

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



**REPORT OF THE SIXTH MEETING OF
ICAO AERONAUTICAL INFORMATION SERVICES–AERONAUTICAL
INFORMATION MANAGEMENT IMPLEMENTATION TASK FORCE
(AAITF/6)**

BANGKOK, THAILAND, 15 – 17 MARCH 2011

The views expressed in this report should be taken as those of the Task Force
and not of ICAO

Adopted by the Task Force
and published by ICAO Asia and Pacific Office

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AAITF/6
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PART I - HISTORY OF THE MEETING

1. Introduction

1.1 The Sixth Meeting of ICAO AIS-AIM Implementation Task Force (AAITF/6) was held at ICAO Asia and Pacific Office from 15 to 17 March 2011. The meeting was attended by 59 experts from Australia, Cambodia, China, Hong Kong China, Macao China, Fiji, India, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, Myanmar, Pakistan, Papua New Guinea, Philippines, Singapore, Sri Lanka, Thailand, United States, Viet Nam and IFALPA. The list of participants is attached at **Appendix A** to this Report.

2. Officer and Secretariat

2.1 Mr. Roy Tuomela, AIS Specialist, Airspace and Aerodrome Regulation, Civil Aviation Safety Authority, Australia, acted as the Chairman of the meeting. Mr. Kyotaro Harano, Regional Officer Air Traffic Management (ATM), ICAO Asia and Pacific Office, was the Secretary for the meeting, who was assisted by Mr. Len Wicks, Regional Officer ATM.

3. Language and Documentation

3.1 All discussions were conducted in English. Documentation was issued in English with a total of nine working papers and eleven information papers considered by the meeting. The list of working and information papers is attached at **Appendix B** to this Report.

4. Opening of the Meeting

4.1 On behalf of Mr. Mokhtar A. Awan, Regional Director, ICAO Asia and Pacific Office, Mr. Harano welcomed all the delegates to the meeting. He recalled the busy period of those years. AAITF/3 (June 2008, Singapore) was held over the weekend on Friday and Saturday immediately after the AIM Congress, and only two days later, the ATM/AIS/SAR Sub-group meeting was held in the next week. AAITF/4 (February 2009, Narita) was held in conjunction with the AIS Automation/electronic Terrain and Obstacle (eTOD) Seminar/Workshop for five days in total. AAITF/5 (June 2010, Beijing) was again held on Friday and Saturday immediately after the AIM Congress, and was only a week before the ATM/AIS/SAR Sub-group meeting in Singapore. He was grateful that the meeting arrangement had finally got back to normal.

4.2 Mr. Harano highlighted the importance of AIS in the context of the CNS/ATM systems. The ICAO Headquarters was envisaging the transition from legacy AIS to the provision and management of information that was data-centric, as opposed to product-centric, within a broader concept of AIM in order to satisfy the requirements arising from the ICAO Global ATM Operational Concept. Accordingly, from AAITF/4, an “A” (AIM) was added to the name of the Task Force to be AAITF, retaining the other “A” (AIS). This is in line with the global arrangement of the AIS-AIM Study Group (AIS-AIMSG) and Annex 15 - *Aeronautical Information Services*.

4.3 Mr. Tuomela expressed that it was an honour to assume the role of the Chairman of the meeting. He welcomed all the delegates to AAITF/6. He thanked Mr. Harano for providing the secretariat services for the Task Force and advised the meeting that this would be Mr. Harano's last Task Force meeting as he would return to Japan.

4.4 Mr. Tuomela paused before starting the meeting to remember the catastrophic events of Friday, 11 March 2011 when the earthquake and tsunamis hit Japan. This resulted in a tragic loss of life and a scale of damage that was hard to imagine. Deepest sympathy and condolences of the meeting were expressed to the people of Japan. As proposed by Mr. Tuomela, the meeting observed one minute's silence.

PART II - REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Agenda

1.1 The Secretariat informed the meeting that Mr. Peter Hobson, Chairman of the Task Force, was not able to attend the meeting. The meeting unanimously elected Mr. Roy Tuomela, AIS Specialist, Airspace and Aerodrome Regulation, Civil Aviation Safety Authority, Australia, as the Chairman of the meeting.

1.2 The Secretariat proposed agenda as follows, which was subsequently agreed and adopted by the meeting:

Agenda Item 1: Adoption of Agenda

Agenda Item 2: Review of AAITF/5

Agenda Item 3: Review of AAITF Terms of Reference

Agenda Item 4: Review of APANPIRG/21

Agenda Item 5: Review of Recent ICAO Developments and Deliberations in Regard to the Work of the Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG)

Agenda Item 6: Review of Air Navigation Deficiencies in the AIS Field and Proposed Action

Agenda Item 7: Latest Developments in AIS Fields

Agenda Item 8: Any Other Business

Agenda Item 9: Review of the Task List

Agenda Item 10: Date and Venue for the Next meeting.

Agenda Item 2: Review of AAITF/5

2.1 The meeting reviewed the outcomes of the fifth meeting (AAITF/5, June 2010). A full report is available at the ICAO web site: <http://www.icao.or.th/Meetings/2010/aaitf5/index.html>. The meeting recalled particularly two Action item as below in the report of the second meeting of AIS-AIMSG (AIS-AIMSG/2, November 2009):

Report on AIS-AIMSG/2

Action 2/7: Changes to Amendment No. 2 to Doc 8126

2.2 The changes focused on AIRAC late postponement; harmonization with the *Operating Procedures for AIS Dynamic Data (OPADD) 3.0*; guidance on AIRAC adherence; update of NOTAM Selection Criteria; Annex 15 Amendments 34, 35 and 36 consequential changes, etc. The group also noted that one of the current difficulties of the NOTAM format was that it allowed for flight level (FL) to be used in item Q) and another unit of measurement to be used in Items F) and G).

Also, the addition of information on low visibility procedure in the section AD 2.22 was questioned as the same information was published on a chart. It was agreed that the *Aeronautical Information Services Manual* (Doc 8126) should align with the provisions in Annex 15 and the Secretary take into account comments provided during AIS-AIMSG/2 in relation to Amendment No. 2 to the manual.

Action 2/23: eTOD Guidance Material

2.3 The group was informed that European Organisation for the Safety of Air Navigation (EUROCONTROL) was developing electronic terrain and obstacle data (eTOD) guidance material which would be made available to ICAO in the second half of 2010. (*Note: the draft is now out for comments of AIS-AIMSG and the material will be available by the end of 2011.*)

Review of AIS-AIMSG/3

2.4 Further, the meeting would review the outcomes of the subsequent AIS-AIMSG/3 (November 2010, Montreal) under Agenda Item 5.

Agenda Item 3: Review of AAITF Terms of Reference

3.1 The meeting was informed that Task Force Terms of Reference (TOR) was adopted by the 14th Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/14, August 2003). The TOR was recently amended by the 20th Meeting of the ATM/AIS/SAR Sub-group (ATM/AIS/SAR/SG/20, June 2010).

3.2 The meeting agreed to amend the TOR c) to read “assist States to implement Quality Management Systems for aeronautical information in an expeditious manner” to reflect the changes introduced in Amendment 36 to Annex 15, as in **Appendix C** to this Report. The Secretariat advised the meeting that the amendment should be proposed to ATM/AIS/SAR/SG/21 in June 2011 for the adoption by the Sub-group.

Agenda Item 4: Review of APANPIRG/21

4.1 The meeting reviewed the outcomes of APANPIRG/21 (September 2010, Bangkok) which was held three months after AAITF/5. The review by the meeting was particularly focused on the Performance Framework Form (PFF). The meeting agreed that the PFF be monitored along with the development of AIS-AIMSG discussion.

Agenda Item 5: Review of Recent ICAO Developments and Deliberations in Regard to the Work of the Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG)

Evolution towards AIM

5.1 Before the report by Japan on AIS-AIMSG/3, the Secretariat drew the attention of the meeting to the need for a global strategy to migrate to AIM in a manner that will ensure the availability of aeronautical information to any ATM user in a globally interoperable and fully digital environment. The meeting was apprized of the progress made by ICAO in the transition towards AIM by addressing the recommendations resulting from the 2006 Global AIS Congress, and through amendments to Annexes 4 – *Aeronautical Charts* and 15 that are designed to progress the global framework required for the implementation of AIM.

5.2 The meeting noted that ICAO Council adopted the amendments to Annexes 4 and 15 that conform with the *Roadmap for the Transition from AIS to AIM*, and contribute to a basis for AIM through further provisions for quality management systems (QMS); enabling clauses for the use of digital data exchange; revised provisions related to the automated pre-flight briefing; an improved NOTAM format; amendment to strengthen AIRAC adherence; and new provisions for the electronic aeronautical information publication (e-AIP). The meeting, noting the global developments in the field of AIM, confirmed the need to take these developments into account in defining the regional work programme.

Summary Discussion of AIS-AIMSG/3

5.3 Japan presented IP/3 to inform the meeting of the outcomes of AIS-AIMSG/3. The full Summary of Discussions and supporting study notes (SNs), information papers (IPs) are under the AIS-AIMSG web page for meetings: <http://www2.icao.int/en/ais-aimsg/Lists/Meetings/AllItems.aspx>.

5.4 The full copy of IP/3 submitted by Japan is available in **Appendix D** to this Report for easy reference by the States which were not the members of AIS-AIMSG. The Secretariat invited States to make full use of IP/3 to develop their national plans towards AIM.

Including AIM in Annex 15

5.4.1 In accordance with AIS-AIMSG Action agreed 2/1, the group considered 20 definitions for Annex 15, Amendment 37.

Amendments 37 and 38 Development

5.4.2 The group considered the draft Annex 15, Amendments 37 and 38 documents. With regard to draft Annex 15, Amendment 37, the following was agreed by the group:

- a) to add potential revisions relating to eTOD and aerodrome mapping data bases (AMDB);
- b) to prioritise development of Standard and Recommended Practices (SARPS); and
- c) with the need for mature provisions linked to the AIS to AIM Roadmap.

5.4.3 With regard to draft Annex 15, Amendment 38, the following needs were agreed:

- a) a draft for presentation to the planned AIS-AIM Divisional Meeting in 2014;
- b) a substantive chapter on digital services; and
- c) to incorporate a requirement to enable digital data exchange (AICM/AIXM).

Digital AIM Services Guidance Material

5.4.4 The group reviewed two proposed outlines for the future major restructure of AIS Manual. One was based on draft Amendment 37 and the other on draft Amendment 38.

