Human Performance

1.26 **Ensure complete understanding of Aeronautical Information Management concepts including training of relevant staff in:**

- *National obligations under Annexes 4 and 15 to the Convention on Civil Aviation;*
- *National regulations supporting annexes 4 and 15;*

- *AIRAC cycle and Annex 15 requirements for advance notification of major changes;*
- *Definition of major changes;*
- *Quality requirements for accuracy, resolution and integrity; and*
- *Quality management concepts and processes.*

Train staff in Quality Management requirements

1.27

Regular Proficiency Checks

Ensure all staff in the aeronautical information chain are suitably trained, competent and diligent, and are familiar with any changes in processes or requirements.

Annex 1 to the Convention on Civil Aviation (Personnel Licensing) does not specify license requirements for Aeronautical Information Personnel. States may consider implementing a Certificate of Competency, together with a performance standards and assessment methodology, for the regular assessment of competency.

P-18 – AGREEMENTS WITH DATA ORIGINATORS

Roadmap for Transition from AIS to AIM

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.

The transition step P-18 – *Agreements with Data Originators* is one of eight steps in AIM Transition Phase 3 – *Information Management*. While the Asia/Pacific Region’s current focus is on implementation of Phases 1 and 2, it is recognized that formal agreements between stakeholders in the aeronautical information chain are a critical component of robust end-to-end quality management. Step P-18 is one of four complementary Roadmap steps related to the quality management of aeronautical data:

- P-17 – Quality;
- P-01 – Data Quality Monitoring;
- P-02 – Data Integrity Monitoring; and
- P-18 – Agreements with Data Originators.

Annex 15 – Aeronautical Information Services

1.1 The current provision in Annex 15 relating to agreements with data originators include:

3.7. *Quality management system*

3.7.1 *Quality management systems shall be implemented and maintained encompassing all functions of an aeronautical information service, as outlined in (section) 2.2. The execution of such quality management systems shall be made demonstrable for each function stage.*

Note.—Guidance material is contained in the Manual on the Quality Management System for Aeronautical Information Services (Doc 9839).

3.7.2 *Recommendation.— Quality management should be applicable to the whole aeronautical information data chain from data origination to distribution to the next intended user, taking into consideration the intended use of data.*

Note 1.— Quality management may be provided by a single quality management system or serial quality management systems.

Note 2.— Letters of agreement concerning data quality between originator and distributor and between distributor and next intended user may be used to manage the aeronautical information data chain.

- 1.2 The updated Annex 15, and new PANS-AIM currently being drafted by the ICAO AIS-AIM Study Group (AIS-AIM/SG) are expected to provide SARPS and/or procedures supporting agreements with data originators.

Checklist of Considerations

Regulatory Considerations

1.3 **Regulations for Data Quality and Timeliness**

States must Establish regulations detailing requirements and responsibilities for all data originators for the quality and timeliness of the provision of data, and the maintenance of data, and to ensure data quality as specified in Annex 15;

Owner of the facility to have agreement with the surveyor regarding conformance of required standards and practices.

1.4 **Regulations for Formal Agreements**

States should establish regulations requiring formal agreements for the exchange of aeronautical data between data originators, AIS, aeronautical data service providers and end users.

Process and Procedures

1.5 **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.

1.6 **Specify the format for data to be provided by data originators.**

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

1.7 **Surveyed Geospatial Data.**

Agreements should clearly specify the responsibility of all parties to the agreement regarding ownership, maintenance and update of the data.

Facility owners such as airport operators should have formal agreements with surveyor organizations to ensure the data conforms with the required standards and practices.

1.8 **Formal Agreements**

Agreements may be in the form of a Contract, a Service Level Agreement (SLA), Memorandum of Understanding (MOU) or Letter of Agreement (LOA).

Formal agreements should include:

- Applicable national regulatory requirements;
- The scope of the data to be provided;
- Data Quality and Quality Management requirements;
- Data maintenance requirements;
- Method and format of provision of data, including the information exchange model;
- Clear requirements for originators to comply with Annex 15 requirements for advance notification of new or amended data;
- Accountabilities and responsibilities of data originators and AIS;
- Error reporting and rectification procedures;

Human Performance

1.9 **Conduct regular workshops and training courses for data originators.**

Ensure complete understanding of Aeronautical Information Management concepts including:

- National obligations under the Annexes to the Convention on Civil Aviation;
- National regulations supporting the Annexes;
- AIRAC cycle and Annex 15 requirements for advance notification of major changes;
- Definition of major changes; and

- Quality requirements for accuracy, resolution and integrity

DRAFT

P-16 – Training

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

The AIM Transition Step P-16 – *Training* is included in Phase 3 of the Roadmap for Transition from AIS to AIM. While current Asia/Pacific Regional focus is on Transition Phases 1 and 2, the Task Force has identified the need for AIS/AIM Training.

