

INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA AND PACIFIC OFFICE



**REPORT OF THE THIRTEENTH MEETING OF THE SOUTH-EAST ASIA
ATS CO-ORDINATION GROUP (SEACG/13)**

Bangkok, Thailand, 16 – 19 May 2006

The views expressed in this Report should be taken as those of the
Meeting and not of the Organization

Approved by the Meeting
And Published by ICAO Asia and Pacific Office

TABLE OF CONTENTS

PART I - HISTORY OF THE MEETING

	Page
Introduction	i
Attendance	i
Opening of the Meeting	i
Officers and Secretariat	ii
Documentation and Working Language	ii

PART II - REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Provisional Agenda.....	1
Agenda Item 2: Review status of recommended actions as agreed at the SEACG/12 Meeting	1
Agenda Item 3: Outcomes of APANPIRG/16	5
Agenda Item 4: Review current operations across South-East Asia and identify problem areas	6
Agenda Item 5: Implementation of the new CNS/ATM systems in the Region	11
Agenda Item 6: ATS route development	13
Agenda Item 7: Development of State Contingency Plans.....	15
Agenda Item 8: Civil Military Coordination.....	15
Agenda Item 9: Develop a coordinated plan for implementation of actions agreed by the meeting	15
Agenda Item 10: Any other business	16
Agenda Item 11: Date and venue for the SEACG/14 meeting	20

SEACG/13
Table of Contents

APPENDICES

Appendix A	List of Participants	A-1
Appendix B	List of the Working Papers and Information Papers	B-1
Appendix C	Parallel Tracks Proposed by IATA	C-1
Appendix D	Action Plan for SMA Establishment by MAAR	D-1
Appendix E	Radar Coverage/Service Chart Developed by SEACG/10.....	E-1
Appendix F	Status of Application of Radar Handover Procedures.....	F-1
Appendix G	Action Plan.....	G-1
Appendix H	List of Deficiencies Updated by SEACG/13.....	H-1
Appendix I	APANPIRG Conclusions and Decision Relating to ATS	I-1
Appendix J	Survey Result of the State Contingency Plan.....	J-1

PART I – HISTORY OF THE MEETING

1. Introduction

1.1 The Thirteenth Meeting of the South-East Asia ATS Co-ordination Group (SEACG/13) was held at the Kotaite Wing of the ICAO Asia and Pacific Office, Bangkok, Thailand from 16 to 19 May 2006.

1.2 The objectives of the meeting were to discuss problems affecting the provision of ATS in the area and to develop a co-ordinated plan for implementation of actions agreed, including reviewing the implementation of the new ICAO CNS/ATM systems (paragraph 1.1.2 of the Report of SEACG/10). Further, the main objective of SEACG was not for long-range planning but to identify and solve current problems or deficiencies in ATS by means of an action plan with time lines (paragraph 6.1.5 of the Report of SEACG/10).

2. Attendance

2.1 The meeting was attended by 35 participants from Brunei Darussalam, Cambodia, China, Hong Kong China, Japan, Lao PDR, Philippines, Singapore, Thailand, Viet Nam, IATA and IFALPA. A list of participants is at **Appendix A**.

3. Opening of the Meeting

3.1 Mr. Kyotaro Harano, on behalf of Mr. Lalit B. Shah, Regional Director of ICAO Asia and Pacific Office, opened SEACG/13 and welcomed the participants to the meeting. He said that SEACG discusses a wide range of matters of ATS, and SEACG/12, which was held last year in conjunction with the ATS Route Network Review Task Force, made substantial progress. Particularly, States had been strongly encouraged to give priority to implementing ADS and CPDLC. In this regard, SEACG/12 identified the need of Central Reporting Agency (CRA) and Safety Monitoring Agency (SMA). For the CRA, Japan had generously offered to provide the service for the South China Sea airspace, and for the SMA, AEROTHAI was progressing the preparation to provide the service in this region. Although ATS providers spent the past few years in implementing many major airspace projects bringing substantial benefits to operators as well as to the environment, there was still a need for States to improve their air traffic services. The meeting was expected to address the matters at this meeting. Mr. Harano stressed that SEACG was the meeting of all the participants and hoped the participants were actively involved in the discussion. He wished successful outcomes.