5.4.5 The group considered the following alternatives for the new AIS Manual and possibly a new digital *Aim Services Manual*. The AIS Manual could be divided into two volumes with the content of Volume 2 to be primarily about AIP content and preparation:

- a) Annex 15, Appendix 1;
- b) AIS Manual, Chapter 5 and Appendix;
- c) AIS Manual, Chapter 10; and
- d) AIS Manual, the Specimen AIP.

Note. — *Elements of the AIS Manual may also become part of the Procedures for Air Navigation Services – Aeronautical Information Management (PANS-AIM).*

5.4.6 The group noted that the alternative was to have a separate Digital AIM Services document that would include the chapters, sections or appendices that concern performance driven processes, information management, digital data services, guidance on use of the Internet and web services, guidance on data link (if required), eTOD, safety management, security management, and possibly contents from an updated Chapter 9 - Organization of an automated aeronautical information services system from the AIS Manual. The group agreed that there was no priority need for two volumes of the AIS Manual and the document should be kept together for the time being.

Possible Development of a PANS-AIM

5.4.7 The group agreed that the current establishment of AIS- and AIM-related provisions, and guidance in Annex 15 and the AIS Manual did not allow for the promulgation of specifications that were detailed and prescriptive in nature, and intended for wide spread global adoption. Moreover, the group was of the opinion that the adoption of a PANS-AIM document would give greater visibility to the global shift from traditional AIS to AIM. After much discussion, the group was of the opinion that the PANS-AIM would provide the following benefits:

- a) provide increased application of the material in the AIS Manual related to integrated aeronautical information package (IAIP) where increased harmonisation is desirable, and considered of particular importance in fostering interoperability and the transition to AIM;
- b) reduce the provisions in Annex 15 by transferring material that is of a technical or procedural nature;
- c) increased implementation of standard procedures would result from the need to publish differences from PANS (in AIP);
- d) full State review in update process; and
- e) provide a means to promulgate AIM-related provisions that may not be suitable for Annex 15 and raise the global awareness of AIM.

5.4.8 The group concluded that there was support for the development of a PANS-AIM subject to a review of the initial draft to be provided by the Secretariat. The group asked that the initial draft of the document structure have particular emphasis on the content elements intended to be incorporated. Specifically the additional elements which detail AIM processes and procedures should be identified.

Considerations of the MET Component

5.4.9 The group noted that the AIS-AIMSG/3-SN/9 - Eyjafjallajökull Volcanic Ash Event - Lessons Learned and Proposals for New Guidance included considerations of new guidance in ICAO documents on AIP related to volcanic ash. The group discussed the limitations of including volcanic ash data in the “E” field of NOTAM, the variations in how volcanic ash information is disseminated, the development of NOTAM template guidance, the global use of ASHTAM vs. NOTAM, and potential multi-FIR NOTAM. From information provided during discussion, it was concluded that on a global basis there appears to be no widespread usage of ASHTAM and NOTAM is the preferred format for aeronautical information dissemination related to volcanic ash.

Action agreed 3/9 — Aeronautical information dissemination related to volcanic ash

- a) *that the ad-hoc group develop, for Doc 8126, NOTAM templates related to the operational impact and limited access of airspace and routes affected by the volcanic ash and submit draft proposals to the AIS-AIMSG/4;*
- b) *that the member provide the AIS-AIMSG/4 with a survey of users views on the use of ASHTAM vs NOTAM;*
- c) *that the member provide the Secretariat statistics on global ASHTAM promulgation;*

Action agreed 3/10 — Aeronautical information dissemination related to volcanic ash

- a) *the Secretariat contact the States issuing ASHTAM seeking their views as to the need for ASHTAM; and*
- b) *that the Secretariat inform the International Volcanic Ash Task Force (IVATF) on AIS-AIMSG activities in this regard.*

Integrated Briefing

5.4.10 The group noted that in many regions of the world, pre-flight activities for the briefing of AIS/meteorology and flight planning activities took place over multiple systems and occurred in different physical locations. The item for consideration by the group was how this could be consolidated into one complete system giving access to required information and allowing the access to flight planning, and whether this needed to be described in a new ICAO Annex or other document. It was considered by the group that while there might be related guidance, it should be investigated as to whether the current provisions need to be updated and/or expanded.

AIM Operational Concept

5.4.11 The group was presented with a briefing and presentation by the Secretary concerning the events and processes leading up to the current work on AIM. The presentation further outlined the role of the ATM Operational Concept, and how it provided the stimulus and direction for a number of developments, including the focus of the current work of the ATM Requirements and Performance Panel (ATMRPP), the development of the flight and flow information for a collaborative environment (FF-ICE) concept. It was further explained to the group that since the FF-ICE concept dealt with a complimentary ATM information domain, it was an appropriate model to use to envision what an AIM operational concept could achieve and how it could be used to outline the acquisition, validation,

collection, aggregation, and delivery of aeronautical information in a future system developed to meet the vision of the ATM Operational Concept. The presentation concluded with a proposal that the group consider developing the AIM Operational Concept as an opening adjunct a revised and updated AIS to AIM Roadmap document which could be presented to be published as an ICAO document.

5.4.12 The group agreed that the development of the AIM Operational Concept and revised Roadmap was worthwhile and necessary. The group was further of the opinion that such a concept should, among other elements, include the link to SWIM, a clear link between the Roadmap and Annex 15 amendments, a clarification of some of the Roadmap projects and a review of the associated project dates.

Action agreed 3/16 — AIM Operational Concept and Roadmap Development

That an ad-hoc group develop and propose a draft to the group.

Guidance Material on Digital Data Exchange

5.4.13 The group agreed that the proposal on the SNOWTAM format should be coordinated with the Aerodrome and Ground Aids (AGA) Section in ICAO for consideration by the Aerodromes Panel and the Runway Friction Task Force in the hope that it could be reviewed and considered in conjunction with other initiatives.

Data Processes and Procedures

5.4.14 The group was presented with AIS-AIMSG/3-SN/11 which outlined the progress made by EUROCONTROL and the United States Federal Aviation Administration (FAA) in the development of a technical specification for Digital NOTAM using Aeronautical Information Exchange Model (AIXM) version 5.1. The group concluded that it was premature at this time to consider the specifications for inclusion in Annex 15 but the concept of Digital NOTAM was supported and some elements of the specification should be considered for inclusion in Amendment 38 of Annex 15 or another suitable document.

5.4.15 The group noted that the FAA and EUROCONTROL would continue to develop the specification and validate it through trials and pioneer implementations with initial operational availability from 2012. The group agreed that comments on the specification and its application should be sent through the AIXM Forum.

AIXM Governance

5.4.16 The group was presented with a proposal for a draft AIXM change management process proposal developed by EUROCONTROL and the FAA in consultation with the AIXM stakeholders. The group expressed support for the proposal and expressed its view that a change management process was urgently needed in view of the increasingly wide adoption of AIXM.

Development of Provisions for Annexes 4, 14 and 15 Related to Aerodrome Mapping

5.4.17 The group reviewed the draft proposed amendments, discussed the issue of the applicability of fine versus medium data requirements, and noted the next steps for review by the AIS-AIMSG and coordination with the Aerodromes Panel Aerodromes Operations and Services Working Group to allow a proposal to be finalised for preliminary review by the Air Navigation Commission in the first quarter of 2012.

Action agreed 3/21 — Development of provisions for aerodrome mapping

- a) *that the group provide comment on the proposal by 15 January 2011;*
- b) *that the ad-hoc group member review and harmonise the terminology and data accuracy/resolutions between the Annex 14 and 15 data quality appendices while taking into account EUROCAE/RTCA Committee WG44/SC217 guidance material, and relate fine data provisions to low visibility;*
- c) *that the assigned member*
 - 1. *check the appropriateness of the notes in the Annex 4 proposal and clarify the term “aerodromes regularly used by international civil aviation”;*
and
 - 2. *send the revised proposal for comments by the group material by 15 February 2011.*

World Geodetic System — 1984 (WGS-84) Manual (Doc9674)

5.4.18 The Secretariat informed that in accordance with Action agreed 2/15, the proposed text related to the use of coordinates transformation for inclusion in Amendment No. 1 to the WGS-84 Manual had been reviewed and was incorporated into a draft amendment of the Manual. The document was in the editorial queue pending the development of guidance material on height reference systems in accordance with Action agreed 2/14.

Data Integrity Requirements

5.4.19 The group reviewed the work of the Ad-hoc Group formed during AIS-AIMSG/2 to clarify the means for measuring the integrity requirements stated in the SARPS and the need for guidance material. The group observed that the current integrity values could not be measured and there was debate as to the use of the values. It was surmised that the values could represent targets to be achieved or outline the need for defined data handling processes to be in place. Based on the observation that the integrity values could not be measured, thus there being no method of demonstrating compliance the group formed the position that the only use for the values was to categorise data into groups requiring specific requirements for processes involved with data handling.

5.4.20 The group agreed that in the development of Amendment 37, the numerical values should be removed from SARPS and consequential changes to other Annexes identified. The integrity classifications would remain and introductory text explaining the relationship to the numerical values and the use of integrity classifications would be prepared by the Secretariat. The group understood that these actions would need to be coordinated within the Secretariat and that the views of other groups may need to be sought prior to completing this action.

Inclusion in the AIS Quality Manual of QMS/SMS Models

5.4.21 The group considered AIS-AIMSG/3-SN/14 which was developed in response to Actions 2/17 and 2/18 from AIS-AIMSG/2 on the inclusion of safety management system (SMS) in the quality manual. The group was also informed on the intention of ICAO to form a new Annex to deal with safety management.

5.4.22 While it was understood that SMS focuses on the safety, human and organizational aspects of an organization, quality management system (QMS) focuses on the products/services of an organization and predominately takes into account the satisfaction of the customer/end user. The group expressed its difficulty understanding SMS as a process that would be applied in full and uniquely on an AIS unit (as opposed to an organization wide implementation). With this in mind, the group considered it premature to develop SMS-related material for inclusion in Amendment 37 to Annex 15.

