

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



**REPORT OF THE THIRD MEETING OF ICAO AERONAUTICAL
INFORMATION SERVICES IMPLEMENTATION TASK FORCE
(AITF/3)**

SINGAPORE, 20 – 22 JUNE 2008

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

TABLE OF CONTENTS

PART I - HISTORY OF THE MEETING

	Page
Introduction	i
Officer and Secretariat	i
Language and Documentation	i
Opening of the Meeting	i

PART II - REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Agenda.....	1
Agenda Item 2: Review of AITF/2.....	1
Agenda Item 3: Review of AITF Terms of Reference (TOR).....	2
Agenda Item 4: Review of APANPIRG/18.....	4
Agenda Item 5: Review of Recent ICAO Developments and Deliberations in Regard to the Establishment of the Aeronautical Information Services - Aeronautical Information Management Study Group (AIS-AIMSG) and Disbandment of the Aeronautical Information and Charts Study Group (AISMAPSG) and Aeronautical Data Modelling Study Group (ADMSG)	4
Agenda Item 6: Review of Air Navigation Deficiencies in the AIS Field & Proposed Action Plan	5
Agenda Item 7: Outcomes of Global AIS Congress.....	6
Agenda Item 8: Latest Developments in AIS Fields	7
Agenda Item 9: Review of Euro OPADD (Operating Procedures for AIS Dynamic Data) Edition 2.1 and Determination of Update Requirements for Asia/Pacific OPADD.....	7
Agenda Item 10: Any Other Business	8
Agenda Item 11: Review of Task List.....	8
Agenda Item 12: Date and Venue for the Next Meeting	8

AITF/3
Table of Contents

APPENDICES

Appendix A	List of Participants	A-1
Appendix B	List of Working and Information Papers	B-1
Appendix C	Expected Outputs of AIS-AIMSG	C-1
Appendix D:	Presentation on the Transition from AIS to AIM	D-1
Appendix E:	Tools for AIS Chiefs to be used against the Deficiencies.....	E-1
Appendix F:	Electronic Terrain and Obstacle Data presented by Eurocontrol.....	F-1
Appendix G:	Special Implementation Project for AIS in Asia/Pacific.....	G-1
Appendix H:	AITF Task List.....	H-1

.

PART I - HISTORY OF THE MEETING

1. Introduction

1.1 The Third Meeting of ICAO AIS Implementation Task Force (AITF/3) was held at Singapore Aviation Academy, Singapore from 20 to 22 June 2008.

1.2 The meeting was attended by 40 experts from Australia, Bangladesh, Hong Kong China, India, Indonesia, Japan, Lao PDR, Malaysia, Mongolia, New Zealand, Philippines, Republic of Korea, Singapore, Sri Lanka, Viet Nam, Thailand, United States, Eurocontrol and Jeppesen. A list of participants is attached at **Appendix A** to this Report.

2. Officer and Secretariat

2.1 Mr. Peter Hobson, AIS Specialist, Safety Management, Airservices Australia continued as the Chairperson of the Task Force. Mr. Kyotaro Harano, Regional Officer Air Traffic Management (ATM), ICAO Asia and Pacific Office, was the Secretary for the meeting.

3. Language and Documentation

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

4. Opening of the Meeting

4.1 Mr. Peter Hobson welcomed all delegates. He thanked and welcomed participants from Asia/Pacific States for extending their visit to the Global AIM Congress in Singapore to accommodate AITF/3. Mr. Hobson acknowledged that for some, the scheduling of AITF over a weekend was abnormal. Special thanks went to Singapore for assisting with and sponsoring the AIS Global Congress and AITF/3. He also thanked all participants for travelling to Singapore, giving up their weekend to work for the Task Force.

4.2 On behalf of Mr. Mokhtar A. Awan, Regional Director of ICAO Asia and Pacific Office, Mr. Kyotaro Harano welcomed all the delegates to AITF/3. Firstly, he expressed his appreciation to Singapore for hosting that significant meeting over the weekend right after the AIM Congress. In the same token, he thanked all the participants for staying on in Singapore over the weekend for AITF/3. He also thanked Mr. Chairman, who had already made a strong contribution towards AITF/3.

4.3 Mr. Harano highlighted that the importance of aeronautical information and charts services in the context of the CNS/ATM systems was repeatedly confirmed. In this regard, the ICAO headquarters was now envisaging AIS transition to the provision and management of information that was data centric, as opposed to product centric, within a broader concept of aeronautical information management (AIM) in order to satisfy the requirements arising from the ICAO Global ATM Operational Concept. He concluded his opening remarks by wishing the meeting a successful outcome.

PART II - REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Agenda

1.1 The Secretariat suggested amendments to the proposed agenda. The meeting agreed and adopted the agenda as amended (with ~~strikeout (text to be deleted)~~ and grey shading (text to be inserted)) as follows:

Agenda Item 1	Adoption of Agenda
Agenda Item 2	Review of AITF/2
Agenda Item 3	Review of AITF Terms of Reference (TOR) & Task List
Agenda Item 4	Review of APANPIRG/18
Agenda Item 5	Review of Recent ICAO Developments and Deliberations in Regard to the Establishment of the Aeronautical Information Services - Aeronautical Information Management Study Group (AIS-AIMSG) and Disbandment of the Aeronautical Information and Charts Study Group (AISMAPSG) and Aeronautical Data Modelling Study Group (ADMSG)
Agenda Item 6	Review of Air Navigation Deficiencies in the AIS Field & Proposed Action Plan
Agenda Item 7	Outcomes of Global AIS Congress
Agenda Item 8	Latest Developments in AIS Fields
Agenda Item 9	Review of Euro OPADD (Operating Procedures for AIS Dynamic Data) Edition 2.1 and Determination of Update Requirements for Asia/Pacific OPADD
Agenda Item 10	Any other Business
<u>Agenda Item 11</u>	<u>Review of Task List</u>
Agenda Item 11 <u>12</u>	Date and Venue for the Next Meeting

Agenda Item 2: Review of AITF/2

2.1 Australia presented the meeting with the summary review of AITF/2 (February 2007, Bangkok).

Review of APANPIRG/17 by AITF/2

2.2 The 17th meeting of Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/17, August 2006) had expressed concerns about the non-compliance with Annex 15 – *Aeronautical Information Services* provisions in respect to AIRAC periods. AITF/2 considered that the lack of knowledge in the field of AIS among the administrations, project managers, navaid maintenance technicians, etc. could be brought to the attention of the annual

Conference of the Directors General of Civil Aviation for the commitment to eliminate the non-compliance of the AIRAC cycles. The Chairman suggested that he consider how best to relay the Task Force concerns via APANPIRG to the Director General level.

Review of Air Navigation Deficiencies in the AIS Field

2.3 AITF/2 recalled that Australia had been keen to assist with diminishing the regional AIS deficiencies, and Australia offered to AITF/2 to continue to lead a sub-group of the Task Force and requested continuing assistance from China, Fiji, India and New Zealand. Australia proposed that the preliminary range of activities be worked against prior to the development of a full plan.

Review of Euro OPADD (Operating Procedures for AIS Dynamic Data) Edition 2.0 and Determination of Update Requirements for Asia/Pacific OPADD

2.4 AITF/2 was presented with the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region* (First Edition, 2002) by Japan with CDs. The difference between Euro OPADD and the current Asia/Pacific Region OPADD were tabled for consideration. AITF/2 was requested to review these differences.

2.5 AITF/2 agreed with the recommendation by Japan and proposed draft amendments to Chapter 3 of the Guidance Manual for AIS in the Asia/Pacific Region to be considered by the 17th meeting of ATM/AIS/SAR Sub-Group (ATM/AIS/SAR/SG/17, July 2007). Japan forwarded a working paper for ATM/AIS/SAR/SG/17 to the Secretariat.

Item B) of the NOTAM Format in Appendix 6 of Annex 15

2.6 The meeting recalled that Japan presented AITF/2 with the possibility of different interpretations, and potential confusion and system impact when a future date-time in Item B) of NOTAMR and NOTAMC is allowed.

Chairman's Notice of Items of Specific Relevance to ATS/AIS/SAR/SG

2.7 In light of the summary report of AITF/2 from Australia above, the Chairman noted that AITF/2 had requested him to consider how best to relay the Task Force concerns in relation to non-adherence to AIRAC procedures via APANPIRG to the Director General level. Further; in light of the discussions on AIRAC, he noted that APANPIRG/18 (September 2007, Bangkok) developed Conclusion 18/16.

2.8 In relation to AIS deficiencies, Australia would continue to lead a sub-group to develop a full program of activities, but in the interim would work against a list of preliminary activities. Further, a State had observed a difficulty with poorly trained and under-qualified AIS staff. AITF/2 acknowledged the AIS difficulties faced by developing States but that immediate assistance was not readily available.

Agenda Item 3: Review of AITF Terms of Reference (TOR)

3.1 The Chairman proposed amendment to the TOR to the meeting to consider the results from the ICAO Aeronautical Information Services - Aeronautical Information Management Study Group which was newly created by ICAO Air Navigation Commission (ANC). In light of the ICAO's lead at the global level with regard to the transition from AIS to AIM, the Secretariat suggested including the task of monitoring the development of the transition from AIS to AIM carried out by the headquarters.

3.2 Further, the meeting was of view that the name of the Task Force should also be changed to reflect the transition from AIS to AIM. The meeting agreed that the name and the TOR for the Task Force be amended as shown with ~~strikeout (text to be deleted)~~ and grey shading (text to be inserted) below:

TERMS OF REFERENCE OF THE AIS-~~AIS~~ AIM IMPLEMENTATION TASK FORCE (AITF)

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, and based on a), develop guidance material for operation of data management systems;
- c) assist States to implement Quality 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; ~~and~~
- 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 Aeronautical Information Management (AIM), and in particular monitor development of the replacement 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 Data Model Study Group (ADMSG)~~ Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG);
- b) amendments to Annex 4, Annex 15, 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);

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

3.3 The meeting agreed that the proposal of amendments would be made to ATM/AIS/SAR/18 scheduled in June 2008 in Bangkok, Thailand for the adoption by the Sub-Group.

Agenda Item 4: Review of APANPIRG/18

4.1 The Chairman provided the meeting with the review of APANPIRG/18. The Secretariat informed the meeting of the outcomes of the review by the ANC Working Group on the Regional Plans.

Agenda Item 5: Review of Recent ICAO Developments and Deliberations in Regard to the Establishment of the Aeronautical Information Services - Aeronautical Information Management Study Group (AIS-AIMSG) and Disbandment of the Aeronautical Information and Charts Study Group (AISMAPSG) and Aeronautical Data Modelling Study Group (ADMSG)

Evolution of Requirements for the Transition from AIS to AIM

5.1 The meeting recalled that the 11th Air Navigation Conference (AN-Conf/11, October 2003), held in Montreal, endorsed the ATM Operational Concept and recognized that, in the global ATM system environment envisioned by the Operational Concept, AIS would become one of the most valuable and important enabling services. The Conference developed Recommendation 1/8, which called upon ICAO to: define requirements for safe and efficient global aeronautical information management (AIM); adopt a common aeronautical information exchange model; and develop new specifications for Annex 4 – *Aeronautical Charts* and Annex 15 – *Aeronautical Information Services* that would govern the electronic availability of aeronautical information and charts.