3.2 The Secretariat highlighted that the opening of the new Ho Chi Minh ACC in Ho Chi Minh, Viet Nam would occur during the meeting on 18th May 2006. At the invitation of Viet Nam, two officers from the Regional Office had recently visited the new facilities, noting the completely new operational and administrative buildings and Thales Eurocat ATM equipment installed, along with all supporting equipment including power supplies, equipment rooms and software research and development facilities. The Regional Office commended the government of Viet Nam for the substantial investment that had been made in civil aviation infrastructure and congratulated CAAV and VATM for the good work that had been completed, enabling this complex project to be brought into operation.

4. **Officers and Secretariat**

4.1 Mr. Tinnagorn Choowong, Air Traffic Control Manager, Aeronautical Radio of Thailand Ltd. served as Chairperson of the meeting.

4.2 Mr. Kyotaro Harano, Regional Officer Air Traffic Management (ATM), ICAO Asia and Pacific Office acted as the Secretary for the meeting. He was assisted by Mr. Li Peng, Regional Officer CNS and Mr. Polawat Chootai, Regional Officer ATM.

5. **Documentation and Working Language**

5.1 The working language of the meeting and the language for all documentation was in English. Twenty Working Papers (one WP withdrawn), twelve Information Papers (one IP withdrawn) and two flimsies were presented for consideration by the meeting. A list of papers is included at **Appendix B** to the Report.

PART II – REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Provisional Agenda

1.1 To support the activities of the group, Thailand generously nominated Mr. Tinnagorn Choowong, Air Traffic Control Manager, Aeronautical Radio of Thailand Ltd (AEROTHAI) to act in the role of Chairperson. Cambodia and Japan seconded the nomination by Thailand. The meeting unanimously elected Mr. Choowong as Chairperson of the group.

1.2 The meeting adopted the following agenda as the Agenda for the meeting:

- Agenda Item 1: Adoption of Provisional Agenda
- Agenda Item 2: Review Status of Recommended Actions as Agreed at the SEACG/12 Meeting
- Agenda Item 3: Outcomes of APANPIRG/16
- Agenda Item 4: Review Current Operations across South-East Asia and Identify Problem Areas
- Agenda Item 5: Implementation of the New CNS/ATM Systems in the Region
- Agenda Item 6: ATS Route Development
- Agenda Item 7: Development of State Contingency Plans
- Agenda Item 8: Civil Military Coordination
- Agenda Item 9: Develop a Coordinated Plan for Implementation of Actions Agreed by the Meeting
- Agenda Item 10: Any Other Business
- Agenda Item 11: Date and venue for the SEACG/14 meeting

Agenda Item 2: Review Status of Recommended Actions as Agreed at the SEACG/12 Meeting

2.1 The meeting reviewed the implementation status of Action Items agreed upon at SEACG/12 (May 2005, Bangkok). In the course of the review, the meeting noted that the objective of the Action Plan was to identify outstanding issues that should be addressed by SEACG, and not as a reminder for routine and continuous work, thus any items that had been completed or no longer under the domain of the SEACG were removed from the Action Plan.

ATS/RNAV Routes in Southeast Asia – Harmonization of Lower Limit

2.2 With regard to Action Item 11 – Standardize Lower Limits of RNP Routes in the SCS Routes Structure and Establish RNAV Routes Beneath, Hong Kong, China presented the draft AIP supplement for the meetings' considerations. The meeting recalled that Hong Kong, China had brought to the attention of SEACG/11 (May 2004, Bangkok) the variety of lower vertical limits that applied to the SCS RNP 10 routes, which varied between 8000 feet and FL 270. Hong Kong, China proposed that a standard level should be applied to all these routes to the extent possible.