Electronic Terrain and Obstacle Data (eTOD)

5.4.23 The group considered AIS-AIMSG/3-SN/12 - Terrain and obstacle data (TOD), which provided an update on the progress of TOD implementation in Europe and the activities of EUROCONTROL in supporting European States. A EUROCONTROL TOD Working Group had identified a number of areas of uncertainty with Amendment 36 and developed a draft TOD Manual which attempts to provide some clarification to these, to assist States in implementing TOD in a harmonized manner. The group was informed that a summary of issues identified by the TOD Working Group were:

- a) The SARPS currently place the responsibility for determining which obstacles are hazards to air navigation on the State as the provider of the data, rather than on the users of the data. This is considered to have significant liability issues as it is only the end user that understands the context in which they will use the data and the impact of obstacles on their operations;
- b) The SARPS use the term “regularly used by international civil aviation” however, no definitive definition of this term is provided by ICAO. It is believed that a common definition would assist as this same phrase is used in several ICAO Annexes;
- c) It is unclear what terrain is to be surveyed to the Area 2 numerical requirements. The terrain requirements described in paragraph 10.1.5 refer to the obstacle data collection surfaces, whilst Figure A8-1 describes a different requirement. The Area 2 terrain data collected in accordance with paragraph 10.1.5 does not appear to serve any operational purpose;
- d) There is uncertainty about the surfaces to be applied for obstacle data collection in the Area 2;
- e) The Area 3 results in islands of data being collected which is of little operational use; and
- f) It is believed that Area 2 data is insufficient, in most cases, to meet the obstacle data requirements for the Area 4 and the note will result in a State not preparing the Area 4 obstacle datasets needed to replace the Precision Approach Terrain Chart.

Aim Staff Training Guidance

5.4.24 The group noted that the scope of the training manual would reflect the current provisions of Annex 15. There was concern expressed that the AIS Training Manual would be historical and not be focused on the needs connected with the move from AIS to AIM. It was considered by the group that regardless of the title, AIM-related components would be incorporated insofar as they related to meeting the provisions in the Annexes and guidance documents. It was

further observed that the move to a competency-based framework itself was evolutionary and fully supported the transition to AIM by identifying the required competencies that are distinct from the traditional provision of AIS.

Action agreed 3/31 — AIS Training Manual development

That the ad hoc group will develop the manual further and report back to the Study Group at the next meeting.

5.4.25 The meeting thanked Japan for the information and requested to continue to update the Task Force.

Presentations of Amendments 37 and 38 to Annex 15

5.4.26 The United States provided in more detail the draft Amendments 37 and 38 of Annex 15. The provided draft amendments are available at the Regional Office website: http://www.bangkok.icao.int:8080/cns/meeting.do?method=MeetingDetail&meeting_id=51. States were requested to review the draft amendments and send comment, if any, to the United States delegate (email address can be found in Appendix A - List of Participants).

5.4.27 The meeting was advised that AIS-AIMSG now meets twice a year along with the additional meetings of Ad-hoc Group. Asia and Pacific States were advised that if they wish to nominate to become a member of the AIS-AIMSG, they should contact Mr. Paul Bosman, Chairman of the SG.

5.4.28 In seeking a definition of the aerodromes ‘regularly used by international civil aviation’, the Secretary advised the meeting that a basic list of ‘aerodromes required to serve international civil aviation operations’ is given in the Appendix to Part III – Aerodrome Operational Planning (AOP) of the Basic Air Navigation Plan (BANP, Doc 9673). However, the Secretary agreed that a common definition of the ‘regularly used by international civil aviation’ would assist as the same phrase is used in several ICAO Annexes.

5.4.29 To a query from the Secretary in regard to the hierarchy of the AIM Operational Concept and the AIS to AIM Roadmap document, the United States informed that the Operational Concept would be the primary document to which the Roadmap would be secondary.

Agenda Item 6: Review of Air Navigation Deficiencies in the AIS Field & Proposed Action

6.1 The meeting reviewed the List of Deficiencies in the AIS field updated by APANPIRG/21 and noted that China had been implementing WGS-84 in a phased manner. China reported that the last FIR (Kunming FIR) would complete WGS-84 implementation by the end of 2011. Papua New Guinea reported that a project is going on to introduce the AIP format compliant with Annex 15. The updated List of Deficiencies in the AIS field is attached at **Appendix E** to this Report.

Agenda Item 7: Latest Developments in AIS Fields**Review of the Asia and Pacific Regional Air Navigation Plan (Doc 9673)**

7.1 Japan advised the meeting that the *Asia and Pacific Regions Air Navigation Plan* (ANP, Doc 9673) details requirements of facilities, services and procedures for international air navigation within the Asia and Pacific regions. The ANP consists of two documents; the *Basic ANP* (BANP) and the *Facilities and Services Implementation Document* (FASID). Volume I - BANP, Part VIII “Aeronautical Information Services and Aeronautical Charts (AIS/MAP)” contains basic planning principles, operational requirements and planning criteria, and constitutes the stable guidance material related to AIS/MAP. Volume II - FASID, Part VIII sets forth the facilities, services and procedures required for international air navigation.

7.2 The Asia and Pacific ANP contains materials necessary for AIS, however, some FASID tables have not been developed yet. The meeting noted that the FASID is a planning document to guide States for the facilities and services required for international air services.

7.3 Taking into consideration the latest developments related to the transition from AIS to AIM, it appeared that the European (EUR) Region ANP was being reviewed to develop necessary planning material related to AIM for inclusion in the EUR BANP and FASID, and an amendment proposal to both the BANP and the FASID would be delivered in 2011. The meeting was advised that ANP would be a planning document for States to plan for AIM. A discussion was held to consider possible amendment of the Asia and Pacific ANP.

7.4 The meeting decided that reviewing the Asia and Pacific ANP was not a matter of urgency and that the EUR ANP review should be monitored in terms of applicability for the Asia and Pacific ANP. Japan, however, was requested to undertake to monitor and take an action, if necessary, at ATM/AIS/SAR/SG/21 in June or APANPIRG/22 in September 2011.

System of AD Raw Data Based on AICM/AIXM 4.5

7.5 China informed the meeting that there were observed deficiencies particularly in the submission, assessment and maintenance of domestic aerodrome raw data:

- a) There are differences in the format of raw data finally submitted from each airport;
- b) Currently data checking can be only performed on a manual basis; and
- c) The raw data were not processed properly and the saved results in all the data were hardly reutilized.

Deployment of the System Installation

7.6 XML files were employed by the airport level (third level) users as a data source, and databases were adopted to store the raw data from local airports by users of the regional bureau level (second level). Correspondingly, the AIS Centre level (first level) users gathered all the raw data collected from aerodromes nationwide and then stored them into databases for further comprehensive query and application.

The Major Functions of the System

Raw Data Edit

7.7 Diverse editing functions for airport raw data were provided, including the verification of data format and the highlight prompt for modified information.

Raw Data Typesetting

7.8 The system served the function of setting effective date which can automatically calculate the effective date and publication date in accordance with AIRAC, and automatically set date information for each page.

Raw Data Finalization

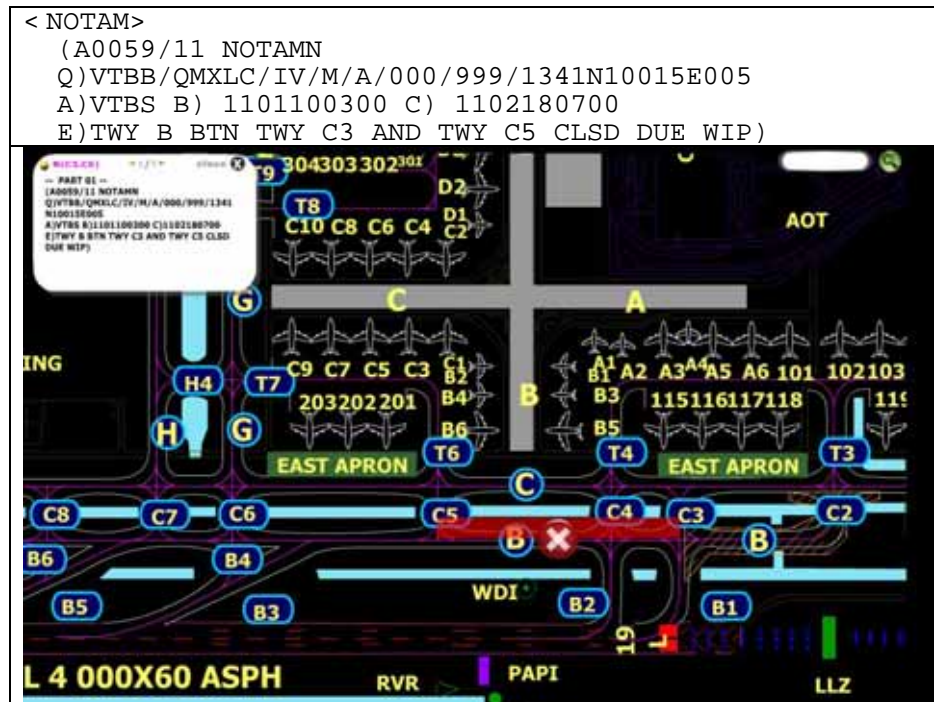
7.9 This function finalized the data that have already been processed in terms of editing as well as typesetting and also generated the latest version number that ensured the accuracy for the version information, and provision of the basic data source for data submission and update.

Development of Graphic NOTAM in Thailand

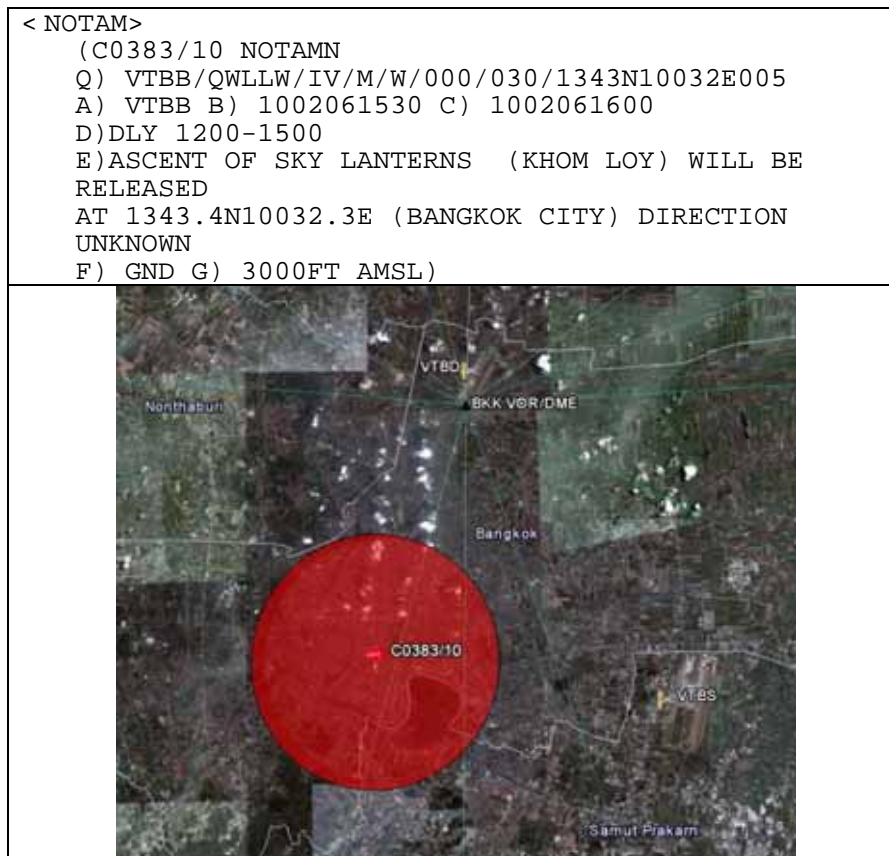
7.10 Thailand informed the meeting that in 2009, a study on the graphical visualization of the status of the taxiway, runway and aircraft stand from NOTAM was internally conducted within AEROTHAI, with the goal of developing a prototype system for graphically displaying NOTAMs applicable for the Bangkok FIR and Suvarnabhumi International Airport (VTBS).