5.2 Realizing the safety-critical nature of aeronautical information, the Global AIS Congress (June 2006, Madrid) agreed that, in order to prevent diverging developments in the future it was considered essential that ICAO take the lead at the global level with regard to the transition from AIS to AIM. Accordingly, the Congress developed ten recommendations calling for ICAO action or support from States and international organizations. The 36th Session of the Assembly (September 2007, Montreal) recognized the need for the Secretariat to support the recommendations of the Congress together with the need for further coordination and transparency.

Proposed New Study Group

5.3 ANC had agreed, in view of the complexity of the issues involved in the transition from AIS to AIM, that a new study group be established to assist the Secretariat in progressing the work programme. It was considered that establishment of a new study group would show commitment by ICAO to address the recommendations of the Global AIS Congress while providing current expertise, global participation and transparency in the development of AIM-related provisions.

5.4 It was suggested that the new study group be named the Aeronautical Information Services - Aeronautical Information Management Study Group (AIS-AIMSG) to indicate its involvement with the transition from AIS to AIM and so as not to cause confusion with the Accident Investigation Methodology Study Group (AIMSG). In line with the work programme, it was proposed that the AIS-AIMSG be tasked with assisting the Secretariat with the development of a global strategy/roadmap for the transition from AIS to AIM and to prepare new AIM-related standard and recommended practices (SARPs) and guidance material.

5.5 The meeting reviewed the information provided by the Secretariat, in particular, paragraph 2.6 of IP/3 regarding digital exchange model. Details of expected outputs of AIS-AIMSG are provided in **Appendix C** to this Report. The meeting was in full support of the work programmed for AIS-AIMSG.

Proposed Dissolution of Study Groups

5.6 The meeting noted that AIS-AIMSG would be established to assist the Secretariat with the development of:

- 1) a global strategy/roadmap for the transition from AIS to AIM to be delivered in draft by early 2009;
- 2) SARPs and guidance material, expected by 2010, related to the provision of a standard aeronautical information conceptual model and standard aeronautical information exchange model to enable the global exchange of data in digital format;
- 3) other SARPs, guidance and training material necessary to support AIM implementation by 2013.

5.7 The Secretariat provided a PowerPoint presentation prepared by the ICAO headquarters for the Global AIM Congress as in **Appendix D** to this Report.

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

Preliminary Examination of Action(s)

6.1 Australia reported on an examination of deficiencies in the Asia/Pacific Region in relation to AIS matters. Australia provided a historical summary of identified deficiencies and research by way of survey that had been conducted by the Regional Office and presented to AITF/2. Australia also provided a proposed some actions (and “tools” in the form of draft letters as in **Appendix E** to this Report) that might assist States in their endeavours to eliminate the identified deficiencies. It was noted that the area of highest concern was that some States had insufficient resources to fully meet the ICAO requirements, and as a consequence have a number of deficiencies that are enduring. AIS Chief’s were encouraged to obtain quotes and seek funding from their administrations to address deficiencies in the implementation of:

- WGS 84
- ICAO Format AIP
- Quality Systems, and peer review; and
- AIS/NOTAM Automation.

6.2 The meeting agreed that the draft letters would be a useful tool and might be useful in attracting remedial actions to improve AIS in their States. Particularly, a consistent theme throughout the three days was adherence to AIRAC notification in the Action Plan number 6. A proposed action for the Chairman to invite an industry participant to assist this Region to score its adherence to AIRAC was supported by the Task Force. The scoreboard would serve two major purposes – firstly, it would provide valuable data to indicate the true extent of the problem and trend analysis as improvement strategies are implemented; and secondly, a tool for directly identifying circumstances where AIRAC notification periods have not been met so that the root cause(s) can be examined and solutions found thus providing a learning and continuous improvement benefit.

6.3 A question was raised about the AIRAC effective time. Republic of Korea agreed to prepare a working paper for AITF/4 regarding AIRAC effective time and its application in Asia and Pacific Region. India agreed to prepare a working paper for AITF/4 regarding the AIRAC notification. A full investigation for applicability of Eurocontrol tools for the self-measurement of AIS Key Performance Indicators and Checklist is an open task for the Task Force.

6.4 The meeting discussed the opportunity for States to cooperate and implement a collaborative approach to AIS investments and acquisitions. The meeting noted that some States were in the process of acquiring AIS automation software and hardware, and that the sharing of those experiences with other States was unrestricted. Further, some States openly welcomed approaches from other States for whom an individual AIS platform was likely to be not cost effective and would rather seek an agency/partner type arrangement. The Task Force benefited from seeing the trade displays of AIS automation vendors at the AIS Congress and noted that the solutions being offered in the market today were advanced, mature and fully functional.

6.5 The meeting was presented with much information on Electronic Terrain and Obstacle Databases (eTOD) and industry developments. Specifically, the presentation by Mr. Ken Reid of Eurocontrol (**Appendix F** to this Report) and Mr. Bill Kellogg of Jeppesen built learning onto the presentations from Japan at AITF/2 (February 2007, Bangkok). The meeting was also made aware of ICAO special implementation project (SIP) funding for a special eTOD workshop. The meeting welcomed the SIP and planned for its use; meanwhile in relation to the provisions of eTOD in Annex 15, the meeting noted the formation of amendment proposals, the implementation dates, and that of ongoing debate as to how States could meet (or not) the expensive and exhaustive requirements. In this regard the meeting agreed to maintain the implementation of eTOD as an open item on the task list.

Agenda Item 7: Outcomes of Global AIS Congress

7.1 The meeting recognized that States which also attended the Global AIM Congress (June 2008, Singapore) felt that the Congress was informative to AIM and very beneficial as it was educational to the participants. The meeting supported the Congress and encouraged States to continue to attend the Congress.

Agenda Item 8: Latest Developments in AIS Fields

Proposal for the Amendment of Annexes 4, 11 and 15, PANS-ABC, PANS-ATM and PANS-OPS

8.1 The Secretariat informed the meeting of the recent proposal for the amendments of Annexes 4 – *Aeronautical Charts*, 11 – *Air Traffic Services*, 15 – *Aeronautical Information Services*, the *Procedures for Air Navigation Services – ICAO Abbreviations and Codes* (PANS-ABC, Doc 8400), the *Procedures for Air Navigation Services – Air Traffic Management* (PANS-ATM, Doc 4444) and the *Procedures for Air Navigation Services – Aircraft Operations* (PANS-OPS, Doc 8168), relating to instrumental flight procedures. It is envisaged for applicability of Annexes 4, 11, 15 and the PANS-ATM on 19 November 2009. There was only short discussion on the content of the information and the information was duly noted by the meeting.

Presentations by Jeppesen

8.1 Jeppesen made presentations on proposed Annex 15 amendment raised in Europe.

Agenda Item 9: Review of Euro OPADD (Operating Procedures for AIS Dynamic Data) Edition 2.1 and Determination of Update Requirements for Asia/Pacific OPADD

9.1 Japan and New Zealand jointly recommended the adoption of the Euro OPADD (Edition 2.1) in the Asia/Pacific Region, continuing the practice of harmonizing NOTAM operating procedures in the Asia/Pacific Region with those in European States, and fostering global harmonisation. Japan and New Zealand identified the changes to the NOTAM operating procedures and concluded that this revision was a minor review. The meeting agreed to:

- a) to endorse the work of the AIS Operations Subgroup of Eurocontrol and adopt Edition 2.1 (except for Chapter 6, 6.2 Procedures using an Item x) of the OPADD; and
- b) encourage States to review Edition 2.1 of the OPADD to identify and correct any items of non-conformance.

9.2 Consequently, the meeting will recommend to ATM/AIS/SAR/SG/18 scheduled in late June 2008 that Euro OPADD (Edition 2.1) be formally adopted in the Asia/Pacific Region. Accordingly, the meeting formulated the following recommendation:

Recommendation – Amendment to Chapter 3 of Guidance Material for Aeronautical Information Services (AIS) in the Asia/Pacific Region

That the amended Chapter 3 (OPADD) of the Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region as shown in Appendix XX to the APANPIRG/18 Report on Agenda Item 3.2 be adopted and circulated as regional guidance material.

Agenda Item 10: Any Other BusinessICAO Special Implementation Project

10.1 The meeting was informed that SIPs were established under a special budget of the ICAO Assembly and were designed to assist States in overcoming problems of implementation, which may have significant adverse effects on the safety, regularity or efficiency of international civil aviation. APANPIRG/18 considered ways to assist those States to improve their AIS capability and formulated Conclusion 18/12 – Assistance to States to Improve AIS Capability. APANPIRG/18 also adopted Conclusion 18/15 – Strategies to Implement eTOD.

10.2 Arising from proposals prepared by the Regional Office, the AIS Seminar/Workshop SIP has been approved by ICAO Council for 2008. Therefore, the purpose of the approved SIP is to conduct a combined workshop/seminar for States in the Asia/Pacific Region to address issues related to AIS automation and electronic terrain and obstacle data (eTOD) implementation.

10.3 The meeting noted that the combined workshop/seminar was to ensure that all concerned States of the Asia/Pacific Region have up-to-date information enabling the set-up of proper mechanisms to ensure the improvement of AIS capability towards automation and to demonstrate to States methodologies to draw up an action plan with a view to implementing eTOD as required by Annex 15. Details in respect of the SIP proposal are included as **Appendix G** to this Report. Planning had not yet commenced for the SIP. The Task Force was requested by the Secretariat to consider the way forward for the combined workshop/seminar to be held in 2008/2009 and the potential availability of a State to host the SIP.

Static Data Procedures (SDP) in Japan

10.4 Japan described that the SDP in Japan presented some model SDP to meet the new AIS requirements of ICAO. The information presented by Japan was considered relevant to the Task Force and in particular those States implementing quality procedures and processes. The work by Eurocontrol in the development of SDP was noted to be an additional resource for the participants, the following websites refer: http://www.eurocontrol.int/aim/public/standard_page/qm_sdp.html and http://www.eurocontrol.int/aim/public/standard_page/qm_dataintegrity.html

Draft Chairman's Report to the Sub-Group

10.5 The Chairman advised that draft Working Paper 7 had been withdrawn prior to the meeting.

Agenda Item 11: Review of Task List

11.1 The meeting reviewed the task list of the Task Force as in **Appendix H** to this Report.

Agenda Item 12: Date and Venue for the Next Meeting

12.1 The meeting agreed tentatively that the next meeting of the Task Force would be held in February/March/April 2009 in Japan in conjunction with the AIS Automation/eTOD seminar/workshop.

13. **Closing of the Meeting**

13.1 Mr. Hobson thanked all the participants for their contributions and attendance at AITF/3. He thanked for Singapore AIS staff and those from the Singapore Aviation Academy that supported the meeting. Mr. Hobson thanked ICAO in both preparation of the meeting and the follow-up work. He thanked participants for taking advantage of the preceding the Global AIM Congress and for working over the weekend. The Task Force meeting will be convened again next year but perhaps only nine months after; hopefully in Japan.

13.2 Mr. Harano noted that the meeting counted as many as 40 delegates in spite that the meeting was held over a weekend. The meeting was conducted very smoothly because the core members prepared well in advance. Mr. Harano thanked the core members for the preparation of the meeting.

13.3 Mr. Harano thanked all the participants for their attendance and interest. He thanked the Singapore for providing facilities and the secretariat work. He also thanked Mr. Hobson for his role of the chairman. Finally, he wished all the participants safe trip back to home.

.....