2.3 SEACG/11 agreed that only RNP 10 approved aircraft could operate on the RNP 10 route structure. In this regard, the meeting was informed that the 14th Meeting of ATM/AIS/SAR Sub-

group (ATM/AIS/SAR/SG/14, July 2004) agreed that RNAV routes (non-RNP 10) should be established under the existing RNP 10 routes.

2.4 In line with the discussion at ATM/AIS/SAR/SG/14, Hong Kong, China prepared an AIP supplement for the Hong Kong AIP to distribute the draft supplement to the meeting for comment. Clarifications on the operation of the segregated airspace of RNP 10 were sought from the meeting, such as respective RNAV route designators for the lower non-RNP RNAV routes and the upper RNP RNAV routes. The meeting agreed that the operational issues needed to be further addressed before implementing the harmonized lower limit of RNP 10 airspaces.

2.5 The meeting agreed to close Action Item 11.

Realignment of A1 and P901

2.6 With regard to Action Item 12 – Realignment of A1 and P901, the meeting noted that the realignment in the Sanya Area of Responsibility was presented by China at ATM/AIS/SAR/SG/15. In response to the proposal by China, IATA proposed to have a pair of unidirectional tracks, where traffic was provided with radar control service, between Bangkok Airport and the Pearl River Delta airports and beyond as a means of increasing the capacity of the routes. Chairperson asked the States concerned if they had any objections in considering the adoption of a pair of unidirectional tracks to replace the current routes. The meeting reviewed the unidirectional tracks presented by IATA as in **Appendix C** to this Report and requested States concerned to consider this proposal.

Progress Report on Safety Monitoring Agency Establishment for Asia Region

2.7 With regard to Agenda Item 14 – Establishment of on Safety Monitoring Agency (SMA) for Asia Region, Thailand updated the meeting with the recent activities of the Monitoring Agency for Asia Region (MAAR). At the Fourth Meeting of the Regional Airspace Safety Advisory Group (RASMAG/4, October 2005), the following remarks regarding MAAR's confirmation to assist ICAO in the safety monitoring of RNP-based horizontal-plan separation minimum application in the Asia Region were discussed:

- a) Thailand updated RASMAG/4 in respect of the progress being made towards the establishment of a SMA for the Asia Region, following up MAAR's intention to fulfill the role of SMA to support the implementation of RNP-based horizontal-plane separation minima in the Asia Region in addition to its current RMA duties.
- b) Given the technical capability and prior experience of the regional monitoring agency (RMA) for the RVSM implementation in the Asia Region, MAAR proposed the action plan for the establishment of SMA services. MAAR also advised RASMAG/4 that, although the technical aspects of assessing risks for the implementation of RVSM and RNP-based horizontal-plane separation minima were similar, a number of different aspects would need to be reviewed.
- c) MAAR reported that in order to expand its role to provide SMA services in addition to the RMA services currently provided at no charge, MAAR would require financial support on a cost-recovery basis.

2.8 The updated action plan by MAAR for the establishment of SMA services is provided in **Appendix D** to this Report.

Establishment of CRA for FANS Implementation Team – South-East Asia (FIT-SEA)

2.9 With regard to Action Item 15 – Establishment of Central Reporting Agency (CRA) for FIT-SEA, Japan informed the meeting of the current status of FIT-SEA CRA and relevant issues discussed at the Third Meeting of FIT-SEA (FIT-SEA/3, November 2005). In considering the establishment of CRA for FIT-SEA, FIT-SEA/3 recalled that the generous offer by CRA Japan to provide CRA services for FIT-SEA for operations in the South China Sea (SCS) area was accepted by the participating States present at FIT-SEA/2 (April 2005, Bangkok), including the Philippines and Singapore, and was strongly supported by the Regional Office as well as IATA and IFALPA. The meeting was informed that Indonesia and Viet Nam, who were not at FIT-SEA/2, had been advised by the Regional Office in this regard and had accepted the offer from Japan.