System Architecture and Visualization

7.11 An aerodrome graphic NOTAM display consisted of both graphic plot and corresponding text. An example, among others, is shown as follows:



7.12 For displaying graphic NOTAMs applicable for the Bangkok FIR, an example is shown as follows:



WebEx Conference with Eurocontrol on the AIXM 5.1 and Digital NOTAM

7.13 The meeting had a conference call with Mr. Eduard Porosnicu, EUROCONTROL, through the WebEx on the AIXM 5.1 and digital NOTAM. The meeting was informed of the current development going on in Europe and learned of the following topics:

- AIXM 5.1 objectives and scope;
- differences from AIXM 4.5;
- digital NOTAM;
- current Status;
- implementation lesson learned till date; and
- skills/resources required.

7.14 The meeting thanked Mr. Porosnicu for the opportunity and contribution.

Agenda Item 8: Any Other Business

New Provision to Annex 11

8.1 Mongolia informed the meeting that they were encountering a problem in terms of compliance with Appendix 2 to Annex 11 – *Air Traffic Services* that ‘Coded designators shall not be duplicated within 1 100 km (600 NM) of the location of the radio navigation aid concerned...’ (Paragraph 2.2.2) due to the large territory and single FIR. Ulaanbaatar NDB with the ‘IM’ identification and Khovd NDB with the same ‘IM’ identification were 1124 km apart, which met the requirements of Annex 11. However, the database of AIS Mongolia automated system placed restrictions on storing different radio navigation aids with the same identification in single FIR, which made it difficult for operators to prepare NOTAMs, flight plans and ATS messages associated with the NDBs.

8.2 Even though Mongolia could make changes to their systems, the fact that operators, air traffic controllers and pilots could confuse them with each other apparently increased the risk of error. Nowadays, the transition to digital AIM was inevitable, and States introducing digital database and automated system could have the same problem, and Mongolia suggested a new provision to Annex 11.

8.3 The Secretary advised that Annex 11 only states that the coded designator shall not be duplicated at least within 1100 km and if a State see any problem, this requirement does not preclude the State from taking other suitable arrangement. Further, the secretariat drew to the attention of Mongolia that Annex 10 – *Aeronautical Telecommunication*, Volume I – *Radio Navigation Aids* stipulates that each NDB shall be individually identified by a two- or three-letter International Morse Code group (Paragraph 3.4.5.1). When this applied, the State shall individually identify their NDBs with different radio identifications, thus having different coded designators for significant points marked by a radio navigation aid.

Philippines’ AIS Implementation Roadmap to AIM

8.4 Philippines informed the meeting that the Philippines AIS was evolving from the traditional product-centric process to an enlarged scope of data-centric AIM to meet users’ requirements of an accurate and timely distribution of quality data. The step was part of Philippine’s commitment to ICAO’s recommendation for the Transition of AIS to AIM.

Philippine AIS Roadmap to AIM:

8.5 The Philippines AIS had centered its strategies on four areas of the service for the transition to AIM. The strategies envision Philippines AIM “*as a service provider of digital, accurate and real-time aeronautical information, manned by multi-skilled personnel in a safe and quality assured environment*”.

Philippines AIS Automation Project (Migration to the EAD System)

8.6 In February 2009, the Civil Aviation Authority of the Philippines (CAAP) implemented the Philippines AIS Automation Project. On 11 March 2010, AIS had completed the Static Data Operations (SDO) and International NOTAM Operations migration.

Lessons Learned from the Migration:

8.7 During the migration, the Philippines AIS had discovered that some of the information/data in the Philippines AIP were not in conformance with ICAO SARPS, such as aerodrome data including threshold coordinates, declared distances, etc.

Benefits from the EAD Migration:

8.8 The EAD System was fully integrated with proven checking mechanisms in place. In addition to these features, EAD staff conducted manual quality checks on a quarterly basis on all EAD data. It was considered that the EAD system was in compliance with the standards. Philippine AIS was now using the Charting and AIP Applications for the production of charts and AIP, and both systems use SDO data for assured coherence and accurate information.

AIS-AIM – A CANSO Perspective

8.9 On behalf of CANSO, Australia briefly described the contribution of CANSO in supporting the aviation industry transition from AIS to AIM. The CANSO AIM Work Group (AIMWG) has a key objective to foster, promote and assist its members in the transition from AIS to AIM, and to assist and lead in the total business transformation that this involves. Links to CANSO AIMSG activities and communications were accessible at a CANSO site. The meeting noted that over the last couple of years, the AIMWG has been successful at advancing the following AIM outcomes:

- Establishing AIS to AIM as one of CANSO’s key strategic focus areas;
- Increasing CEO awareness and commitment to AIM;
- Establishing a common understanding of AIM by CANSO members;
- Influencing regulatory changes by shaping/coordinating industry input; and
- Developing business tools and guidance material to support AIM transition.

8.10 The Task Force was offered the opportunity to provide feedback to Jennifer.cogan@airservicesaustralia.com or peter.hobson@airservicesaustralia.com regarding any ideas and suggestions on how CANSO could assist Asia and Pacific State AISs with their AIS–AIM transition.

AIS-AIM in Indonesia

8.11 Indonesia informed the meeting that efforts had been made since 2004, by automating AIS system and programmes, and in line with the national roadmap by which their current two air navigation service providers (ANSPs) were being restructured into single ANSP, and some AIS functions would be delegated to the new ANSP. The current situation was:

- In 2008, AIP database was developed but had not yet fitted with chart data;
- In 2010, several AIS product were published through a website; and
- In December 2010, the backup system for NOTAM Office had been installed.

AIM Implementation Plan of Mongolia

8.12 Mongolia highlighted the following Roadmap steps in the AIM Implementation Plan of Mongolia as being in the process of implementation:

- *P-01 and P-02 – Data quality monitoring and data integrity monitoring (50% implemented respectively)*

Monitoring the quality and integrity of raw data had been a challenge.
- *P-03 – AIRAC adherence monitoring (80% implemented)*

Operationally significant changes were issued in accordance with AIRAC system.
- *P-06 – Integrated aeronautical information database (30% implemented)*

Aeronautical database of Mongolia was completed, but electronic terrain and obstacle database was only in the beginning stage.
- *P-07 – Unique identifiers*

Improvements would be made to comply with the requirements of newer exchange models such as AIXM 4.5.
- *P-09 – Aeronautical data exchange*

Necessary improvements would be made as later versions of AIXM were introduced.
- *P-10 – Communication networks (10% implemented)*

More data exchange bandwidth was required for the current network. Mongolia expected more ICAO documents in terms of network specifications.
- *P-12 – Aeronautical information briefing (50% implemented)*

The combination of graphical and textual information was not exploited well.
- *P-13 – Terrain and P-14 – Obstacles (10% implemented respectively)*

Mongolia planned to be ready for eTOD by 2015.
- *P-16 – Training*

A training program had been developed which reflected the competencies required by the Annex 4, 15 and automation systems, and all employees were trained according to this program.
- *P-18 – Agreements with data originators*

A Procedure for the Provision of Originated Data to the AIS had been developed and was expected to be approved by the Civil Aviation Authority of Mongolia.

Survey of the Current Status of AIM Implementation

8.13 Japan advised the meeting that it was unavoidable that there might be a large gap between States in the regions regarding approaches to AIM because of the size of organizations or budget, etc. However, it was important to share information of each State regarding AIM implementation and to consider how AAITF will provide further support in the regions. In view of this, it was suggested that AAITF should conduct a survey to gain a better understanding of the current status of AIM implementation of States. AAITF, in conjunction with Regional Office, had conducted a survey in relation to automation, quality systems, Aeronautical Data requirements and eTOD in the past.

8.14 As requirements or procedures were not fully clarified in some steps, the questionnaires did not cover all of the steps. However, the survey could be conducted in order for the result to be presented to the next APANPIRG meeting in September 2011 and the subsequent AAITF meeting. Accordingly, the meeting agreed with a need to conduct the survey in relation to AIM implementation in the Asia and Pacific region, examined the contents of the survey proposed by Japan and agreed as in **Appendix F** to this Report. The meeting also agreed that a table based on the three stages of the Roadmap implementation plan should be created and updated by States to give an overall indication of States' progress towards transitioning from AIS to AIM. **Appendix G** to this Report is the draft Roadmap implementation status table.

Questionnaire on Survey Inventory Related to WGS-84 Implementation

8.15 The meeting agreed that the implementation of WGS-84 should be expedited to facilitate the implementation of the Performance Based Navigation (PBN) within the region. The meeting further noted that a regional survey to review the status of implementation of WGS-84 throughout the region was suggested by the Secretary to that effect, as described in the following paragraphs.

8.16 However, considerable work still remained. Additionally, APANPIRG recognized that implementation was now most urgent, as availability of geographical coordinates in the commonly agreed WGS-84 reference system was a prerequisite for States to obtain the benefits of PBN, and was also an important step in preparing for the transition from AIS to AIM, for which the provision of digital geographic data of appropriate quality would be essential.

8.17 In case States had implemented WGS-84 in conformity with relevant ICAO SARPS over their territory, and published accordingly, it was considered that a simplified status report on WGS-84 would be sufficient. However, in case implementation of WGS-84 was still not fully completed, it was essential that appropriate information be provided by the State concerned through a detailed status report.

8.18 The meeting considered the way forward to facilitate the implementation of WGS-84, however, agreed that the separate WGS-84 implementation survey would not be needed at this time as being covered by the survey in "Survey of the Current Status of AIM Implementation".

Using New Technology for Provision of AIS

8.19 Mongolia informed the meeting that users could purchase and browse eAIPs from anywhere in the world by downloading this application. Mongolia believed that using tablets to provide eAIP and other AIS products including NOTAM, Pre-flight Information Bulletin (PIB), AIC and AIP Supplement, and meteorological information fully complied with ICAO requirement to replace the traditional product-centric provision of aeronautical information by a data-centric and systems-oriented solution.