AITF/3
Appendix A to the Report

List of Participants

	Name	Title/Organization	TEL/FAX/E-MAIL
1.	AUSTRALIA (2)		
	1. Mr. Tony Williams	Head, Airways Section Air Traffic Operations Group Civil Aviation Safety Authority GPO Box 2005 Canberra ACT 2601 Australia	Tel: +61-2-6217 1737 Fax: +61 2 6217 1500 E-mail: tony.williams@casa.gov.au
	2. Mr. Peter Hobson	Manager AIS Airservices Australia GPO Box 367 Canberra ACT 2600 Australia	Tel: +61-2 6268 4045 Fax: +61-2-6268 5689 E-mail: peter.hobson@airservicesaustralia.com
2.	BANGLADESH (2)		
	3. Mr. Rafiqul Islam	Assistant Director AIS Headquarter Civil Aviation Authority Bangladesh Kurmitola, Dhaka-1229 Bangladesh	Tel: +880-2-8914810-19/Ext 3431 Fax: +880-2-8913322 E-mail: ais_caab@access.tel.net
	4. Mr. Shamsul Haque	Senior Aerodrome Officer AIS Headquarter Civil Aviation Authority Bangladesh Kurmitola, Dhaka-1229 Bangladesh	Tel: +880-2-8914810-19/Ext 3431 Fax: +880-2-8913322 E-mail: ais_caab@access.tel.net
3.	HONG KONG, CHINA (1)		
	5. Ms. Angela Suk-ye Lee	AIS Briefing Officer AIS, Air Traffic Management Division Civil Aviation Department Air Traffic Control Complex 1 Control Tower Road Hong Kong International Airport Hong Kong, China	Tel: +852-2910 6252 Fax: +852-2910 1180 E-mail: asylee@cad.gov.hk
4.	INDIA (2)		
	6. Mr. Jag Mohan Jolly	Jt. GM (Com) Airports Authority of India Rajiv Gandhi Bhawan Safdarjung Airport New Delhi 110003 India	Tel: +91 (11) 24632947 Mobile: +91-9810363604 Fax: +91 (11) 24693963 E-mail: jmjolly@aai.aero
	7. Mr. Chandra Pratap Dwivedi	Senior Manager (CNS) Directorate of Communication Airports Authority of India Rajiv Gandhi Bhawan Safdarjung Airport New Delhi 110003 India	Mobile: +91-9810780235 Fax: +91 (11) 24693963 E-mail: cpdwivedi@aai.aero

AITF/3
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
5.	INDONESIA (5)		
	8. Ms. Dinni Noerdiani	Deputy Director for AIS Directorate of Aviation Safety, DGCA-Indonesia Jl. Medan Merdeka Barat 8 Jakarta 10110 Indonesia	Tel: +(62) 21 3507603 E-mail : dinni_n@yahoo.com
	9. Ms. Lely Munajah	AIS Officer PT. Angkasa Pura I. Kemayoran Jakarta Indonesia	Tel: +(62) 21 6541961 Fax: +(62) 21 6541513 E-mail : leilmoon64@yahoo.co.id E-mail : atc@angkasapura1.co.id
	10. Ms. Sri Lestari Yuni Catur	AIS Officer Directorate of Aviation Safety DGCA-Indonesia Jl. Medan Merdeka Barat 8 Jakarta 10110 Indonesia	Tel: +(62) 21 3507603 Fax: +(62) 21 3507603 E-mail : tari_yunicatur@yahoo.com E-mail : ais_indonesia@indo.net.id
	11. Mr. Farid Wajdi	Chief of Aeronautical Cartography Section Directorate of Aviation Safety DGCA-Indonesia Jl. Medan Merdeka Barat 8 Jakarta 10110 Indonesia	Tel: +(62) 21 3507603 Fax: +(62) 21 3507603 E-mail : farizd_aismap@yahoo.com
	12. Mr. Asuta Yohanis	Assistant Manager AIS and Flight Services Samratulangi Airport – Manado North Sulawesi Indonesia	Tel: +(62) 21 431814325 Fax: +(62) 21 431811595 E-mail : johanesasuta@yahoo.com
6.	JAPAN (1)		
	13. Mr. Masanori Kojima	Aeronautical Information Officer AIS Center, Operations and Flight Inspection Div. Air Traffic Services Department Civil Aviation Bureau Ministry of Land, Infrastructure, Transport and Tourism 133 Komemae Furugome Narita-shi Chiba 282-0004, Japan	Tel: +(81) 476-33-5515 Fax: +(81) 476-33-5517 E-mail : kojima- m41s8@ais.mlit.go.jp
7.	LAO PDR (1)		
	14. Mr. Khine Simvongsa	Chief AIS Department of Civil Aviation Wattay International Airport P.O. Box 119 Vientiane Lao PDR	Tel: +856 21 512164 Fax: +856 21 520237 E-mail: ksimvongsa@yahoo.com

AITF/3
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
8.	MALAYSIA (2)		
	15. Mr. Azham Ahmad	Assistant Director Aeronautical Information Services Department of Civil Aviation Air Traffic Control Tower Complex 64000 KLIA, Selangor Malaysia	Tel: +60 (3) 8787 4118 Fax: +60 (3) 8926 5989 E-mail: azham@dca.gov.my
	16. Mr. Tan Kim Sin	Assistant Director (AIS) Air Traffic Services Division Department of Civil Aviation No. 27 Persiaran Perdana Level 4, Podium Block B, Precinct 4 62618 Putrajaya Malaysia	Tel: +60 (3) 8871 4284 Fax: +60 (3) 8881 0530 E-mail: tanks_aisatshq@yahoo.com tanks@dca.gov.my
9.	MONGOLIA (2)		
	17. Mr. Erdenebaatar Davaasuren	AIS Manager Civil Aviation Authority of Mongolia Aeronautical Information Services Chinggis Khaan International Airport P.O Box-59 Ulaanbaatar-34 Mongolia	Tel: +976 11 285514 Fax: +976 11 313157 E-mail: erdenebaatar.d@mcaa.gov.mn
	18. Ms. Ariungerel. P.	Director Civil Aviation Authority of Mongolia Aeronautical Information Services Chinggis Khaan International Airport P.O Box-59 Ulaanbaatar-34 Mongolia	Tel: +976 11 283131 Fax: +976 11 283202 E-mail: ariungerel@mcaa.gov.mn
10.	NEW ZEALAND (2)		
	19. Mr. Stu Douglas	ATS Systems Specialist Airways Corporation of New Zealand Ltd. P.O. Box 14-131 Christchurch New Zealand	Tel: +64-3-358 1629 E-mail: stu.douglas@airways.co.nz
	20. Mr. Trent Clarke	Team Leader - AIM Airways Corporation of New Zealand Ltd. P.O. Box 294 Wellington 6140 New Zealand	Tel: +64-4-471 5691 Fax: +64-4-471 5813 E-mail: trent.clarke@airways.co.nz
11.	PHILIPPINES (1)		
	21. Mr. Jose D. De Vera	Chief, Airways Communicator Air Transportation Office 4/F Air Traffic Service Old MIA Road, Pasay City 1300 Philippines	Tel: +63 (2) 8799159, 8323037, 8799282 Fax: +63 (2) 8799288, 8323037 E-mail: deverajose@yahoo.com

AITF/3
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
12.	REPUBLIC OF KOREA (2)		
	22. Ms. Kim, Que hee	Assistant Director, ATM Division Civil Aviation Safety Authority 274, Gwahae-Dong,Gangseo-Gu, Seoul, Republic of Korea 157-711	Tel: + 82-2-2669-6428 Fax: +82-2-6342-7289 E-mail: quehee42@mltm.go.kr
	23. Mr. Kang, Kyeong-beom	ANS Inspector, Assistant Director, ANS Standards and Safety Division Civil Aviation Safety Authority 274, Gwahae-Dong,Gangseo-Gu, Seoul, Republic of Korea 157-711	Tel: + 82-2-2669-6458 Fax: +82-2-2669-6498 E-mail: kangops@mltm.go.kr
13.	SINGAPORE (5)		
	24. Mr. Ashok Kumar	Assistant Director (Air Navigation Services) Air Traffic Services Division Civil Aviation Authority of Singapore # 046-043, 4 th Storey Terminal 2 Singapore 819643	Tel: +65-6541 2556 Fax: +65-6545 6516 E-mail: ashok_kumar@caas.gov.sg
	25. Ms. Wong Liang Fen	Chief, Aeronautical Information Service Civil Aviation Authority of Singapore Singapore Changi Airport P.O. Box 1 Singapore 918141	Tel: +65-6541 2426 Fax: +65-6543 1826 E-mail: wong_liang_fen@caas.gov.sg
	26. Ms. Charn Kaur	Assistant Chief, Aeronautical Information Service Civil Aviation Authority of Singapore Singapore Changi Airport P.O. Box 1 Singapore 918141	Tel: +65-6541 2439 Fax: +65-6543 1826 E-mail: charn_kaur@caas.gov.sg
	27. Mr. R. Balakrishnan	Air Navigation Services Officer Air Traffic Services Division Civil Aviation Authority of Singapore # 046-043, 4 th Storey Terminal 2 Singapore 819643	Tel: +65-6541 2434 Fax: +65-6545 6516 E-mail: balakrishnan_raman@caas.gov.sg
	28. Mr. Mohamed Fadzil Bin Mohamed Jakaria	Air Navigation Services Officer Air Traffic Services Division Civil Aviation Authority of Singapore # 046-043, 4 th Storey Terminal 2 Singapore 819643	Tel: +65-6541 2419 Fax: +65-6545 6516 E-mail: fadzil_md_jakaria@caas.gov.sg

AITF/3
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
14.	SRI LANKA (1)		
29.	Ms. S.G.D. Vineetha	Senior Aeronautical Information Services Officer Civil Aviation Authority of Sri Lanka 64 Galle Road Colombo-3 Sri Lanka	Tel: +94-11-243 8601 Fax: +94-11-244 0231 E-mail: comcaa@sltnet.lk
15.	THAILAND (3)		
30.	Ms. Pattarawadee U-Pan	Ground Instructor Civil Aviation Training Center 1032/355 Paholyothin Road Chatuchak, Bangkok 10900 Thailand	Tel: +66-2-272 5741-4 Fax: +66 (2) 2725288 E-mail: pattarawadeey@yahoo.com
31.	Mr. Suvichan Sthitgitpichead	Air Traffic Control Manager Area Control Centre Aeronautical Radio of Thailand Limited 102 Ngarmduplee, Tungmahamek Sathorn, Bangkok 10120 Thailand	Tel: +66 (2) 287 8024 Fax: +66 (2) 287 8026 E-mail : suvichan.st@aerothai.co.th
32.	Mr. Bunpot Kujaphun	General Administrative Manager Aeronautical Information Services Centre Aeronautical Radio of Thailand Limited 102 Ngarmduplee, Tungmahamek Sathorn, Bangkok 10120 Thailand	Tel: +66 (2) 131 3641 Fax: +66 (2) 131 3640 E-mail : bunpot.ku@aerothai.co.th
16.	UNITED STATES (2)		
33.	Mr. Gregory Pray	ATO, System Operations Airspace and AIM Office Aeronautical Information Management Group Aeronautical Information Specialist US Federal Aviation Administration 800 Independence Ave. S.W. Washington, D.C. 20591 U.S.A.	Tel: +1-202-267 9292 E-mail: gregory.pray@faa.gov
34.	Ms. Catherine Riccio	ATO, System Operations Airspace and AIM Office Aeronautical Information Management Group Aeronautical Information Specialist US Federal Aviation Administration 800 Independence Ave. S.W. Washington, D.C. 20591 U.S.A.	Tel: +1-202-267 9302 E-mail: catherine.a.riccio@faa.gov