2.10 CRA Japan advised FIT-SEA/3 that the objectives of the FIT-SEA CRA were to assist the FIT-SEA members in planning and implementing ADS/CPDLC systems by sharing the technical and operational information, processing FANS 1/A Problem Reports (PR), disseminating the de-identified PR information, and submitting reports to FIT-SEA and relevant bodies. The meeting also noted that FIT-SEA/3 considered arrangements for data confidentiality agreement between States, airlines, data link service providers and FIT-SEA CRA. FIT-SEA/3 recognized that in order for CRA Japan to act as the FIT-SEA CRA under the authorization of FIT-SEA, it was essential that the three primary States, i.e. the Philippines, Singapore and Viet Nam, establish data confidentiality agreements with airlines who will operate in their respective FIR and participate in the operational trial, so that PR from airlines could be collected by the States and submitted to FIT-SEA CRA. It was noted that a model data confidentiality agreement between States and FIT-SEA CRA was reproduced, and would be circulated by FIT-SEA CRA to the Philippines, Singapore and Viet Nam for their consideration and action.

2.11 The meeting noted the establishment of FIT-SEA CRA by FIT-SEA at FIT-SEA/3 and agreed to close Action Item 15 based on the information provided by Japan.

Update on ADS/CPDLC Implementation Planning

2.12 With regard to Action Item 16 - Update on ADS/CPDLC Implementation Planning, the meeting recognized that operational trials would be carried out phase-by-phase when operational capability becomes available in Viet Nam and the Philippines. The meeting noted that Viet Nam and Singapore would commence the Phase 1 trial in late 2006 or early 2007, and Philippines would join the Phase 2 trial by the end of 2007.

Seminar on Data Link Operations between Viet Nam and Japan

2.13 In this regard, Japan and Viet Nam jointly reported to the meeting that a seminar on data link operations was held in Ho Chi Minh, Viet Nam on 10 and 11 April 2006. The objective of the seminar was to exchange information and views between civil aviation authorities of Japan and Viet Nam on the satellite data link operations in the Ho Chi Minh FIR and the possibility of technical and operational assistance by Japan, with the aim of facilitating the operational trial in a safe and effective manner.

2.14 The meeting was informed that Viet Nam presented to the seminar general information on air traffic management functions introduced at new Ho Chi Minh ACC, i.e. radar data function, radar fallback function, flight data function, air ground data link (AGDL) functions, safety nets and monitoring aids processing function, air traffic generation function, human machine interface function, and communication data function, and the function of receiving and transmitting AIDC messages.

2.15 Further detailed functions of AGDL such as context management, ADS-C processing and CPDLC processing were briefed at the seminar. The current system was connected to ACARS network and the service was provided by ARINC.

2.16 The meeting noted that Japan had briefed Viet Nam on the ASEAN-Japan New Air Navigation System Project, in particular, on one of the draft Recommendations developed by the Third Expert Group Meeting (January 2006, Fukuoka, Japan). This Recommendation by the Expert Group states that “Each Civil aviation authority in the ASEAN countries supports satellite data link operation over the South China Sea by the Philippines, Singapore and Viet Nam”.

2.17 Taking into account Japan’s past experiences, Japan assisted Viet Nam with an ADS/CPDLC implementation schedule for the operational trial up to March 2007 and for the future operations, including separations reduction and AIDC implementation up to 2010.

2.18 The meeting noted the collaborative activities between Japan and Viet Nam towards ADS/CPDLC operational trial in the Ho Chi Minh FIR. IATA appreciated Japan and Viet Nam for their efforts.

Implementation of Radar Handover Procedures

2.19 With regard to Action Item 17 – Implementation of Radar Handover Procedures, SEACG/10 (March 2002, Denpasar) noted that the *Procedures for Air Navigation Services - Air Traffic Management* (PANS-ATM, Doc 4444) provides that States should, to the extent possible, facilitate the sharing of radar information in order to extend and improve radar coverage in adjacent control areas (paragraph 8.1.5) and that States should, on the basis of regional air navigation agreements, provide for the automated exchange of co-ordination data relevant to aircraft being provided with radar services, and establish automated coordination procedures (paragraph 8.1.6) in Chapter 8, Radar Services.