AIS Organization and AIS Automation in Vietnam

AIS Organization in Viet Nam

8.20 Viet Nam informed the meeting that the AIS organizations of Viet Nam consisted of AIS Headquarters, AIP and MAP/CHART Division, International NOTAM Office (NOF) and aerodrome AIS units.

Viet Nam Aeronautical Information Service Centre (VNAIC)

8.21 Viet Nam Air Traffic Management Corporation (VATM) decided to establish the subordinate Viet Nam Aeronautical Information Service Centre (VNAIC), aiming at upgrading one of the vital services it is providing to aviation community. Officially VNAIC started its operation from 1 July 2009. The promulgated information was put under the regulatory control of Civil Aviation Administration of Viet Nam (CAAV).

Automated AIS System

8.22 The meeting noted that the Automated AIS system provided operational functions of AIP/MAP-CHART, NOTAM, Flight Plan (PLN), PIB, Aeronautical Meteorological (MET) Information Management, Search and Rescue (SAR) Information Management with the following functions:

- ❖ AIP Production/Publication Management;
- ❖ Charting/ Mapping and Aeronautical Chart Maintenance;
- ❖ NOTAM Database Management;
- ❖ Flights Management;
- ❖ PIB;
- ❖ MET Information Management;
- ❖ SAR Information Management; and
- ❖ Aeronautical Data Management.

Agenda Item 9: Review of the Task List

9.1 The meeting reviewed the Task List of the Task Force. The updated Task List is found as in **Appendix H** to this Report.

Agenda Item 10: Date and Venue for the Next Meeting

10.1 Given the number of papers and matters to be addressed, the meeting agreed that the next meeting should be four days long. The date (tentatively in March 2012) and venue would be announced in due course (normally two months before the meeting).

11. Closing of the Meeting

12.1 Mr. Harano thanked all the participants for the active participation to the meeting discussion. He thanked Mr. Tuomela for taking the role of the Chairman in spite of the short notice.

12.2 Mr. Tuomela thanked Mr. Harano for providing the secretariat for this meeting and Mr. Wicks for his assistance. On behalf of the meeting, he formally thanked Mr. Harano for all his years of service to the Task Force. The Task Force wished him good luck on his return to ATM in Japan.

12.3 Mr. Tuomela thanked to everyone for their attendance and contributing to a successful AAITF/6. He acknowledged the quality of the WPs, IPs and presentations as they demonstrate the region's commitment to AIM and show how the State's have embraced the transition from AIS to AIM. The progress made towards transition to AIM reflects well on the Region. Further, he mentioned that AIS-AIMSG was not a one way street and he encouraged Task Force members to grasp the opportunity to contribute to the development of SARPs, training and quality manuals and guidance materials through active participation in a review of all outcomes of the AIS-AIMSG.

12.4 The meeting adjourned on time at 11:30 on 17 March 2011.

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AAITF/6
Appendix A to the Report

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

WORKING PAPERS

NUMBER	AGENDA	WORKING PAPERS	PRESENTED BY
WP/1	1	Provisional Agenda	Secretariat
WP/2	9	Survey of the Current Status of AIM Implementation	Japan
WP/3	4, 6	Review of the Report of APANPIRG/21, and Follow-Up on Conclusions and Decisions Relevant to the AIS Field	Chairman
WP/4	9	Review of the Task List of AAITF	Secretariat
WP/5	6	Review of Doc 9673 (Asia and Pacific Region Air Navigation Plan)	Japan
WP/6	7	Evolution towards Aeronautical Information Management	Secretariat
WP/7	4	Questionnaire on Survey Inventory Related to WGS-84 Implementation	Secretariat
WP/8	8	New Provision to Annex 11	Mongolia
WP/9	9	Using new technology for provision of aeronautical information services	Mongolia

INFORMATION PAPERS

NUMBER	AGENDA	INFORMATION PAPERS	PRESENTED BY
IP/1	-	List of Working Papers (WPs) and Information Papers (IPs)	Secretariat
IP/2	8	Philippines AIS Implementation Roadmap to AIM	Philippines
IP/3	5	Summary of Discussion of the Third meeting of AIS-AIMSG (Montreal, Canada, 9 to 12 November 2010)	Japan
IP/4	8	AIS-AIM – A CANSO Perspective	CANSO
IP/5	3	Terms of Reference of AAITF	Secretariat
IP/6	2	Review of the Fifth Meeting of the AIS-AIM Implementation Task Force (AITF/5)	Secretariat
IP/7	8	Aeronautical Information Service – Aeronautical Information Management in Indonesia	Indonesia
IP/8	8	AIM Implementation Plan of Mongolia	Mongolia
IP/9	7	System of AD raw data, based on AICM/AIXM 4.5	China
IP/10	7	Development of Graphic NOTAM in Thailand	Thailand
IP/11	8	AIS Organization and AIS Automation in Viet Nam	Viet Nam

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Terms of Reference of the AIS-AIM Implementation Task Force (AAITF)

The objectives of the Task Force are to:

- a) study means of aeronautical data management by civil aviation authorities and/or ATS providers in other regions including the aeronautical information exchange model (AIXM) and the electronic AIP (eAIP), and consider the feasibility in making use of these methods/models in the Asia/Pacific Region;
- b) examine the means of aeronautical data exchange used in other regions and application in the Asia/Pacific Region;
- c) assist States to implement Quality Management Systems for aeronautical information in an expeditious manner;
- d) develop training material and conduct workshops on the Guidance Manual for AIS in the Asia/Pacific Region;
- e) develop guidance material for Static Data Procedures and the AIS Automation Plan;
- f) review and update the Guidance Manual taking into account amendments to ICAO SARPs, guidance material;
- g) monitor and review technical and operating developments in the AIS field especially in the area of automation and database management; and
- h) monitor the transition from AIS to AIM, and in particular monitor development of the replacement of Annexes 4 & 15 and guidance documents under development by ICAO.

To achieve the above objectives, the Task Force shall consider:

- a) results of the ICAO Aeronautical Information Services – Aeronautical Information Management Study Group (AIS-AIMSG);
- b) amendments to Annex 4, Annex 5, the AIS Manual (Doc 8126), and the Aeronautical Chart Manual (Doc 8697); and
- c) revisions to the EUROCONTROL *Operating Procedures for AIS Dynamic Data* (OPADD); and
- d) implementation of the regional performance framework performance objectives contained in the Performance Framework Form (PFF).

The Task Force will report to the ATM/AIS/SAR Sub-Group of APANPIRG

(Adopted by the 14th Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group, 2003, amended by the 20th Meeting of the ATM/AIS/SAR/SG, 2010, and proposed to be amended by the Sixth Meeting of the AIS-AIM Implementation Task Force)

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International Civil Aviation Organization

The Sixth Meeting of the Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/6)

Bangkok, Thailand 15 to 17 March 2011

Agenda Item 5: Review of Recent ICAO Developments and Deliberations in Regard of the Work of the Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG)

**Summary of Discussion of the Third meeting of AIS-AIMSG
(Montreal, Canada, 9 to 12 November 2010)**

(Presented by Japan)

SUMMARY

This paper briefs the summary of the discussion of the third meeting of AIS-AIMSG ,which was held at ICAO HQ in Montreal from 9 to 12 November 2010.

1 INTRODUCTION

1.1 The third meeting of the Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG) was held at the International Civil Aviation Organization (ICAO) Headquarters in Montréal, Canada, from 9 to 12 November 2010. The full Summary of Discussions and the supporting study notes (SNs), information papers (IPs) are under the AIS-AIMSG web page for meetings:

<http://www2.icao.int/en/ais-aimsg/Lists/Meetings/AllItems.aspx>

1.2 Twenty (20) participants attended the third meeting. There were nineteen (19) study notes and three (3) information papers issued for the meeting. Mr. Paul Bosman acted as Chairman of the meeting. The meeting was served by the Secretary of the AIS-AIMSG, Michael Hohm, TO/AINF, MET/AIM, of the Air Navigation Bureau(ANB) who was assisted by David Lewtas, C/AINF, MET/AIM.

2 SUMMARY OF DISCUSSIONS

2.1 INCLUDING AIM IN ANNEX 15

2.1.1 New definitions related to AIM

2.1.1.1 In accordance with AIS-AIMSG Action agreed 2/1, the meeting was presented with rational for the consideration of twenty (20) definitions for Annex15, Amendment 37 which the group reviewed and took action.

Action agreed 3/1 Inclusion in Annex 15 of new definition related to AIM

Twelve (12) proposed definitions were accepted and the others eight (8) definitions were either not accepted or required further development.

2.1.2 Amendments 37 and 38 development

2.1.2.1 The group considered the draft Annex 15, Amendment 37 and Amendment 38 documents. With regard to draft Annex 15 Amendment 37 the following was agreed:

- a) to add potential revisions relating to electronic terrain and obstacle data (eTOD) and aerodrome mapping data bases (AMDB);
- b) to prioritise development of SARPs; and
- c) the need for mature provisions linked to the AIS to AIM Roadmap.

2.1.2.2 With regard to draft Annex 15, Amendment 38 the following needs were agreed:

- a) the need for a mature draft for presentation to the planned AIS-AIM Divisional Meeting in 2014;
- b) to develop a substantive chapter on digital services that would be expected to expand in the future; and
- c) to incorporate a requirement to enable digital data exchange (AICM/AIXM).

Action agreed 3/2 — Amendments 37 and 38 development

- a) that the Secretariat as a priority, review the draft Amendments 37 and 38 material and provide comments back to the ad-hoc group; and
- b) that the Secretariat investigate the usage of a SharePoint site to facilitate collaborative development of the amendment material.

Action agreed 3/3 — Amendments 37 and 38 development

- a) that the ad-hoc group create a timeline incorporating all forthcoming major events and milestones for annex updates; and
- b) that the ad-hoc group produce an updated draft Amendment 37 for the next meeting.

2.1.3 DIGITAL AIM SERVICES GUIDANCE MATERIAL

2.1.3.1 The group considered AIS-AIMSG/3-SN/18 which addressed the Action agreed 2/5 b) —including AIM in Annex 15 for development of relevant guidance material concerning AIM digital data services.

2.1.3.2 The AIS-AIMSG/3 reviewed two proposed outlines for the future major restructure of *Aeronautical Information Services Manual* (Doc 8126). One was based on draft Amendment 37 and the other on draft Amendment 38.

2.1.3.3 The group also considered the following alternatives for the new Doc 8126 and possibly a new digital *Aim Services Manual*. Doc 8126 could be divided into two volumes with the content of Volume 2 to be primarily about AIP content and preparation:

- a) Annex 15, Appendix 1, Contents of Aeronautical Information Publication (AIP);
- b) Doc 8126, Chapter 5 — Aeronautical Information Publication (AIP), Appendix Explanatory notes on the Specimen AIP;
- c) Doc 8126, Chapter 10. Preparation of original copy, reproduction and distribution; and
- d) the Specimen AIP.