AITF/3
Appendix A to the Report

	Name	Title/Organization	TEL/FAX/E-MAIL
17.	VIET NAM (2)		
	35. Ms. Ho Thi Doan Trang	Civil Aviation Administration of Vietnam 119 Nguyen Son Str. Long Bien District, Ha Noi Vietnam	Tel: +84-4 8723600 Fax : +84-4 8274194 E-mail: hodoantrang@caa.gov.vn
	36. Ms. Vu Thi Thuy Ha	AIS Manager, Vietnam Air Traffic Management Civil Aviation Administration of Vietnam 6/200 Nguyen Son Str Long Bien District, Ha Noi Vietnam	Tel: +84-4 8730321 Fax : +84-4 8725281 E-mail: vuthuyha_vatm@yahoo.com
18.	EUROCONTROL (1)		
	37. Mr. Ken Reid	Chairman of the AIS Team Eurocontrol Rue de la Fusée 96 B-1130 Brussels Belgium	Tel : +32 2 729 3038 Fax : +32 2 729 9008
19.	JEPPESEN (2)		
	38. Mr. Bill Kellogg	International Aviation Affairs JEPPESEN 55 Inverness Drive East Englewood, CO U.S.A.	Tel: +303-328 4390 Fax: +303-328 4111 E-mail: bill.kellogg@jeppesen.com
	39. Mr. Werner Kurz	Director, International Aviation Affairs JEPPESEN GmbH Frankfurter Strasse 233 63263 Neu-Isenburg, Germany	Tel: +49 6102 50 81 70 Fax: +49 6102 50 72 39 E-mail: Werner.kurz@jeppesen.com
20.	ICAO (1)		
	40. Mr. Kyotaro Harano	Regional Officer, Air Traffic Management ICAO Asia & Pacific Office 252/1 Vibhavadi Rangsit Rd Ladyao, Chatuchak Bangkok 10900, Thailand	Tel: +66-2-5378189 ext 159 Fax: +66-2-5378199 E-mail: kharano@bangkok.icao.int

LIST OF WORKING AND INFORMATION PAPERS

WORKING PAPERS

NUMBER	AGENDA	WORKING PAPERS	PRESENTED BY
WP/1	1	Provisional Agenda	Secretariat
WP/2	2, 3	Review of the Second Meeting of AIS Implementation Task Force	Australia
WP/3	3	Terms of Reference and the Task List of AITF	Secretariat
WP/4	4	Review of the Report of APANPIRG/18 and Follow-Up on Decisions and Conclusion Relevant to the AIS Field	Chairman
WP/5	6	Preliminary Examination of Action(s)	Australia
WP/6	9	Adoption of Eurocontrol Operating Procedures for AIS Dynamic Data Edition 2.1	Japan and New Zealand
WP/7		- <i>Withdrawn</i> -	

INFORMATION PAPERS

NUMBER	AGENDA	INFORMATION PAPERS	PRESENTED BY
IP/1	-	List of Working Papers (WPs) and Information Papers (IPs)	Secretariat
IP/2	10	Outcomes of APANPIRG/18 and the Review of the Report of APANPIRG/18 by ICAO Air Navigation Commission Working Group on Regional Plans	Secretariat
IP/3	4	Work Programme to Enable the Global Transition from AIS to AIM	Secretariat
IP/4	10	Regional Special Implementation Project	Secretariat
IP/5	8	Proposal for the Amendment of Annexes 4, 11 And 15, PANS-ABC, PANS-ATM and PANS-OPS	Secretariat
IP/6	10	The Static Data Procedures (SDP) in Japan	Japan

.....

**EXPECTED OUTPUTS OF THE AERONAUTICAL INFORMATION SERVICES-
AERONAUTICAL INFORMATION MANAGEMENT STUDY GROUP (AIS-AIMSG)**

D2-INF-AIM – Aeronautical Information Management

<i>ID</i>	<i>Expected output</i>	<i>Source</i>	<i>Final results</i>	<i>Completed</i>
1.	Global strategy/roadmap for the transition from AIS to AIM.	A36-WP/321	State letter/Guidance material	2008 (Draft)
2.	SARPs and guidance material related to the provision of a standard aeronautical information conceptual model and standard aeronautical information exchange model to enable the global exchange of data in digital format. Definition of a means to allow the further evolution of these models in a managed and supportable manner.	A36-WP/321	Amendments 36/37 to Annex 15 Amendments 56/57 to Annex 4 New manual and amendment Defined means to allow the further evolution of the models	2010/13 2010/13 2010/13 2010
3.	SARPs and guidance material related to an appropriate presentation of digital aeronautical information to the end user, including eAIP, electronic charts and use of GIS within the context of AIM.	A36-WP/321	Amendments 36/37 to Annex 15 Amendments 56/57 to Annex 4 Amendments to Doc 8126 Amendments to Doc 8697	2010/13 2010/13 2010/13 2010/13
4.	Guidance material and further development of SARPs related to the quality system to support AIM.	A36-WP/321	New AIM quality system manual Amendment 36 to Annex 15	2010 2010
5.	Review of SARPs and guidance material related to electronic terrain and obstacle data to determine if refinement of SARPs or additional guidance material is necessary.	EANPG Conc. 49/39	Amendment 36 to Annex 15 Amendment to Doc 9881	2010 2010
6.	Guidance and training material related to staffing and training for the transition from AIS to AIM.	A36-WP/321	New AIM training manual Amendment to Doc 8697	2010 2010
7.	Development of a proposed work plan to consider key legal and institutional issues raised during the Worldwide Symposium on Enabling the Net-Centric Information Environment (Montreal, 2 to 4 June 2008)	A36-WP/321	AN-WP	2009

.....

AIM CONGRESS

SINGAPORE – 2008

**FROM AIS TO AIM – THE
ICAO WORK PROGRAMME**

**Kyotaro Harano
RO/ATM, ICAO Bangkok Office**

Presentation Outline

- ⇒ **Evolution of requirements**
- ⇒ **Expected work programme outputs**
- ⇒ **Worldwide Symposium on Enabling the Net-Centric Information Environment**
- ⇒ **The way forward - Milestones**
- ⇒ **Conclusions**

Evolution of requirements

⇒ 11 th Air Navigation Conference

- Endorsed ATM operational concept
- AIS - one of the most valuable enabling services
- Recommendation 1/8
- Common aeronautical information models
- Electronic availability of aeronautical information and charts

⇒ Global AIS Congress

- Supported AN-Conf/11 Recommendation 1/8
- Developed high level view evolution AIS to AIM
- Ten recommendations to support that evolution

Evolution of requirements

⇒ **36th Session of the ICAO Assembly**

- Recognised need for ICAO work to support recommendations of the AIS Global Congress
- Together with need for coordination and transparency

⇒ **Consideration by the ICAO Air Navigation Commission**

- Work programme to enable transition from AIS to AIM
- Based on recommendations of the AIS Global Congress
- Effort provided for in the ICAO Business Plan
- New AIS to AIM Study Group

Expected outputs

⇒ **Global strategy/roadmap for the transition from AIS to AIM**

- **Guidance material document to plan, manage and facilitate the global transition from AIS to AIM**
- **Will recognize that not all States or regions can make the transition immediately to AIM**
- **Implementation will be evolutionary, based on regional needs**
- **To be supported by the Global Air Navigation Plan, regional plans and State implementation plans**

Expected outputs

- ⇒ **SARPs and guidance material to enable the global exchange of data in digital format**
 - Provision of a standard aeronautical information conceptual model and standard aeronautical information exchange model
 - Intended to be based on AICM/AIXM
 - Definition of a means to allow the further evolution of models in a managed and supportable manner
 - Annexes 4,15, guidance material: 2010 and 2013

Expected outputs

⇒ AIS-AIM Study Group role with respect to models:

- Review documentation on models to ensure global suitability
- Develop modalities for acquisition of the models and implementation process
- Advise on integration of AMXM, WXXM
- Develop a global mechanism for further evolution of technical specifications

Expected outputs

- ⇒ **SARPs and guidance material related to an appropriate presentation of digital aeronautical information to the end user**
 - **eAIP,**
 - **electronic charts**
 - **use of GIS within the context of AIM**
 - **Annexes 4,15, guidance material: 2010 and 2013**

Expected outputs

⇒ **Guidance material and further development of SARPs related to the quality system to support AIM**

- **AIM quality system manual**
- **Annex 15: amendment 2010**

⇒ **Electronic terrain and obstacle data**

- **Review and refinement of SARPs and guidance material**

Expected outputs

⇒ **Guidance and training material related to staffing and training for the transition from AIS to AIM**

- **It will be necessary to define the human resource activities necessary to realize the future AIM.**
- **Identification of the basic future personnel skills required and mechanisms for validating competency**
- **Supporting guidance and training material**

Expected outputs

- ⇒ **Development of a proposed work plan to consider key legal and institutional issues**
 - **Issues raised during the Worldwide Symposium on Enabling the Net-Centric Information Environment**
 - **Held in Montreal from 2- 4 June 2008**

Symposium issues

⇒ **State responsibility**

- **Sufficient flexibility under Chicago convention and Annexes for AIS to AIM transition**

⇒ **Cost recovery**

- **Conference on the Economics of Airports and Air Navigation Services (CEANS)**
- **15 to 20 September 2008**

⇒ **Liability, copyright & ownership**

- **To be addressed by AIS-AIMSG or ICAO legal bodies based on issues identified**

Main milestones (Phase1)

- ⇒ **Fall 2008: AIS-AIMSG first meeting**
- ⇒ **Early 2009: Global strategy/ “roadmap”**
- ⇒ **2010: 1st round of SARPs to be adopted**
 - **Standard aeronautical data models**
 - **Defined means for evolution of models**
 - **eAIP, electronic charts, quality system**
- ⇒ **2009-2011: Associated guidance material**

Main milestones (Phase2)

- ⇒ **2013: 2nd round of SARPs to be adopted**
 - Further development of 1st round SARPs
 - Associated guidance material
- ⇒ **Divisional meeting: 2013**
 - Endorsement of the
 - Net-centric concept
 - associated SARPs
 - MET to be incorporated
 - Phased implementation 2015-2019

Conclusions

- ⇒ **Information management is a key enabler of the future ATM**
- ⇒ **The goal for an ICAO work programme that supports the transition from AIS to AIM has been defined**
- ⇒ **Much work remains and the time scales are tight**

AITF/3
Appendix E to the Report

Number	Task	Status
1	Examine the most recent AIS survey and identify areas of highest concern	Done. The area of highest concern is general rather than specific. Some States have insufficient resources to fully meet the ICAO requirements, and as a consequence have a number of deficiencies that are enduring.
2	Discover shortest path to finalisation of WGS-84 implementation wherever that is not yet completed	Done. The shortest path to implementation of WGS84 is for States to have surveyed and then publish their primary civil international airport(s) critical data (runway and navigation aids). The survey itself can be contracted to suitably equipped engineering firms. Perhaps related to item 1. States are encouraged to obtain quotes for this task and present the findings to chiefs of administration. A draft letter has been prepared ready for adaptation to suit local requirements and protocols as in Attachment A to this Appendix.
3	Discover shortest path to finalisation of ICAO format implementation wherever that is not yet completed	Done. The shortest path to finalisation of ICAO format implementation is for States to engage expert document writers to reformat their old AIP. Perhaps related to item 1. States are encouraged to obtain quotes for this task and present the findings to chiefs of administration. A draft letter has been prepared ready for adaptation to suit local requirements and protocols as in Attachment B to this Appendix.
4	Discover shortest path to finalisation of Quality Systems (including training of AIS staff) implementation wherever that is not yet completed	Done. The shortest path to finalisation of Quality System (including training for AIS Staff) is for States to engage expert training organisations and quality system implementation organisations to reengineer the AIS. Perhaps related to item 1. States are encouraged to obtain quotes for this task and present the findings to chiefs of administration. A draft letter has been prepared ready for adaptation to suit local requirements and protocols as in Attachment C to this Appendix.