The new ICAO Doc 9919 – *AIM Training Development Manual*, currently undergoing pre-publication editorial review, will provide detailed guidance on training for personnel in the aeronautical information data chain.

Regional guidance for AIS training is included in the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*

Annex 15 – Aeronautical Information Services

1.1 Annex 15 States:

3.7.4 Within the context of the established quality management system, the competencies and the associated knowledge, skills and abilities required for each function shall be identified, and personnel assigned to perform those functions shall be appropriately trained. Processes shall be in place to ensure that personnel possess the competencies required to perform specific assigned functions. Appropriate records shall be maintained so that the qualifications of personnel can be confirmed. Initial and periodic assessments shall be established that require personnel to demonstrate the required competencies. Periodic assessments of personnel shall be used as a means to detect and correct shortfalls.

Regional Guidance Material

1.2 The Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region is available on the ICAO Asia/Pacific Regional Office website at:

<http://www.icao.int/APAC/Pages/edocs.aspx>,

1.3 The manual includes detailed guidance for the selection and training of AIS personnel. Doc 8126 references provide guidance for the training of AIS personnel, including

- Selection Principles;
- Selection Process;
- Training and Training Courses;
 - New Entrant Selection;
 - Core Training;

Training Assessment;
Task Specific OJT;
Performance Assessment; and
Career Development

- Sample Selection and Training Process;
- Sample Training Checklists;
- Sample Trainee Assessment Debrief Form;
- Sample Competency Grading Criteria;
- Sample Performance appraisal;
- Training guidelines for NOTAM handling and PIB

Checklist of Considerations

Regulatory Considerations

1.4 **Regulations must be established supporting the requirements for training for AIS personnel, specified in Annex 15 section 3.7.4.**

Processes and Procedures

1.5 **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.

1.6 **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).

1.7 **Training Development for Aeronautical Information Users**

Ensure that AIS user organizations or their representatives (e.g. IATA) are fully informed of changes in process, procedures and products, to permit modification of their training and procedural requirements and harmonization/interoperability of procedures and interfaces.

1.1 **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.

Human Performance

1.2 **Develop requirements and procedures for AIS initial and periodic competency assessment.**

Annex 1 to the Convention does not specify licensing requirements for AIS personnel. States may consider issuing a Certificate of Competency, and developing rules and procedures for initial and periodic competency assessment.

States may consider a requirement for English Language competency at Level 3 or higher.

1.3 **Training of Senior Management**

Senior Management personnel of all data originator, AIS and data aeronautical information production organizations should be trained in relevant aspects of AIS/AIM including

- State obligations under the Annexes to the Convention on Civil Aviation;
- State regulations supporting the Standards and Recommended Procedures (SARPS) of the Annexes;
- Quality Management Systems for Aeronautical Information;
- Requirements for advance notification of new or amended aeronautical information

1.4 **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 medium term re-training of existing staff will need to be undertaken, taking into account new skill requirements during recruitment and selection processes, to reflect the transition to an information management process rather than the current information product environment.

1.5 **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.

1.6 **Competency Considerations**

Behaviour Strengths			
<ul style="list-style-type: none"> • Adaptable • Analytical 	<ul style="list-style-type: none"> • Business sense • Fast learner 	<ul style="list-style-type: none"> • Innovator • Multi-Tasker 	<ul style="list-style-type: none"> • Resourceful • Service Orientated
Core Competencies			
<ul style="list-style-type: none"> ➤ Critical examining ➤ Information analysis ➤ Operational knowledge ➤ Professional expertise 		<ul style="list-style-type: none"> ➤ Judgement and decision making ➤ Reliability ➤ Accuracy ➤ Methodical 	

<ul style="list-style-type: none"> ➤ Adherence to procedure ➤ Safety culture ➤ ATC safety conscious ➤ Language skills 	<ul style="list-style-type: none"> ➤ Selective attention ➤ Quality focussed ➤ Customer focused
Business Competencies	
<p><i>Critical</i></p> <ul style="list-style-type: none"> ➤ Communication skills ➤ Conflict management ➤ Continual learning ➤ Planning and organisation/Time management ➤ Technical credibility ➤ Technology management 	<p><i>Secondary</i></p> <ul style="list-style-type: none"> ➤ Administration ➤ Business/operations awareness ➤ Cultural awareness ➤ Human resource management

Other Considerations

1.7 **Career Planning for AIS/AIM Staff:**

AIS/AIM should be established as a separate specialization, with structured career development and progression and other incentives.