2.20 SEACG/10 was advised that PANS-ATM states that transfer of radar control should be effected whenever practicable so as to enable the uninterrupted provision of radar service (paragraph 8.7.5.1). The procedure enables air traffic controllers to provide continuous service for aircraft and to apply further reduced longitudinal separation when agreed on through the Letters of Agreement between the ATC units concerned. SEACG/13 reviewed the radar coverage chart for South China Sea area developed by SEACG/10 as in **Appendix E** to this Report. China informed the meeting that Sanya Area of Responsibility was fully covered by VHF and radar. Viet Nam advised the meeting that the radar located at Danang covered 250 NM radius of the location. Based on the update on the chart, the radar handover procedure matrix was updated as shown at **Appendix F** to this Report.

Expansion of RVSM Flight Level Band

2.21 With regard to Action Item 23 – Expansion of RVSM Flight Level Band, the secretary informed that the ICAO Separation and Airspace Safety Panel (SASP) did not have any plan to look into this issue because any interest had not been demonstrated at the panel, but if there’s growing interest, steps might be taken by the panel accordingly.

2.22 The meeting agreed to close Action Item 23.

2.23 The meeting further updated the Action Plan under Agenda Item 6 as in **Appendix G** to this Report.

Agenda Item 3: Outcomes of APANPIRG/16

APANPIRG Deficiencies List

3.1 The meeting reviewed the List of Deficiencies in the ATM/AIS/SAR Fields as updated by APANPIRG/16. The ICAO Council, at the 164th Session on 30 November 2001, had approved the definition of a deficiency as follows:

“A deficiency is a situation where a facility, service, or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation”.

3.2 The meeting was informed that in order to enable APANPIRG and its Sub-Groups to make detailed assessments of deficiencies, States and appropriate organizations were expected to provide formal notification of such deficiencies to the Regional Office for action as appropriate, including action at APANPIRG and Sub-Group meetings. The reporting and assessment of deficiencies should be undertaken in accordance with the requirements of the Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies (Uniform Methodology) described in the *APANPIRG Procedural Handbook*.

3.3 In accordance with the Uniform Methodology, the Regional Office may request updates as necessary to keep APANPIRG and its contributory bodies informed. Based on the information provided by States, the meeting updated the List of Deficiencies as in **Appendix H** to this Report.

APANPIRG/16 Conclusions and Decisions

3.4 The meeting noted that APANPIRG/16 raised a total of 60 new Conclusions and Decisions for regional action. The meeting reviewed the 32 Conclusions and Decisions from APANPIRG/16 that were of immediate relevance in the context of ATM, AIS and SAR matters as in **Appendix I** to this Report.

APANPIRG Funding Study Group

3.5 The meeting was informed that APANPIRG/16 recognized an urgent need to develop feasible and sustainable funding solutions for regional safety monitoring so that on-going initiatives to carry out trials and to implement CNS/ATM systems in Asia/Pacific would not be delayed and that safety and efficiency would not be compromised. The meeting noted that APANPIRG/16 agreed to the following Conclusion:

Conclusion 16/2 – Funding arrangements for regional airspace safety monitoring

That, a study group be convened to develop a feasible and sustainable proposal to equip States to organize and finance necessary safety monitoring mechanisms for the provision of safety services for the international airspaces in the Asia/Pacific region and that States be represented at that meeting by their appropriate legal, financial and organizational experts who would be best equipped and empowered to resolve any difficulties. The study group should report to RASMAG not later than the end of June 2006.