AITF/3
Appendix E to the Report

Number	Task	Status
5	Discover shortest path to finalisation of NOTAM/AIS automation wherever that is not yet completed	Done. The shortest path to finalisation of Quality System (including training for AIS staff) is for States to purchase equipment and implementation firms with demonstrated expertise in this domain. Perhaps related to item 1. States are encouraged to obtain quotes for this task and present the findings to chiefs of administration. A draft letter has been prepared ready for adaptation to suit local requirements and protocols as in Attachment D to this Appendix.
6	Implement a quality improvement system to track and demonstrate improvement in rate of non-adherence to AIRAC.	Pending: With agreement from AITF Chairman intends to invite IATA to score occurrences of non-AIRAC performances to Chairman for review and discussion at subsequent AITFs. Alternatively, this could be managed by ICAO Regional Office and/or transmitted up through the sub-group and/or APANPIRG. A draft letter has been prepared as in Attachment E to this Appendix.
7	Broaden the opportunity for Asia/Pacific AIS to conduct peer reviews on their activities	Done. The opportunity to adopt a peer review could be enhanced by demonstration of its effectiveness. Perhaps related to item 1. States are encouraged to obtain quotes for this task and present the findings to chiefs of administration. A draft letter has been prepared ready for adaptation to suit local requirements and protocols as in Attachment F to this Appendix.
8	Investigate and then replicate successful Eurocontrol KPIs and AIS checklist (as demonstrated to the 2002 Task Force)	Not yet commenced.

AITF/3
Appendix E to the Report

Number	Task	Status
9	Investigate opportunities for cooperative and collaborative approaches to AIS investments and functionalities	<p>Ongoing. Airservices Australia is seeking expressions of interest to the AIS Automation industry for replacement of its AIS database and related system. Airservices welcomes other States to initiate enquires relating to cooperative or collaborative investments opportunities. The project is Project Mercury and further information can be obtained at http://www.airservicesaustralia.com/tenders/eoi_aim/default.asp</p>
10	Monitor Implementation Tasks associated with Electronic Terrain and Obstacle Data (eTOD)	<p>Ongoing. Await deliberations from ICAO on revision to Annex 15.</p>
11	Monitor Implementation Tasks associated with Digital Aeronautical Charts	<p>Ongoing. Await deliberations from ICAO on revision to Annex 15.</p>

.....

To: *(Chief of Administration)*

From: *(Chief AIS)*

Date: *(date)*

Topic: Implementation of WGS-84 Survey

Context

The safety of our people, international airline, airports, staff and reputation are in jeopardy because *(country/State)* cannot provide the verified and reliable survey data imperative for the safe operation of civil aviation. The international body responsible for setting standards and recommended practices (ICAO) identified the need for all administrations to re-survey and translate the survey data for aerodromes and aviation infrastructure to the World Geodetic Standard 84 (WGS84) approximately 20 years past. Since then the domestic and international aviation community has from necessity been using on data of dubious reliability.

Purpose

The purpose of this paper is to seek your approval to obtain a quotation and subsequently engage a reliable, quality assured survey company to conduct a survey of all runways and navigation aids at the following aerodromes:

1. ...
2. ... etc

Rationale

The following reasons support the argument for conduct of survey:

1. Aircraft flight computers guide an aircraft to the runway end; consequently unverified data creates a safety, liability and reputation risk. (Note also appendix which contains the Introduction page of the applicable ICAO Annex relating to the management of Aeronautical Information – Annex 15).
2. WGS84 survey standard was adopted by the international aviation community to facilitate the safe and efficient operations of all airlines and peoples.

3. Cost of survey and publication of WGS84 data is disproportional to the liability costs were an accident to occur due to an aircraft landing away from the true runway position.
4. In the international arena (*country/State*) lacks credibility for failing to address long standing identified deficiencies in the field of providing reliable aeronautical information.

Further information

For addition information, please contact Chief AIS,

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1. INTRODUCTION

The object of the aeronautical information service is to ensure the flow of information/data necessary for the safety, regularity and efficiency of international air navigation. The role and importance of aeronautical information/data changed significantly with the implementation of area navigation (RNAV), required navigation performance (RNP) and airborne computer-based navigation systems. Corrupt or erroneous aeronautical information/data can potentially affect the safety of air navigation.

To satisfy the uniformity and consistency in the provision of aeronautical information/data that is required for the operational use by computer-based navigation systems, States shall, as far as practicable, avoid standards and procedures other than those established for international use.

These Standards and Recommended Practices are to be used in conjunction with the *Procedures for Air Navigation Services — ICAO Abbreviations and Codes* (PANS-ABC, Doc 8400).

It is recognized that Supplementary Procedures may be required in certain cases in order to meet particular requirements of the ICAO Regions.

Guidance material on the organization and operation of aeronautical information services is contained in the *Aeronautical Information Services Manual* (Doc 8126).

To: *(Chief of Administration)*

From: *(Chief AIS)*

Date: *(date)*

Subject: New ICAO format AIP

Context

The safety of our people, international airline, airports, staff and reputation are in jeopardy because *(country/State)* cannot provide the Aeronautical Information Publication (AIP) in an internationally consistent format. The international body responsible for setting standards and recommended practices (ICAO) identified the need for all administrations to publish their AIP in an internationally consistent format approximately 20 years past. Since then the domestic and international aviation community has from necessity been searching for meaning through a publication with different structure – a little like another language.

Purpose

The purpose of this paper is to seek your approval to obtain a quotation and subsequently engage a reliable, quality assured document writing company to conduct remaking of the AIP in internationally consistent format.

Rationale

The following reasons support the argument for conduct of the AIP remake:

5. Flight crews rely on the accuracy and consistency of information in the AIP. If they were to be searching in the wrong part of the AIP for critical information during the land stage of flight; then that would create a safety, liability and reputation risk. (Note also appendix which contains the Introduction page of the applicable ICAO Annex relating to the management of Aeronautical Information – Annex 15).
6. ICAO format AIP standard was adopted by the international aviation community to facilitate the safe and efficient operations of all airlines and peoples.

7. Cost of survey and publication of ICAO format AIP is disproportional to the liability costs were an accident to occur due to an aircraft incident were the pilots were unnecessarily distracted by not finding critical information in the AIP.
8. In the international arena (*country/State*) lacks credibility for failing to address long standing identified deficiencies in the field of providing reliable aeronautical information, in internationally consistent format.

Further information

For addition information please contact Chief AIS,

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1. INTRODUCTION

The object of the aeronautical information service is to ensure the flow of information/data necessary for the safety, regularity and efficiency of international air navigation. The role and importance of aeronautical information/data changed significantly with the implementation of area navigation (RNAV), required navigation performance (RNP) and airborne computer-based navigation systems. Corrupt or erroneous aeronautical information/data can potentially affect the safety of air navigation.

To satisfy the uniformity and consistency in the provision of aeronautical information/data that is required for the operational use by computer-based navigation systems, States shall, as far as practicable, avoid standards and procedures other than those established for international use.

These Standards and Recommended Practices are to be used in conjunction with the *Procedures for Air Navigation Services — ICAO Abbreviations and Codes* (PANS-ABC, Doc 8400).

It is recognized that Supplementary Procedures may be required in certain cases in order to meet particular requirements of the ICAO Regions.

Guidance material on the organization and operation of aeronautical information services is contained in the *Aeronautical Information Services Manual* (Doc 8126).

To: *(Chief of Administration)*

From: *(Chief AIS)*

Date: *(date)*

Subject: AIS Training and Quality System

Context

The safety of our people, international airline, airports, staff and reputation are in jeopardy because *(country/State)* cannot provide Aeronautical Information Service that has a quality system and/or adequately trained AIS staff. The international body responsible for setting standards and recommended practices (ICAO) identified the need for all administrations to assemble and operate AIS with trained staff and a quality system. That level of rigour is not provided; consequently a minimum level of confidence in the State data cannot be assured.

Purpose

The purpose of this paper is to seek your approval to obtain a quotation and subsequently engage a reliable, quality assured AIS training and quality systems implementation firm to reassemble the AIS to an internationally consistent standard.

Rationale

The following reasons support the argument for conduct of the AIS training and quality system implementation:

9. Flight crews rely on the accuracy and consistency of information in the AIP. If they were to use dubious data for critical information during the land stage of flight; then that would create a safety, liability and reputation risk. (Note also appendix which contains the Introduction page of the applicable ICAO Annex relating to the management of Aeronautical Information – Annex 15).
10. AIS Training and Quality System were adopted by the international aviation community to facilitate the safe and efficient operations of all airlines and peoples.

11. Cost of training and quality system implementation is disproportional to the liability costs were an accident to occur due to an aircraft incident were the pilots were misled by dubious aeronautical data.
12. In the international arena (*country/State*) lacks credibility for failing to address long standing identified deficiencies in the field of providing reliable aeronautical information, in internationally consistent format.

Further information

For addition information please contact Chief AIS,

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1. INTRODUCTION

The object of the aeronautical information service is to ensure the flow of information/data necessary for the safety, regularity and efficiency of international air navigation. The role and importance of aeronautical information/data changed significantly with the implementation of area navigation (RNAV), required navigation performance (RNP) and airborne computer-based navigation systems. Corrupt or erroneous aeronautical information/data can potentially affect the safety of air navigation.

To satisfy the uniformity and consistency in the provision of aeronautical information/data that is required for the operational use by computer-based navigation systems, States shall, as far as practicable, avoid standards and procedures other than those established for international use.

These Standards and Recommended Practices are to be used in conjunction with the *Procedures for Air Navigation Services — ICAO Abbreviations and Codes* (PANS-ABC, Doc 8400).

It is recognized that Supplementary Procedures may be required in certain cases in order to meet particular requirements of the ICAO Regions.

Guidance material on the organization and operation of aeronautical information services is contained in the *Aeronautical Information Services Manual* (Doc 8126).

To: *(Chief of Administration)*

From: *(Chief AIS)*

Date: *(date)*

Subject: AIS NOTAM Automation

Context

The safety of our people, international airline, airports, staff and reputation are in jeopardy because *(country/State)* cannot provide an Automated AIS NOTAM service. The international body responsible for setting standards and recommended practices (ICAO) identified the need for all administrations to automate NOTAM origination. That level of sophistication is not provided; consequently NOTAM are distributed manually, inevitably with more frequent errors in format and content.

Purpose

The purpose of this paper is to seek your approval to obtain a quotation and subsequently engage a reliable, quality assured AIS NOTAM Automation supplier.