AIS/AIM should not be used as a temporary an ongoing rotational deployment option for de-qualified personnel from other specializations for whom AIS/AIM is not an employment goal.

1.8 **Recruiting and retaining the right mix of skills required for AIS**

The AIS organizations should ensure that recruitment and retention objectives include an appropriate mix of personnel with the following skills, qualifications and/or experience:

- Aeronautical knowledge and experience (e.g. AIS, pilot, ATC, airport operator or airline ops);
- Information Technology qualifications and experience;
- Technical writing, document production and editing skills

1.9 **Enhance the motivation by achieving mastery of operational processes**

Ensure complete understanding of the purpose and context of operational processes to enhance the motivation to achieve the objectives:

- Quality assurance management of AIS static and dynamic data including robust

AATF/10
Appendix E to the Report

processes for cross checking;

- The purpose and context of setting numerical targets; and
- The critical importance of adhering to process, and of reporting and rectifying process gaps.

DRAFT

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.

Annex 15 – Aeronautical Information Services

1.1 Annex 15 specifies Standards and Recommended Practices (SARPS) for Electronic AIP:

4.6 Electronic AIP (eAIP)

4.6.1 Recommendation.— The AIP, AIP Amendment, AIP Supplement and AIC should also be published in a format that allows for displaying on a computer screen and printing on paper.

Note 1.— This composite electronic document is named “Electronic AIP” (eAIP) and may be based on a format that allows for digital data exchange.

Note 2.— Guidance material for the production and provision of the eAIP is contained in Doc 8126.

4.6.2 When provided, the information content of the eAIP and the structure of chapters, sections and sub-sections shall follow the content and structure of the paper AIP. The eAIP shall include files that allow for printing a paper AIP.

4.6.3 Recommendation.— When provided, the eAIP should be available on a physical distribution medium (CD, DVD, etc) and/or online on the Internet.

Note.— Guidance material on the use of the Internet is contained in Guidelines on the Use of the Public Internet for Aeronautical Applications (Doc 9855).

ICAO Doc 9750 - Global Air Navigation Plan

1.2 Aviation System Block Upgrades Block 0 includes:

B0-DATM – Service Improvement through Digital Aeronautical Information Management

Initial introduction of digital processing and management of information by the implementation of AIS/AIM making use of AIXM, moving to electronic AIP and better quality and availability of data.

Checklist of Considerations

1.3 **eAIP Content**

States should ensure the eAIP includes all components of the integrated aeronautical information package defined in Annex 15, and complies with the Annex requirements for content and structure.

1.4 **Accessibility**

The eAIP should be accessible on the public internet. ~~with provision for Internet Accessible~~

Open access to the eAIP should be permitted, either without the need for registration or, if registration is required, with access to eAIP being automatically and immediately available.

1.5 **Authorization**

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

1.6 **Reporting to ICAO Regional Office**

eAIP implementation and its internet hyperlink should be reported to the ICAO Asia/Pacific Regional Office.

On receipt of notification from 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. (Requirements for distribution to ICAO Headquarters remain unchanged)

1.7 ~~**Digital eAIP—Electronic AIP (eAIP)**~~

~~eAIP should stored be in digital form, with the displayed content of the eAIP extracted from a database.~~

eAIP should be generated from a digital database of aeronautical information.

~~eAIP content should be in a format that allows for display on computer screens and printing on paper.~~

1.8 ~~**Information Exchange**~~

~~AIXM 5 should be used for the exchange of digital aeronautical data.~~

1.9 **Preparation for Information Exchange**

Design and development of digital databases of aeronautical information used for the generation of eAIP should include consideration of:

- a) The development of an integrated aeronautical information database (Step P-06 of Phase 2 of the Roadmap for Transition from AIS to AIM); and
- b) Future requirements for digital data and information exchange under Phase 3 of the Roadmap, using AIXM.

Note: Annex 15 recommends that the AIP, AIP Amendment, AIP Supplement and AIC should also be published in a format that allows for displaying on a computer screen and printing on paper, and that when provided, the eAIP should be available on a physical distribution medium (CD, DVD, etc) and/or online on the Internet.

eAIP is information from the Integrated Aeronautical Information Package (IAIP) presented for display on a computer screen, and for printing. It may therefore be a simple rendering of information drawn from existing IAIP products, such as pdf files, or it may be information extracted from a digital database of aeronautical information.