Note. — Elements of Doc 8126 may also become part of a PANS-AIM.

2.1.3.4 The alternative is to have a separate Digital AIM Services document that would include the chapters, sections or appendices that concern performance driven processes, information management, digital data services, guidance on use of the internet and web services; guidance on data

link (if required); electronic terrain and obstacle data; safety management; security management; and possibly contents from an updated Chapter 9. Organization of an automated aeronautical information services system from Doc 8126.

2.1.3.5 The group agreed that the need for two volumes of Doc 8126 was not considered a priority and that the document should be kept together for now.

Action agreed 3/6 —Guidance material

That the Secretariat provide feedback to the ad-hoc group by 1 February 2011 on the development of the proposed guidance material in AIS-AIMSG-SN/18.

2.2 POSSIBLE DEVELOPMENT OF A PANS-AIM

2.2.1 The group was informed by the Secretariat of the role of the PANS and their position and relevance in the hierarchy of ICAO documents. Specifically, it was conveyed to the group that the PANS for the most part comprise material:

- a) which may eventually become standards when it has achieved the maturity and stability necessary for adoption as such;
- b) considered too detailed for SARPs; and
- c) amplifying the basic principles contained in corresponding SARPs to assist in their application.

2.2.2 The group agreed that the current establishment of AIS and AIM related provisions and guidance in Annex 15 and Doc 8126 did not allow for the promulgation of specifications that were detailed and prescriptive in nature and intended for wide spread global adoption. Moreover, the group was of the opinion that the adoption of a PANS-AIM document would give greater visibility to the global shift from traditional AIS to AIM.

2.2.3 After much discussion, the group was of the opinion that a PANS-AIM would provide the following benefits:

- a) provide increased application of the material in Doc 8126 related to integrated aeronautical information package (IAIP) where increased harmonisation is desirable and considered of particular importance in fostering interoperability and the transition to AIM;
- b) reduce the provisions in Annex 15 by transferring material that is of a technical or procedural nature. This would allow an Annex 15 more focussed on performance requirements;
- c) increased implementation of standard procedures would result from the need to publish differences from PANS (in AIP);
- d) full State review in update process; and
- e) provide a means to promulgate AIM related provisions that may not be suitable for Annex 15 and raise the global awareness of AIM.

2.2.4 The group concluded that there was support for the development of a PANS-AIM subject to a review of the initial draft to be provided by the Secretariat. The group asked that the initial draft of the document structure have particular emphasis on the content elements intended to be incorporated. Specifically the additional elements which detail AIM processes and procedures should be identified.

Action agreed 3/7 — PANS-AIM Development draft

That the Secretariat provide an initial content outline and document draft to the group by 25 March 2011.

2.2.5 The group was informed that under the most optimistic scenario, a PANS-AIM document could not be made applicable earlier than 2015 with 2016 being the most likely target.

2.3 INFORMATION ON NEXTGEN AND SESAR

2.3.1 The group noted information regarding Information Management and System-wide Information Management (SWIM) in NEXTGEN and SESAR.

Action agreed 3/8 — Information on NextGen and SESAR

- a) that all group members are invited to present to the next AIS-AIMSG/4 the results of work on SWIM with an aeronautical information focus; and
- b) that the Secretariat determines the level of coordination with respect to SWIM needed within ICAO and report to AIS-AIMSG/4.

2.4 CONSIDERATION OF THE MET COMPONENT

2.4.1 The group reviewed AIS-AIMSG/3-SN/9 - Eyjafjallajökull Volcanic Ash Event -Lessons Learned and Proposals for new Guidance, which provided information on a post-analysis undertaken by EUROCONTROL to collect the experiences made by AIS organisations related to the Eyjafjallajökull eruption in April and May 2010. It included considerations of new guidance in ICAO documents on aeronautical information publication related to volcanic ash. The group discussed the limitations of including volcanic ash data in the “E field” of NOTAM, the variations in how volcanic ash information is disseminated and the development of NOTAM template guidance, the global use of ASHTAM vs NOTAM, and potential multi FIR NOTAM. From information provided during discussion it was concluded that on a global basis there appears to be no widespread usage of ASHTAM and NOTAM is the preferred format for aeronautical information dissemination related to volcanic ash.

Action agreed 3/9 — Aeronautical information dissemination related to volcanic ash

- a) that the ad-hoc group develop, for Doc 8126, NOTAM templates related to the operational impact and limited access of airspace and routes affected by the volcanic ash and submit draft proposals to the AIS-AIMSG/4;
- b) that the member provide the AIS-AIMSG/4 with a survey of users views on the use of ASHTAM vs NOTAM;
- c) that the member provide the Secretariat statistics on global ASHTAM promulgation;

Action agreed 3/10 — Aeronautical information dissemination related to volcanic ash

- a) the Secretariat contact the States issuing ASHTAM seeking their views as to the need for ASHTAM; and
- b) that the Secretariat inform the International Volcanic Ash Task Force (IVATF) on AIS-AIMSG activities in this regard.

2.5 AIS-MET DATA LINK SERVICES

2.5.1 It was noted that the next deliverables of the joint RTCA SC-206/EUROCAE WG-76 AIS and MET Data Link Committee are expected soon. The group noted that the earliest likely amendment to Annex 15 on this item would be for Amendment 38.

Action agreed 3/11 — Access to AIS and MET Data Link Committee documentation

That the member acting as liaison to the committee provide to the study group a reference to where the deliverables can be found once finalised.

2.6 INTEGRATED BRIEFING

2.6.1 The group was presented with AIS-AIMSG/3-SN/19 which was prepared in response and at the request of the AIS-AIMSG/1-SN/18 which calls for the development of Guidance Material on Integrated Briefing. The group noted that in many regions of the world, pre-flight activities for the briefing of AIS, NOTAM, MET and flight plan activities can take place over multiple systems and occur in different physical locations. The item for consideration by the group was how this could be consolidated into one complete system giving access to required information and allowing the access to flight planning and whether this needed to be described in a new ICAO Annex or other document.

2.6.2 It was observed by the group that many of the desired functions put forth in the paper were already available in some States but that there was no universal application of this functionality. Moreover, it was discussed whether this was an item for expanded SARPs or whether this was an issue of implementation to be covered in the planning and implementation regional groups (PIRGS) and through the identification of deficiencies. On the matter of sufficient guidance, it was noted that there are already related provisions in Annex 15 and the *Manual on Coordination between Air Traffic Services, Aeronautical Information Services and Aeronautical Meteorological Services* (Doc 9377) covers coordination of information between ATS, AIS, and MET.

2.6.3 It was considered by the group that while there may be related guidance, it should be investigated as to whether the current provisions need to be updated and/or expanded.

Action agreed 3/12 — Review of provisions related to Integrated Briefing

That an ad-hoc group and the Secretariat undertake to review Annex 15, and Docs 8126 and 9377 with a view to determine the level of provisions and guidance applicable to the provision of integrated briefings as envisioned in the study note and report back to the group whether existing provisions and guidance should be updated.

2.7 LEGAL AND INSTITUTIONAL ISSUES

2.7.1 AIS-AIMSG members were urged to provide their respective State's policy on legal and institutional issues to the ad-hoc group as only one had been received.

Action agreed 3/13 — Examples of State policies on legal and institutional issues

That members endeavour to acquire information on their respective State's policy on legal and institutional issues and provide this to the ad-hoc group rapporteur by 15 January 2011.

Action agreed 3/14 — Coordination with AEP-ANSEP

That the ad-hoc group consider developing a plan for coordination between the AIS-AIMSG and the AEP-ANSEP (Airport Economics Panel and Air Navigation Services Economics Panel) by 1 March 2011.

Action agreed 3/15 — Guidance material on legal and institutional issues

That the ad-hoc group prepare an amendment to the *Roadmap for the Transition from AIS to AIM* to incorporate guidance, in coordination with the CANSO AIM Working Group, on legal and institutional issues by 31 July 2011.

2.8 AIM OPERATIONAL CONCEPT

2.8.1 The group was presented with a briefing and presentation by the Secretary concerning the events and processes leading up to the current work on AIM. The presentation further outlined the role of the ATM Operational Concept and how it provided the stimulus and direction for a number of

developments, including the focus of the current work of the Air Traffic Management Requirements and Performance Panel (ATMRPP), the development of the flight and flow information for a collaborative environment (FF-ICE) concept. It was further explained to the group that since the FF-ICE concept dealt with a complimentary ATM information domain, it was an appropriate model to use to envision what an AIM operational concept could achieve and how it could be used to outline the acquisition, validation, collection, aggregation, and delivery of aeronautical information in a future system developed to meet the vision of the ATM Operational Concept. The presentation concluded with a proposal that the group consider developing an AIM Operational Concept as an opening adjunct a revised and updated AIS to AIM Roadmap document which could be presented to be published as an ICAO document.

2.8.2 The group agreed that the development of an operational concept and revised roadmap was worthwhile and necessary. The group was further of the opinion that such a concept should, among other elements, include the link to SWIM, a clear link between the roadmap and Annex 15 amendments, a clarification of some of the roadmap projects and a review of the associated project dates.

Action agreed 3/16 — AIM Operational Concept and Roadmap Development

That an ad-hoc group develop and propose a draft to the group.

2.9 GUIDANCE MATERIAL ON DIGITAL DATA EXCHANGE

2.9.1 The group considered AIS-AIMSG/3-SN/8 which presented a proposal for a change to SARPs and guidance material concerning the SNOWTAM format. The proposal resulted from European experience with a digital SNOWTAM trial with input from Stakeholders. The need for the proposal resulted from the observation that the guidance on the application of the SNOWTAM could be improved in the interests of greater harmonisation and improving the usability of the information.

2.9.2 The group was informed that the SNOWTAM format was also being reviewed by the Runway Friction Task Force and the Aerodromes Panel. As a consequence it was suggested that it would not be useful at this time to conduct a detailed review of the proposal within the group since similar provision may be under study by other groups.

2.9.3 It was noted that the Federal Aviation Administration (FAA) is currently looking at the issue reporting conditions and that this issue is currently being considered by the Take-Off and Landing Performance group of the Aviation Rule making Committee.

2.9.4 Accordingly, the group agreed that the proposal should be coordinated with the AGA Section in ICAO for consideration by the Aerodromes Panel and the Runway Friction Task Force in the hope that it could be reviewed and considered in conjunction with other initiatives.