Rationale

The following reasons support the argument for conduct of the AIS NOTAM Automation:

13. Flight crews rely on the accuracy and consistency of information in the NOTAM service. If they were to use dubious data for critical information during the land stage of flight; then that would create a safety, liability and reputation risk. (Note also appendix which contains the Introduction page of the applicable ICAO Annex relating to the management of Aeronautical Information – Annex 15).
14. A requirement for AIS NOTAM Automation was adopted by the international aviation community to facilitate the safe and efficient operations of all airlines and peoples.

15. Cost of AIS NOTAM Automation systems and implementation is disproportional to the liability costs, were an accident to occur due to an aircraft incident where the pilots were misled by dubious aeronautical data.
16. In the international arena (*country/State*) lacks credibility for failing to address long standing identified deficiencies in the field of providing reliable aeronautical information, in internationally consistent format.

Further information

For addition information please contact Chief AIS,

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1. INTRODUCTION

The object of the aeronautical information service is to ensure the flow of information/data necessary for the safety, regularity and efficiency of international air navigation. The role and importance of aeronautical information/data changed significantly with the implementation of area navigation (RNAV), required navigation performance (RNP) and airborne computer-based navigation systems. Corrupt or erroneous aeronautical information/data can potentially affect the safety of air navigation.

To satisfy the uniformity and consistency in the provision of aeronautical information/data that is required for the operational use by computer-based navigation systems, States shall, as far as practicable, avoid standards and procedures other than those established for international use.

These Standards and Recommended Practices are to be used in conjunction with the *Procedures for Air Navigation Services — ICAO Abbreviations and Codes* (PANS-ABC, Doc 8400).

It is recognized that Supplementary Procedures may be required in certain cases in order to meet particular requirements of the ICAO Regions.

Guidance material on the organization and operation of aeronautical information services is contained in the *Aeronautical Information Services Manual* (Doc 8126).

To: *(Chief of IATA Asia/Pacific)*

From: *(Chairman AITF)*

Date: *(date)*

Subject: Adherence to AIRAC notification – a survey to contribute to a continuous improvement strategy

Context

The safety of our passengers, airlines, airports, staff and reputation are diminished when organisation turbulence is generated when a State AIS fails to apply the relevant provisions of Annex 15 and makes implementation of revised or new aeronautical information without adequate notification period (AIRAC). In this regard the AIS community has been attempting to improve their performance. More specific and tailored efforts may emerge if we had more detailed information of those occasions when poor performance is evident.

Purpose

The purpose of this paper is to seek your approval to engage your members in the routine collection of data related to non-AIRAC notification; from which the principles of continuous improvement through examination of fail points can be initiated.

Rationale

The following reasons support the argument for conduct of the survey:

17. Flight crews rely on the accuracy and consistency of information in the NOTAM service. If they were to use dubious data for critical information during the land stage of flight; then that would create a safety, liability and reputation risk. Late notification of changes is an embuggerance to the efficient operation of airlines. (Note also appendix which contains the Introduction page of the applicable ICAO Annex relating to the management of Aeronautical Information – Annex 15).
18. A requirement for adherence to ICAO standards and recommended practices was adopted by the international aviation community to facilitate the safe and efficient operations of all airlines and peoples.

AITF/3
Appendix E to the Report

19. Cost/effort of survey is disproportional to the liability costs, were an accident to occur due to an aircraft incident where the pilots were misled by dubious aeronautical data.
20. In the international arena some States lack credibility for failing to address long standing identified deficiencies in the field of providing reliable aeronautical information, in internationally consistent format.

Further information

For addition information please contact Chair AIS ICAO Asia/Pacific Task Force,

Sample Database Structure:

	Example data
Name of State	Australia
Form of Notification	AIP, AIP SUP, NOTAM
Number of days late	Number of days prior to implementation minus the minimum AIRAC 28 days e.g. 12 days notice provided minus 28 equals: -16
Topic	Waypoint, air route, airspace, military activity, aerodrome facilities, navigation facilities, other (specify)
Effect	Minor inconvenience, Major rescheduling of aircraft and/or crew
Attachments	Provide sufficient detail that the late material can be examined.

ATTACHMENT F

To: *(Chief of Administration)*

From: *(Chief AIS)*

Date: *(date)*

Subject: AIS – an invitation for peer review

Context

The safety of our people, international airline, airports, staff and reputation diminished because *(country/State)* cannot demonstrate adherence to the relevant international standards. Application of the relevant standards is a requirement for continuing membership of the international body responsible for setting standards and recommended practices (ICAO).

Purpose

The purpose of this paper is to seek your approval to obtain a quotation from one of the recognised best-practice AIS States from within the region and subsequently to receive a hygiene test of our readiness for ICAO audit and/or identification of deficiencies & recommendations for remedy.

Rationale

The following reasons support the argument for conduct of the AIS peer review:

21. Flight crews rely on the accuracy and consistency of information in the NOTAM service. If they were to use dubious data for critical information during the land stage of flight; then that would create a safety, liability and reputation risk. (Note also appendix which contains the Introduction page of the applicable ICAO Annex relating to the management of Aeronautical Information – Annex 15).
22. A requirement for adherence to ICAO standards and recommended practices was adopted by the international aviation community to facilitate the safe and efficient operations of all airlines and peoples.
23. Cost of peer review is disproportional to the liability costs, were an accident to occur due to an aircraft incident where the pilots were misled by dubious aeronautical data.

24. In the international arena (*country/State*) lacks credibility for failing to address long standing identified deficiencies in the field of providing reliable aeronautical information, in internationally consistent format.

Further information

For addition information please contact Chief AIS,

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1. INTRODUCTION

The object of the aeronautical information service is to ensure the flow of information/data necessary for the safety, regularity and efficiency of international air navigation. The role and importance of aeronautical information/data changed significantly with the implementation of area navigation (RNAV), required navigation performance (RNP) and airborne computer-based navigation systems. Corrupt or erroneous aeronautical information/data can potentially affect the safety of air navigation.

To satisfy the uniformity and consistency in the provision of aeronautical information/data that is required for the operational use by computer-based navigation systems, States shall, as far as practicable, avoid standards and procedures other than those established for international use.

These Standards and Recommended Practices are to be used in conjunction with the *Procedures for Air Navigation Services — ICAO Abbreviations and Codes* (PANS-ABC, Doc 8400).

It is recognized that Supplementary Procedures may be required in certain cases in order to meet particular requirements of the ICAO Regions.

Guidance material on the organization and operation of aeronautical information services is contained in the *Aeronautical Information Services Manual* (Doc 8126).

Electronic Terrain and Obstacle Data

Ken Reid
Head of AIM Division

Introduction

- Background;
- TOD WG;
- Research;
- Proposals:
 - Area 1;
 - Area 2;
 - Area 3;
 - Area 4.
- Summary of Areas;
- Status;
- Guidance Material;
- Awareness;
- Training;
- Way forward;
- Conclusions.

Background

- ICAO introduced the need for a State to make available digital datasets of electronic Terrain and Obstacle Data (eTOD):
 - Amendment 33 to Annex 15 – Chapter 10.
- Caused major concern:
 - Business case for data;
 - Cost for collection and processing;
 - Availability of necessary competences in organisations.
- Most significant concern is cost:
 - Initial estimate for Europe exceeded €1 billion.

TOD WG₍₁₎

- At request of stakeholders, EUROCONTROL formed the TOD Working Group (WG).
- The group comprises:
 - EUROCONTROL member States;
 - Non-EUROCONTROL States;
 - Industry.
- It is a multi-disciplinary working group:
 - AIS/AIM, Procedure Design, Survey, etc.
 - Has met 6 times since Dec 06

TOD WG₍₂₎

- The TOD WG has terms of reference to:
 - establish a common understanding of the intentions of Annex 15;
 - promote awareness for the implementation of eTOD;
 - specify the responsibilities for the bodies involved;
 - guidance material for eTOD implementation;
 - develop harmonised approaches to copyright, liability and intellectual property, etc.;
 - Introduce regulation to support data provision;
 - facilitate and coordinate eTOD implementation;
 - monitor the implementation progress within Europe;
 - Promote the means for global harmonisation.

TOD WG₍₃₎

- The TOD WG is also required to:
 - Submit material created under the project to ICAO and support its promotion on a world-wide basis.
- Make all papers/proposals etc available globally.