Noting the need to prepare the Asia/Pacific Region for transition through Phases 2 and 3 of the Roadmap for Transition from AIS to AIM, the Asia/Pacific Region AIS – AIM Implementation Task Force considered that eAIP should be generated from a digital database.

AAITF TASK LIST

(Last updated April 2015)

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	Status	REMARKS
1.	Report on the outcome of the AIS-AIM Study Group	AAITF/10 AAITF/11	Australia/China/Japan/United States	Ongoing	
2.	Update Roadmap implementation plan status	AAITF/10 AAITF/11	All States	Ongoing	
3.	Review implementation of Amendment 37 to Annex 15	AAITF/10 AAITF/11	All States	Ongoing	
4.	Review draft Amendment 38-XX to Annex 15	AAITF/10 AAITF/11	All States, United States	Ongoing	Relating to the review of the final AIS-AIMSG-developed Amendment to Annex 15. Amd No. TBA
5.	Review draft PANS-AIM	AAITF/10 AAITF/11	All States	Ongoing	
6.	Review draft amendment to AIS Manual (Doc 8126)	AAITF/10 AAITF/11	All States	Ongoing	
7.	Review draft amendment to Aeronautical Chart Manual (Doc 8697)	AAITF/10 AAITF/11	All States	Ongoing	
8.	Review draft AIM Quality Manual	AAITF/10 AAITF/11	All States	Ongoing	
9.	Review draft AIM Training Manual	AAITF/10 AAITF/11	All States	Ongoing	
10.	Update AIS – AIM Transition Status	AAITF/10 AAITF/11	All States/Secretariat	Ongoing	
11.	States to advise AIS-AIMSG if they have any issues with sample charts in the Aeronautical Chart Manual	30 June 2013	All States/Secretariat	Closed	

AAITF/10
Appendix F

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	Status	REMARKS
	(Doc 8697) being printed in English language only				
12.	Explore what opportunities or resources may be available for seminars or workshops on AIS – AIM Transition Steps	AAITF/10 AAITF/11	Secretariat	Ongoing	Possible workshop late 2015 South Pacific. Draft Decision AAITF/10-4 refers.
13.	Develop an informal website for sharing knowledge, information and experience in AIS – AIM Transition implementation.	AAITF/10 AAITF/11	Mongolia/States	Ongoing	Decision AAITF/10-1 refers.
14.	Ensure States have 2 registered ICARD_5LNC_PLANNERS	AAITF/10 AAITF/11	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/10 AAITF/11	AAITF SWG/Secretariat	Ongoing	Draft Interim Guidance for 4 priority transition steps produced. Draft Conclusion AAITF/10-3 refers
9/1	Inform States newly added to the AIS Deficiencies List	11 July 2014	Secretariat	Completed	
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 AAITF/11	Secretariat	Open Ongoing	
9/3	Provide Mongolia discussion of List of NOTAMS to AIS-AIMSG for consideration	11 July 2014	Secretariat	Open Completed	AAITF/9 WP/10

AAITF/10
Appendix F

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	Status	REMARKS
9/4	States to provide Mongolia with point-of-contact for participation in open-source preflight information facility	AAITF/10	States	Open Closed	
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	Completed	
9/6	Forward proposed OPADD changes to EUROCONTROL for inclusion in their OPADD review.	11 July 2014	Japan/Secretariat	Open Completed	AAITF/9 Report Appendix F
9/6	Check details of ICARD 5LNC users and advise Regional Office of any discrepancies	1 August 2014 1 June 2015	States	Open	AAITF/9 Report Appendix I. AAITF WP/05 Attachment B.
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”	AAITF/10	Secretariat	Open	

AAITF/10
Appendix F

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	Status	REMARKS
	in the AIM Transition Roadmap				
10/1	States to provide contact details for their focal point for the AIM information sharing website (Mongolia)	1 June 2015	States/Mongolia/Secretariat	Open	
10/2	States to provide information on whether their eAIP is generated from digital database	1 June 2015	States	Open	Draft Conclusion AAITF/10-2
10/3	Provide input to the review of the Asia/Pacific Seamless ATM Plan regarding AIM Transition Phases 1 and 2, and AIXM.	1 June 2015	Secretariat	Open Completed	