Action agreed 3/17 — Coordination of Changes to SNOWTAM SARPs

That the Secretariat should:

- a) undertake to forward the proposal in AIS-AIMSG/3-SN/8 for consideration by the AGA Section and the Aerodromes Panel and Runway Friction Task Force; and
- b) report back to the group.

2.10 DATA PROCESSES AND PROCEDURES

2.10.1 The group was presented with AIS-AIMSG/3-SN/11 which outlined the progress made by the FAA and EUROCONTROL in the development of a technical specification for Digital NOTAM using AIXM version 5.1.

2.10.2 The group concluded that it was premature at this time to consider the specifications for inclusion in Annex 15 but that the concept of Digital NOTAM was supported and that some elements of the specification should be considered for inclusion in Amendment 38 of Annex 15 or another suitable document.

2.10.3 The group noted that the FAA and the European Organisation for the Safety of Air Navigation (EUROCONTROL) will continue to develop the specification and validate it through trials and pioneer implementations with initial operational availability from 2012. The group agreed that comments on the specification and its application should be sent through the AIXM Forum.

Action agreed 3/18 — Relationship of AIXM versions to Digital NOTAM

That the assigned member clarify the relationship of AIXM versions to Digital NOTAM requirements.

2.11 AIXM GOVERNANCE

2.11.1 The group was presented with AIS-AIMSG/3-SN/5 which outlined a proposal for a draft Aeronautical Information Exchange Model (AIXM) change management process proposal developed by the European Organisation for the Safety of Air Navigation (EUROCONTROL) and the Federal Aviation Administration (FAA) in consultation with the AIXM stakeholders.

2.11.2 The group expressed support for the proposal and expressed its view that a change management process was urgently needed in view of the increasingly wide adoption of AIXM.

2.11.3 Notwithstanding the support for a Configuration Control Board (CCB) expressed within the group, a number of issues were identified.

Action agreed 3/19 — ICAO consideration of AIXM CCB support

That the Secretariat address their role with respect to an AIXM CCB and how support to the establishment of a CCB may be expressed.

2.12 ELECTRONIC AIP (EAIP)

2.12.1 The Secretary noted that “the Sample eAIP” was in the review and editing process for inclusion in Amendment 3 to Doc 8126. The amendment is expected to be available in mid 2011. A member requested that a minor update to the document could be provided and the Secretary confirmed that this could be accommodated.

Action agreed 3/20 — Electronic AIP (eAIP)

That the assigned member provides the updated Sample eAIP to the Secretariat for review and inclusion in Doc 8126 by 15 January 2011.

2.13 DEVELOPMENT OF PROVISIONS FOR ANNEXES 4, 14 AND 15 RELATED TO AERODROME MAPPING

2.13.1 The group considered AIS-AIMSG/3-SN/2 - Provisions for Aerodrome Mapping Data in ICAO Annexes, which outlined the current status of work which is expected to result in proposed amendments to Annex 4 — *Aeronautical Charts*, Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations*, Annex 15 — *Aeronautical Information Services* and the *Procedures for Air Navigation Services — ICAO Abbreviations and Codes* (Doc 8400, PANS-ABC) related to aerodrome mapping data.

2.13.2 The group reviewed the draft proposed amendments, discussed the issue of the applicability of fine versus medium data requirements and noted the next steps for review by the AIS-

AIMSG and coordination with the Aerodromes Panel (AP) Aerodromes Operations and Services Working Group to allow a proposal to be finalised for preliminary review by the Air Navigation Commission in the first quarter of 2012.

Action agreed 3/21 — Development of provisions for aerodrome mapping

- a) that the group provide comment on the proposal by 15 January 2011;
- b) that the ad-hoc group member review and harmonise the terminology and data accuracy/resolutions between the Annex 14 and 15 data quality appendices while taking into account EUROCAE/RTCA Committee WG44/SC217 guidance material, and relate fine data provisions to low visibility;
- c) that the assigned member
 1. check the appropriateness of the notes in the Annex 4 proposal and clarify the term “aerodromes regularly used by international civil aviation”; and
 2. send the revised proposal for comments by the group material by 15 February 2011.

2.14 GUIDANCE MATERIAL FOR AERODROME MAPPING

2.14.1 In accordance with Action agreed 2/12 — Follow-up on copyright permission from RTCA, the Secretariat reviewed the recent memorandum of understanding between ICAO and RTCA and informed that copyright of RTCA material for AMDB has not been waived for ICAO publication use. ICAO may provide references to RTCA documents as has been done in the past.

2.15 WORLD GEODETIC SYSTEM — 1984 (WGS-84) MANUAL (DOC9674)

2.15.1 The Secretariat informed that in accordance with Action agreed 2/15 the proposed text related to the use of coordinates transformation for inclusion in Amendment No. 1 to Doc 9674 had been reviewed and was incorporated into a draft amendment of Doc 9674. The document was in the editorial queue pending the development of guidance material on height reference systems in accordance with Action agreed 2/14.

Action agreed 3/22 — Guidance on the use of coordinates transformation

That an ad-hoc group provides guidance material on height reference systems for inclusion in Doc 9674 by 1 March.

2.16 AERONAUTICAL CHART MANUAL (DOC 8697)

2.16.1 The group considered AIS-AIMSG/3-SN/17 - Task regarding the Aeronautical Chart Manual (Doc 8697), which outlined the current status of work resulting Action agreed 2/16. The group noted coordination on this task with the Instrument Flight Procedure Panel Integration Working Group (IFPP-IWG) and the CANSO AIMWG/DG MAP.

2.16.2 CANSO support, with data compilation and chart production by the assigned member, has resulted in the completion of all the specimen charts in Doc 8697 in electronic form as well as additional charts such as RNAV and helicopter procedure chart examples and the World Aeronautical Chart — ICAO 1:1 000 000.

2.16.3 The group noted that further work remains in that the specimen charts should be reviewed by the IFPP IWG. In parallel the Secretariat should work on developing the associated chapter text and illustrations in line with the plan developed in AIS-AIMSG/2-SN/20. Priority should be given to updating the procedure chart chapters with the possibility of posting these on the ICAO web site and/or publication in a partial amendment/circular. It is expected that a complete new edition of the Doc 8697 would take a minimum of a year to finalise.

Action agreed 3/23 — Aeronautical Chart Manual (Doc 8697)

That the ad-hoc group continues developing the associated chapter text and illustrations in line with the plan developed in AIS-AIMSG/2-SN/20.

2.17 DATA INTEGRITY REQUIREMENTS

2.17.1 The group reviewed AIS-AIMSG-SN/13 which presented the work of an ad-hoc group formed during AIS-AIMSG/2 to clarify the means for measuring the integrity requirements stated in the SARPs and the need for guidance material.

2.17.2 The group observed that the current integrity values cannot be measured and there is debate as to the use of the values. It was surmised that the values could represent targets to be achieved or outline the need for defined data handling processes to be in place. Based on the observation that the integrity values could not be measured and thus there was no method of demonstrating compliance the group formed the position that the only use for the values was to categorise data into groups requiring specific requirements for processes involved with data handling.

2.17.3 The group agreed that in the development of Amendment 37, the numerical values should be removed from SARP material and consequential changes to other annexes identified. The integrity classifications would remain and introductory text explaining the relationship to the numerical values and the use of integrity classifications would be prepared by the Secretariat. The group understood that these actions will need to be coordinated within the Secretariat and that the views of other groups may need to be sought prior to completing this action.

Action agreed 3/24 — Data integrity requirements

That the Secretariat, in coordination with the group, prepare a proposed amendment for inclusion in Amendment 37 along with consequential amendments to other annexes, following coordination with other ICAO sections.

2.18 INCLUSION, IN THE AIS QUALITY MANUAL, OF QMS/SMS MODELS

2.18.1 The group considered AIS-AIMSG/3-SN/14 which was developed in response to Actions 2/17 and 2/18 from AIS-AIMSG/2 on the inclusion of safety management system (SMS) in the quality manual. The group was also informed on the intention of ICAO to form a new Annex to deal with safety management.

2.18.2 It was noted that SMS and quality management system (QMS) are complementary. SMS in many applications is implemented as an overarching process which is applied on an enterprise level throughout an organization. QMS is often applied at a lower level to achieve specific business outcomes.

2.18.3 While it was understood that SMS focuses on the safety, human and organizational aspects of an organization, QMS focuses on the products/services of an organization and predominately takes into account the satisfaction of the customer/end user.

2.18.4 The group noted that both QMS and SMS are subject to achieve the overall organization goals, however, once AIS organization intends to implement SMS, there are overlaps and potential conflicts with QMS.

2.18.5 The group expressed its difficulty understanding SMS as a process that would be applied in full and uniquely on an AIS unit (as opposed to an organization wide implementation). With this in mind, the group considered it premature to develop SMS related material for inclusion in Amendment 37 to Annex 15.

Action Agreed 3/25 — Inclusion of Appropriate SMS Elements in Quality Manual

That the ad-hoc group on the AIS quality manual develop draft material concerning the relationship of SMS and QMS for integration into the quality manual to be forwarded to the Secretariat by 15 January 2011.

2.19 AIS QUALITY MANUAL

2.19.1 The Secretary informed that the manual is undergoing review and will be finalized in the first half of 2011.

2.20 ELECTRONIC TERRAIN AND OBSTACLE DATA (ETOD)

2.20.1 The group considered AIS-AIMSG/3-SN/12 - Terrain and obstacle data, which provided an update on the progress of TOD implementation in Europe and the activities of EUROCONTROL in supporting European States. A EUROCONTROL TOD Working Group had identified a number of areas of uncertainty with Amendment 36 and has developed a draft TOD Manual which attempts to provide some clarification to these, to assist States in implementing TOD in a harmonized manner.

2.20.2 A summary of issues identified by the TOD Working Group are:

- a) the SARPs currently place the responsibility for determining which obstacles are hazards to air navigation on the State as the provider of the data, rather than on the users of the data. This is considered to have significant liability issues as it is only the end user that understands the context in which they will use the data and the impact of obstacles on their operations;
- b) the SARPs use the term “regularly used by international civil aviation” however, no definitive definition of this term is provided by ICAO. It is believed that a common definition would assist as this same phrase is used in several ICAO Annexes;
- c) it is unclear what terrain is to be surveyed to the Area 2 numerical requirements. The terrain requirements described in 10.1.5 refer to the obstacle data collection surfaces, whilst Figure A8-1 describes a different requirement. The Area 2 terrain data collected in accordance with paragraph 10.1.5 does not appear to serve any operational purpose;
- d) there is uncertainty about the surfaces to be applied for obstacle data collection in Area 2;
- e) Area 3 results in islands of data being collected which is of little operational use; and
- f) it is believed that Area 2 data is insufficient, in most cases, to meet the obstacle data requirements for Area 4 and that the note will result in a States not preparing the Area 4 obstacle datasets needed to replace the Precision Approach Terrain Chart.