Recap of requirements

Terrain - Areas 1 & 2

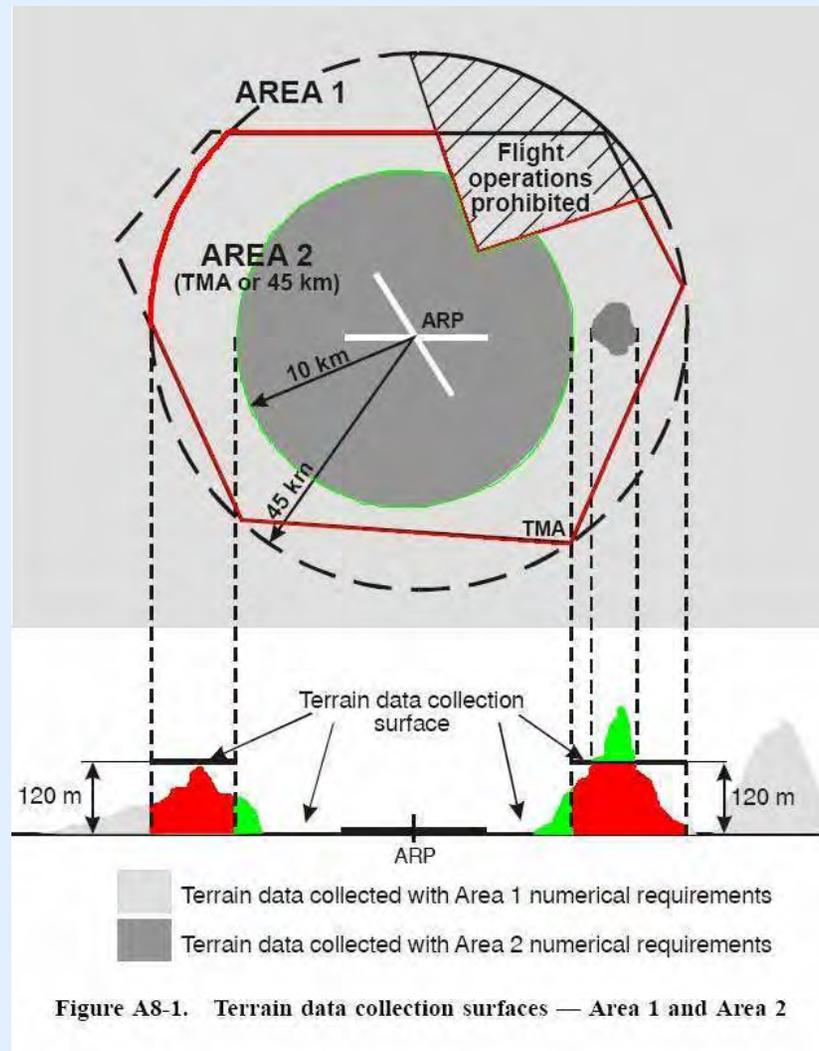
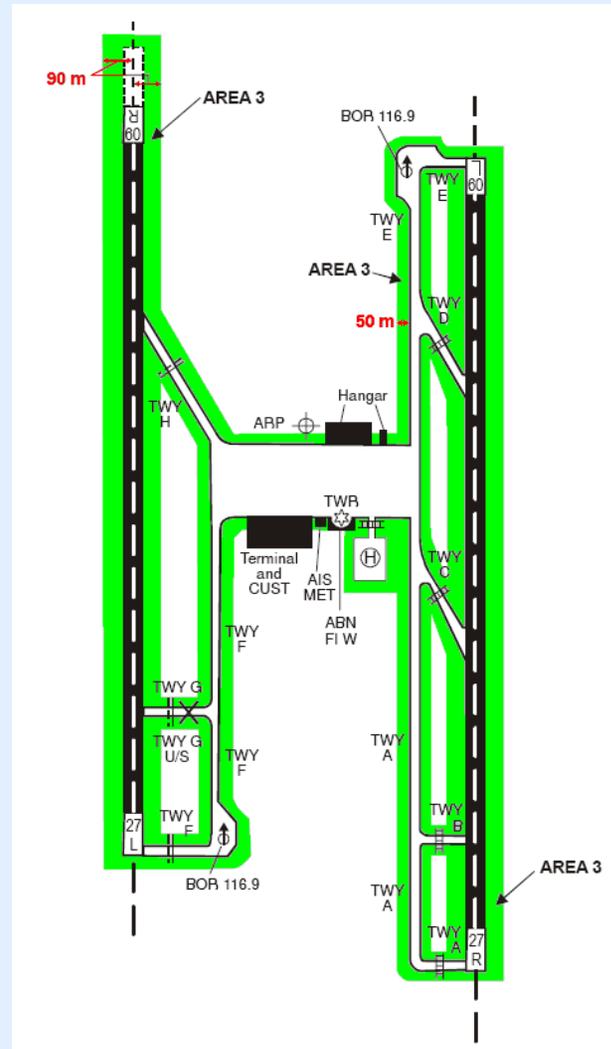
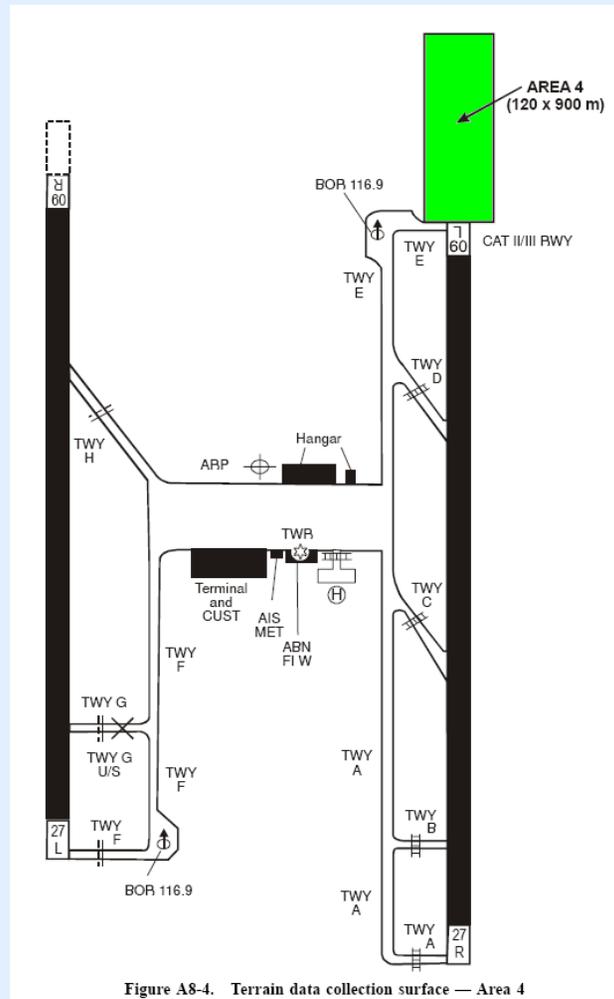


Figure A8-1. Terrain data collection surfaces — Area 1 and Area 2

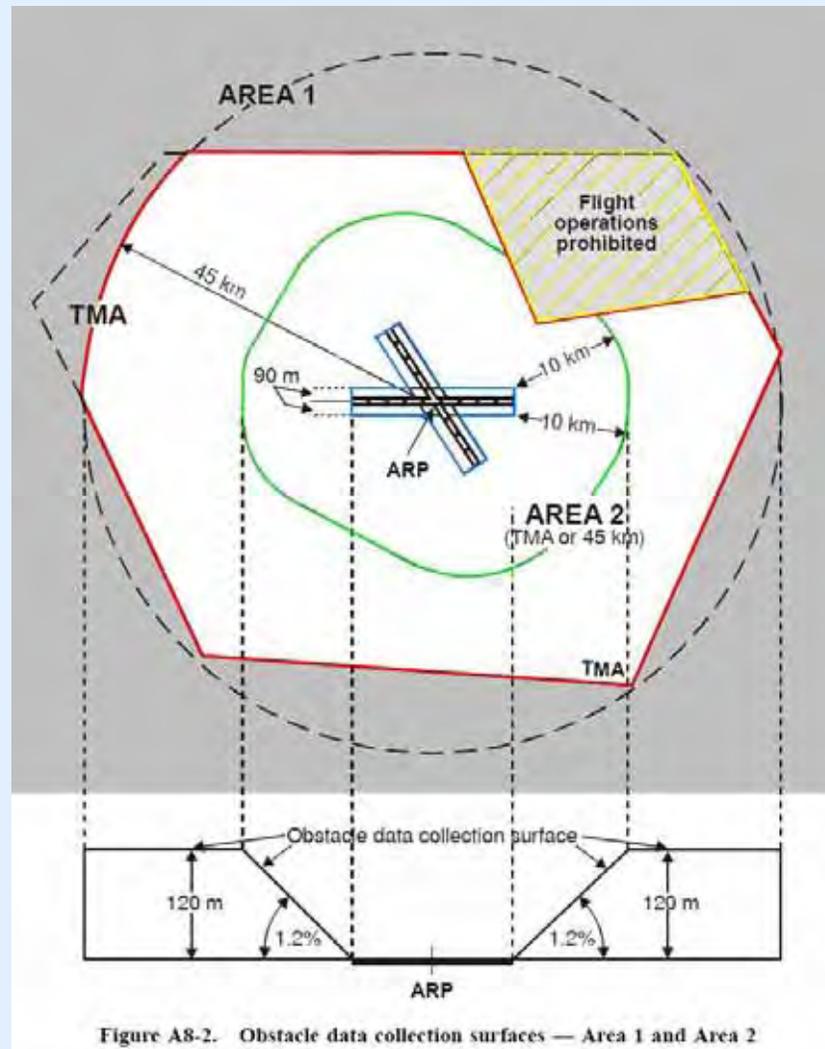
Terrain - Area 3



Terrain - Area 4



Obstacles - Areas 1 & 2



Obstacles - Areas 3 & 4

- Area 3 is the same as that defined for terrain.
- There are no obstacle collection requirements for Area 4.

Terrain Data Numerical Requirements

	Area 1	Area 2	Area 3	Area 4
Post spacing	3 arc seconds (approx. 90m)	1 arc second (approx. 30m)	0.6 arc seconds (approx. 20m)	0.3 arc seconds (approx. 9m)
Vertical accuracy	30m	3m	0.5m	1m
Vertical resolution	1m	0.1m	0.01m	0.1m
Horizontal accuracy	50m	5m	0.5m	2.5m
Confidence level (1σ)	90%	90%	90%	90%
Data classification	Routine	Essential	Essential	Essential
Integrity level	1×10^{-3}	1×10^{-5}	1×10^{-5}	1×10^{-5}
Maintenance period	As required	As required	As required	As required

Obstacle Data Numerical Requirements

	Area 1	Area 2	Area 3
Vertical accuracy	30m	3m	0.5m
Vertical resolution	1m	0.1m	0.01m
Horizontal accuracy	50m	5m	0.5m
Confidence level (1σ)	90%	90%	90%
Data classification Integrity level	Routine 1×10^{-3}	Essential 1×10^{-5}	Essential 1×10^{-5}
Maintenance period	As required	As required	As required

Research

- Research has been undertaken to determine the applicability of the four Areas.
- This has been conducted through:
 - User consultation;
 - Requirements analysis:
 - ICAO;
 - JAA (European Joint Aviation Authorities);
 - EUROCAE / RTCA (Industry Standards Organisations).
- Problems have been encountered in finding users for the data:
 - Everybody appears happy with what they have today;
 - But, new applications may give rise to clearly defined & justified user requirements:
 - But, not yet available.

Proposals

- Based on the research conducted, the four Areas have been analysed and proposals made for implementation.
- Look to meet the intentions of the ICAO SARPS:
 - Driven by validated operational needs;
 - Requirements adapted to meet clear business cases;
 - Consistent with existing safety cases.

Area 1

- The current SARPS were found to be sound.
- However, States asked:
 - That the accuracy be returned to its pre-Amendment 33 value of $\pm 3\text{m}$.
 - For harmonisation with their military obstacle requirements, typically 60m height (AGL).
- It is proposed to submit both for inclusion in Annex 15, as Recommendations.

Area 2₍₁₎

- Area 2 is considered to be the most challenging in terms of the cost and data acquisition:
 - No justification was found during the requirements analysis for the 360° and 45 km radius around the ARP;
 - Or Heliport.
- The SARPS today are considered to be excessive
- With 1 exception in Europe, States have requested that they be reduced to cover an area that is:
 - Affordable;
 - Manageable;
 - Practicable;
 - Supported by a business case.
- A reduced area is therefore proposed which meets the defined operational needs of:
 - Annexes 4, 14 and PANS-OPS.

Area 2₍₂₎

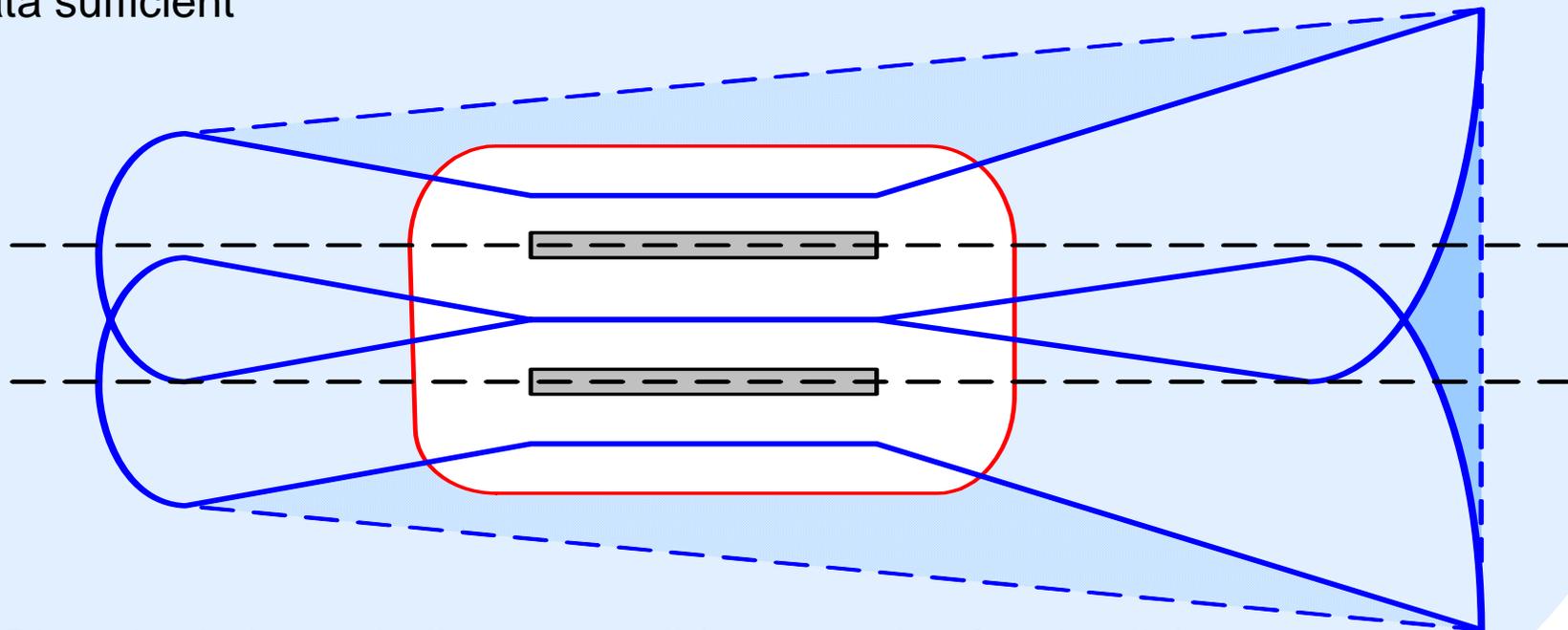
- Two horizontal limits are applied:
 - Longitudinal:
 - Extend along the procedures until the Area 1 dataset encompasses all obstacles that penetrate the surface.
 - Lateral:
 - To bound the defined procedures.
- The Visual Manoeuvring (Circling) Area must be included.
- Ensures that the data provision is tailored to suit the specific aerodrome and its surrounding environment.
 - Note: There are examples where Chapter 10 requirements are insufficient to meet operational needs

Area 2₍₃₎

- Terrain is captured for this area.
- Obstacle capture is determined on the basis of the procedures permitted:
 - Precision Approach:
 - All obstacles that penetrate the surface and that meet or exceed a State determined minimum height.
 - Non-Precision Approach:
 - All obstacles that meet or exceed a State determined minimum height.
- In both cases, excluded obstacles that are below the State determined minimum height should be included in the terrain model to provide a digital surface model.

Graphical depiction Area 2

- Lateral extent limited by containment surfaces
- Visual Manoeuvring (circling) Area, plus
- Area enclosing State published instrument procedures to point where Area 1 data sufficient



- Blue shaded area indicates possible expansion for simplicity that a State may wish to consider

Area 3

- Research for this Area has concluded that, without an AMDB to support it, the data is out of context and, therefore, serves no operational purpose.
- The original RTCA / EUROCAE text referred to this Area as:
 - "Supplemental terrain requirements for aerodrome mapping".
- It is, therefore, proposed that this Area be made a Recommendation only, but:
 - Expanded in scope to encompass all territory within the aerodrome fence to:
 - Increase the applications that may use it and create economies of scale.

Area 4

- Area 4 is intended to provide a digital representation of the Precision Approach Terrain Chart.
- This portrays terrain and obstacles in the precision approach area.
- It is, therefore, proposed that an obstacle dataset is provided for Area 4.
- It is also proposed that the size is aligned:
 - The size of PATC is increased in some circumstances.

Proposals Conclusions

- In conclusion:
 - Areas 1 and 4 are considered to meet operational needs but may be enhanced with recommendations;
 - Area 2 may be significantly reduced in scope whilst still meeting operational needs:
 - Major cost reduction.
 - No justification may be found for Area 3 as a standard:
 - Should be a recommendation only, to be provided where it is justified by existence of an AMDB.
- Ensures that the provision of TOD is made against a sound safety and business case.

Status

- These proposals are currently under review by the TOD WG and EUROCONTROL's Aeronautical Information Team.
- If approved, will be presented to the EUROCONTROL Stakeholder Consultation Group for endorsement.
- Will then be provided to ICAO for consideration:
 - Amendment 36 to ICAO Annex 15 circa 2010?

Guidance Material₍₁₎

- A comprehensive Guidance Manual, the eTOD Manual, is being developed.
- Will provide guidance to cover the complete implementation of eTOD:
 - Project Planning;
 - Business Case;
 - Technical Implementation;
 - Institutional Issues;
 - ISO 19100:
 - Profiling.
 - Cross-border harmonisation

Guidance Material₍₂₎

- Once complete, the eTOD Manual will be offered to ICAO for possible global adoption:
 - Replacement for Draft ICAO Doc 9881.

Awareness₍₁₎

- One major issue that has been reported within Europe is a lack of awareness of eTOD.
- Two levels need to be addressed:
 - High-level Management:
 - MoT, CAA etc.
 - Middle Management:
 - Implementation Managers / Regulators.
- The former will be addressed through the EUROCONTROL meetings:
 - Provisional Council.

Awareness₍₂₎

- Middle Management will be addressed through one or more workshops.
 - First (provisionally) planned for November 2008
- Awareness workshop content will include:
 - Legal responsibility and regulatory framework;
 - Liabilities;
 - Other institutional issues;
 - Costs and cost recovery;
 - Implementation planning;
 - Timescales.

Training₍₁₎

- A series of training workshops are planned to educate those performing the implementation.
 - To be added to the IANS Syllabus
- Will be appropriate to all stages of implementation process:
 - From very beginning, through to production of eTOD datasets.

Training₍₂₎

- The content will include:
 - Implementation planning;
 - Institutional issues;
 - Survey methodologies;
 - Cross-border harmonisation;
 - Data collection;
 - Data management;
 - Data storage;
 - Data exchange;
 - Data validation and verification.
 - Cost recovery mechanisms.

Training₍₃₎

- Other means to strengthen training workshops and reach a wider audience:
 - Video on demand;
 - Translation of material.
- Computer-based Training could be developed based on the training modules:
 - Dependent on adequate funding.

Way Forward

- The TOD WG believes that it has, in the main, resolved the technical issues.
- Emphasis is now shifting to the development of the guidance material and to institutional issues.
- The eTOD Manual will evolve over time and should be complete in the first half of 2009.
- Awareness and training will be provided:
 - Series of workshops.

Conclusions

- Europe concludes that the current SARPS are unjustifiable against a business case.
- Alternative ways forward have been found which look to achieve the same intent but in a more practicable and affordable manner.
- Awareness and training material will be created.
- An extensive guidance manual will also be developed and offered to ICAO.

**AERONAUTICAL INFORMATION SERVICES (AIS) SEMINAR/WORKSHOP
SPECIAL IMPLEMENTATION PROJECT FOR THE ASIA/PACIFIC REGION**

SUMMARY

Project: Conduct combined workshop & seminar for States in the Asia/Pacific Region to address issues related to aeronautical information services (AIS) automation and electronic terrain and obstacle data (eTOD) implementation.

Objective: To ensure that all concerned States of the Asia/Pacific Region have up-to-date information enabling set up of proper mechanisms to ensure the improvement of AIS capability towards automation and to demonstrate to States methodologies to draw up an action plan with a view to meeting the implementation of eTOD timeline of November 2008 as required by Annex 15- *Aeronautical Information Services*.

Strategic Objectives: A.7 and D.1

Performance measurement: Widespread participation of Asia/Pacific States at the workshop/seminar and provision of an information package to participants demonstrating, *inter alia*, methodologies to prepare action plans for eTOD implementation.

1. NEED FOR THE PROJECT

1.1 Planning for the improvement of AIS automation and implementation of eTOD is being carried out within the framework of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) AIS Implementation Task Force, which was reactivated by APANPIRG/14 (August 2003, Bangkok) under Conclusion 14/8. Progress has been slow regarding planning for the improvement of AIS capability and the implementation of eTOD in the Asia/Pacific Region, in part because of a lack of full understanding of AIS automation and eTOD provisions.

1.2 With a view to drawing the attention of States concerned to their responsibilities and requirements, APANPIRG/18 formulated Conclusions 18/12 - *Assistance to States to improve AIS capability* and 18/15 - *Strategies to implement eTOD*. ICAO has been invited to explore the possibility of assisting States in Asia/Pacific Region through a special implementation project to train personnel involved with the improvement of the AIS automation and the implementation of eTOD for the regional implementation in November 2008.

2. SCOPE OF THE PROJECT

2.1 It is proposed that during the latter half of 2008, a two day visit be paid to a State identified as needing assistance with AIS matters, immediately followed by the seminar/workshop conducted in the State

2.2 The objective of the visit would be to identify problem areas and to ensure that the identified State in the Asia/Pacific Region has set up a proper mechanism to ensure the improvement of AIS automation and the implementation of eTOD in November 2008. The objective of the seminar/workshop would be to assist States generally to better understand automation and eTOD provisions and have the ability to draw up an action plan with a view to meeting the implementation timelines that have been set.

3. **DURATION OF THE PROJECT**

3.1 The five-day project would begin not later than the third quarter of 2008.

AITF/3
Appendix H to the Report

AITF TASK LIST

(Last updated ~~February 2007~~ June 2008)

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	Status	REMARKS
1.	Consider a standard model for the electronic exchange of aeronautical information.	Immediate	Task Force <u>ICAO</u>	<u>Ongoing</u>	<p>APANPIRG/17 (August 2006) supported conclusions and recommendations of the AIS Congress (June 2006, Madrid) and adopted conclusion 17/14 to promote the development and implementation of data system that provides timely, accurate and high integrity data.</p> <p>ICAO HQ has advised that a <u>A</u> new Study Group will be <u>was</u> established – AIS-AIMSG for this purpose.</p>
2.	Draft an improvement plan to address the deficiencies in the AIS field	Immediate	Work Group, Australia	<u>Completed</u>	<u>AITF/3</u>
3.	Investigate the differences between EUROCONTROL OPADD (Operating Procedures for AIS Dynamic Data) and the current Asia/Pacific OPADD.	Ongoing	Work Group, Japan/New Zealand	<u>Ongoing</u>	
4.	Endorse the work of the AIS Operations Subgroup of Eurocontrol and adopt the Second Edition of the Asia/Pacific OPADD.	AITF/3	Task Force	<u>Completed</u>	Regional differences are an obstacle to global harmonisation and should be discouraged.

AITF/3
Appendix H to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	Status	REMARKS
5.	Reinforce to States the critical safety nature of AIS and adherence to Annex 15 provisions, in particular those relating to AIRAC, as well as the need to ensure accurate and timely publication of AIS data.	Immediate	ICAO, All States, <u>Chairman</u>	<u>Ongoing</u>	APANPIRG/17 (August 2006) agreed that the text of Conclusion 14/9 continued to adequately describe the long standing regional concerns in this respect and should be further promulgated. The meeting elected to adopt Conclusion 17/17, incorporating and superseding Conclusion 14/9.
6. —	Consider how best to relay via APANPIRG to the Conference of the Director Generals of Civil Aviation (DGCA) of the importance of adhering to the AIRAC cycles.	44th meeting of the Conference of the DGCA (October 2007)	Chairman	<u>Completed</u>	Completed
7.	<u>Provide assistance to hold AIS automation and eTOD seminar/workshop in 2009</u>	<u>February/March/ April 2009</u>	<u>Task Force, Japan, Chairman</u>		<u>Requested at AITF/3</u>
8.	<u>Prepare a working paper to examine effective AIRAC time in Asia and Pacific Region</u>	<u>AITF/4</u>	<u>Republic of Korea</u>		<u>Raised at AITF/3</u>
9.	<u>Prepare a working paper to examine AIRAC notification</u>	<u>AITF/4</u>	<u>India</u>		<u>Raised at AITF/3</u>

.....