2.20.3 The group considered that the remaining issues listed above could be clarified either in eTOD guidance or in Annex 15, Amendment 37

Action agreed 3/27 — Electronic terrain and obstacle data (eTOD)

That the ad-hoc group examine the issues raised by the TOD, resolve them as appropriate, and report to AIS-AIMSG/4.

2.21 AIM STAFF TRAINING GUIDANCE

2.21.1 The group considered AIS-AIMSG/3-SN/16 which reported on the progress being made on the development of an AIM Training Manual. It was reported that the approach being followed is to embody the competency based framework that ICAO has adopted for other training initiatives.

2.21.2 The group noted that the scope of the training manual would reflect the current provisions of Annex 15. There was concern expressed that an AIS Training Manual would be

historical and not be focussed on the needs connected with the move from AIS to AIM. It was considered by the group that regardless of title, AIM related components would be incorporated insofar as they related to meeting the provisions in the Annexes and guidance documents. It was further observed that the move to a competency based framework itself was evolutionary and fully supported the transition to AIM by identifying the required competencies that are distinct from the traditional provision of AIS.

Action agreed 3/29 — NGAPS outcome coordination

That the Secretariat undertake:

- a) to find out the outcomes of the NGAPS task force; and
- b) transmit then to the ad-hoc group.

Action agreed 3/30 — ICAO GREPECAS coordination

That the assigned member will undertake to provide contact details of a training expert previously involved with the effort undertaken by GREPECAS to develop AIS training materials.

Action agreed 3/31 — AIS Training Manual development

That the ad hoc group will develop the manual further and report back to the Study Group at the next meeting.

2.22 USE OF THE PUBLIC INTERNET FOR AERONAUTICAL APPLICATIONS

2.22.1 The group considered AIS-AIMSG/3-SN/10 which reported on European findings on the *Guidelines on the Use of the Public Internet for Aeronautical Applications* (Doc 9855). That paper discussed the results of a survey on the use of the public internet, security considerations, accreditation of public internet aviation service providers for AIS, time criticality, and the notion of ‘(non) operational use’ of the data in developing national policies for accessing information through Public Internet.

2.22.2 The group considered that the use of the public internet communication has made very significant improvements in AIS transmission and is often more available and reliable than other transmission means. The group supported the content of the paper and that more guidance should be developed for issues including determining an appropriate level of security, synchronisation of paper and internet products, and incorporating the use of the public internet in the data integrity process. The group indicated that they would be willing to contribute to assisting in an update of Doc 9855.

Action agreed 3/32 — Use of the Public Internet for Aeronautical Applications

That the Secretariat consider how to update the *Guidelines on the Use of the Public Internet for Aeronautical Applications* (Doc 9855) and report back to AIS-AIMSG/4.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the contents of this paper; and
- b) discuss the contents and provide comments to AIS-AIM SG member.

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Identification		Deficiencies			Corrective Actions			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target for completion	Priority for action
<u>WGS-84</u>								
Requirements of section 3.7.1 of Annex 15	Bhutan	WGS-84 - Not implemented	2/7/1999	Data conversion completed, but not published		Bhutan	TBD	A
	China	WGS-84 - Partially implemented Implemented in the Sanya FIR since 1 November 2001	2/7/1999	Differences to Annex 15 - <i>Aeronautical Information Services</i> are notified	<u>WGS-84 implementation is in progress in a phased manner.</u>	China	<u>China advised APANPIRG/19 (September 2008, Bangkok) that WGS 84 implementation is in progress and planned to be completed in 2010 for all existing airports. All new airports will use WGS84 immediately. China confirmed to ATM/AIS/SAR/SG/20 that the implementation would be completed by the end of 2010. China confirmed to AAITF/6 that the implementation would</u>	A

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Identification		Deficiencies			Corrective Actions			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target for completion	Priority for action
							<u>complete with the Kunming FIR by the end of 2011.</u>	
	DPR Korea	WGS-84 - Not implemented				DPR Korea	DPRK advised ATM/AIS/SAR/SG/18 verbally that WGS 84 implementation was completed. The Regional Office is waiting for a formal report.	A
	Kiribati	WGS-84 - Not implemented				Kiribati	TBD	A
	Nauru	WGS-84 - Not implemented		Conferring with consultant		Nauru	TBD	A
	Solomon Islands	WGS-84 - Not implemented				Solomon Islands	1999	A
	Vanuatu	WGS-84 - Implemented at main airports	2/7/1999			Vanuatu	1999	A

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Identification		Deficiencies			Corrective Actions			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target for completion	Priority for action
<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/SG/16 (June 2006) updated - AIP COOK ISLANDS in new format in progress with assistance of New Zealand, effective date by the end of 2008	A
	Kiribati	AIP Format - Not implemented	7/7/99			Kiribati	ATM/AIS/SAR/SG/18 (June 2008) updated - AIP in draft stage	A
	Nauru	AIP Format - Not implemented	7/7/99			Nauru	ATM/AIS/SAR/SG/18 (June 2008) updated - work soon to start	A
	Papua New Guinea	AIP Format - Not implemented	7/7/99		<u>A project is going on.</u>	Papua New Guinea	TBA	A

Survey on the Current Status for AIM Implementation in the Asia/Pacific Region

State:	
Respondent Name:	
Organization	
Job Title:	
Email:	

Related Phase 1

Q1. Has QMS been implemented in your State?

a) If yes, does your AIS organization have ISO9001 certification?

b) If no, please specify future plan.

Comment:

Q2. Do you consider "AIRAC adherence" is implemented in your State?

a) If no, please specify the reason etc.

Comment:

Q3. Has WGS-84 been implemented in your State?

a) If yes, specify if it is fully or partially implemented.

b) If no, specify future plan.

Comment:

Q4. Do you consider "Monitoring of Annex differences" is implemented in your State?

Yes/No

a) If yes, specify how it is implemented. (tool, methods etc.)

b) If no, specify future plan.

Comment:

Related Phase 2

Q5. Has electronic AIP been implemented in your State?

Yes/No

a) If no, specify future plan.

Comment:

Q6. Has electronic terrain data been implemented in your State?

a) If yes, specify detail.

b) If no, specify future plan.

Comment:

Q7. Has electronic obstacle data been implemented in your State?

b) If yes, specify detail.

c) If no, specify future plan.

Comment:

Q8. Has aerodrome mapping been implemented in your State?

a) If no, specify future plan.

Comment:

Q9. Has AICM/AIXM been implemented in your State?

a) If yes, specify the AIXM version number.

b) If no, specify future plan.

Comment:

Q10. Has "Integrated aeronautical information database" been implemented in your State?

Yes/No

a) If no, specify future plan.

Comment:

Q11. Has "Data integrity monitoring" been implemented in your State?

Yes/No

a) If yes, specify how it is implemented. (tool, methods)

b) If no, specify future plan.

Comment:

Q12. Has "Data quality monitoring" been implemented in your State?

a) If yes, specify how it is implemented. (tool, methods)

b) If no, specify future plan.

Comment:

Related Phase 3

Q13. Has training for AIS been implemented in your State?

a) If yes, is AIS officer required to obtain AIS license/certification, etc?

b) If no, specify future plan.

Comment:

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

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Date Last Amended: 17 March 2011

	Phase 1 Consolidation				Phase 2 Going Digital									Phase 3 Information Management							
	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
Afghanistan																					
Australia																					
Bangladesh																					
Bhutan																					
Brunei Darussalam																					
Cambodia																					
China	√	√		√													√			√	
Hong Kong, China																					
Macao, China																					
Cook Islands																					
DPR Korea																					
Fiji																					
India	√	√	√	√	√	√	√	√	√			√									
Indonesia																					
Japan																					
Kiribati																					
Lao PDR																					
Malaysia	√	√	√																		
Maldives																					
Marshall Islands																					
Micronesia																					
Mongolia																					
Myanmar																					
Nauru																					
Nepal																					
New Zealand																					
Niue (NZ)																					

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	Phase 1 Consolidation				Phase 2 Going Digital									Phase 3 Information Management							
	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
Pakistan																					
Palau																					
Papua New Guinea																					
Philippines																					
Republic of Korea																					
Samoa										√											
Singapore	√	√	√	√	√					√				√	√	√				√	
Solomon Islands																					
Sri Lanka																					
Thailand																					
Timor Leste																					
Tonga										√											
Vanuatu																					
Viet Nam																					
USA (American Samoa, Guam, Johnston Is, Kingman Reef, Midway, Northern Mariana Islands, Palmyra, Wake Is)																					
France (French Polynesia, New Caledonia, Wallis and Futuna Islands)																					

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AAITF TASK LIST

(Last updated ~~June 2010~~ **March 2011**)

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	Status	REMARKS
1.	Prepare a working/information paper to examine AIRAC system adherence in India	AAITF/6	India	Open Closed	Raised at AITF/3
<u>12.</u>	<u>Report on the outcome of the AIS-AIM Study Group</u>	<u>AAITF/76</u>	<u>Australia/China/Japan/United States</u>	Ongoing	Raised at AAITF/4
3.	Prepare PFF for the AAITF		Chairman	Completed	
<u>2.</u>	<u>Update Roadmap implementation plan status</u>	<u>AAITF/7</u>	<u>All States</u>	Ongoing	<u>Raised at AAITF/6</u>
<u>3.</u>	<u>Review draft Amendment 37 to Annex 15</u>	<u>AAITF/7</u>	<u>All States, United States</u>	Ongoing	<u>Raised at AAITF/6</u>
<u>4.</u>	<u>Review draft Amendment 38 to Annex 15</u>	<u>AAITF/7</u>	<u>All States, United States</u>	Ongoing	<u>Raised at AAITF/6</u>
<u>5.</u>	<u>Review draft amendment to AIS Manual (Doc 8126)</u>	<u>AAITF/7</u>	<u>All States</u>	Ongoing	<u>Raised at AAITF/6</u>
<u>6.</u>	<u>Review draft amendment to Aeronautical Chart Manual (Doc 8697)</u>	<u>AAITF/7</u>	<u>All States</u>	Ongoing	<u>Raised at AAITF/6</u>
<u>7.</u>	<u>Review draft AIM Quality Manual</u>	<u>AAITF/7</u>	<u>All States</u>	Ongoing	<u>Raised at AAITF/6</u>
<u>8.</u>	<u>Review draft AIM Training Manual</u>	<u>AAITF/7</u>	<u>All States</u>	Ongoing	<u>Raised at AAITF/6</u>