Agenda Item 4: Review Current Operations across South-East Asia and Identify Problem AreasReview of the Fourth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/4)

4.1 The meeting reviewed the relevant parts of the Report of RASMAG/4 (October 2005, Bangkok).

Special Implementation Project 2005

4.2 The meeting noted that one of the tasks of the SIP mission 2005 had been to consider a regional strategy for implementation of safety management programmes. Regrettably, there was insufficient time to pursue this matter in detail in 2005. The States visited were at various levels of capability and there was no single solution that fitted all cases. RASMAG/4 was of the opinion that a holistic and concentrated approach to those matters that was enabled and driven by the highest offices and officials in State administrations would provide the most effective solutions, rather than the multi-faceted approaches that were presently characteristic of the region. The Regional Office undertook to consolidate relevant material from RASMAG discussions and ensure that this material was brought to the attention of the project scoping team.

Tripartite RMA Meeting

4.3 The three established RMA, i.e. MAAR, Airservices Australia and the Pacific Approvals Registry and Monitoring Organization (PARMO), met during RASMAG/4 for the three RMAs to meet with an aim to standardize their work methods and to harmonize different values being used in the [collision risk] modeling.

Air Traffic Service on ATS Routes A1 between BUTRA and PAPRA

4.4 Lao PDR reported to the meeting that for last ten years, providing ATS to air traffic operating on A1 portion BUTRA-PAPRA by using HF had suffered difficulties and caused workload to pilots. To follow the initiatives of the Regional Office, the air traffic control (ATC) service on this route portion had temporarily been delegated to Bangkok ACC.

4.5 The meeting noted that remedial actions had been taken by Lao PDR to improve its infrastructure such as the installation of aeronautical fixed telecommunication network, ATS direct speech circuits, two sites of VHF remote controlled air-to-ground, Doppler VOR/DME and mono-pulse SSRs which were able to cover the lower limit of ATS routes in South ACC sector. Vientiane Flight Information Centre had been upgraded to be Vientiane ACC since 2001. Vientiane ACC expressed high appreciation to Bangkok ACC that actively responded the initiatives of ICAO and fulfilled delegated responsibilities for, in close cooperation and coordination with Ho Chi Minh ACC, the provision of air traffic control service to aircraft along ATS routes within southern part of Lao's airspace, particularly A1, for many years.

4.6 The meeting recognized the intention of Lao PDR to take back responsibility of the provision of ATC on A1 portion BUTRA-PAPRA and other crossing routes within the Vientiane FIR. Thailand supported the proposal.

4.7 IATA appreciated Lao's wish to provide ATC between BUTRA-PAPRA. However, from the users' perspective, this should not result in pilots having to establish contact with multiple ACCs simultaneously, as is the case in some areas with small FIRs in the region.

Review of the First Meeting of the ICAO RNP Task Force (RNP/TF/1)

4.8 The meeting reviewed the summary report of RNP/TF/1 (March 2006, Singapore).

Development of Terms of Reference (TOR)

4.9 RNP/TF/1 agreed that implementation of 50/50 NM separations based on RNP 10 on L642 and M771 would be a good start, but that the Task Force should have the whole region in mind as a long-term goal. RNP/TF/1 agreed that as a first step, the Task Force would focus on L642 and M771 and eventually address other routes in the region. Consequently, RNP/TF/1 developed the draft TOR of the Task Force as follows:

Terms of Reference of the RNP IMPLEMENTATION TASK FORCE

The objective of the Task Force is to:

Develop strategic, benefits-driven implementation plans in collaboration with stakeholders, to improve en-route airspace efficiency by means of reduced horizontal separation based on RNP operations within the Southeast Asia area, ensuring inter-regional harmonization.

To meet this objective the Task Force shall:

- a) Review the current South China Sea route structure and examine its suitability for application of reduced horizontal separation based on RNP operations.*
- b) Identify routes where the application of reduced horizontal separation would bring immediate operational efficiency*
- c) Determine the reduced horizontal separation required, taking into account the aircraft approval status of the traffic operating on the relevant routes, capacity increase desired, and communication and surveillance capability of ATS providers.*
- d) Examine the possibility of a phased implementation of reduced horizontal separation based on RNP operations and to detail the phases required and the areas/routes concerned.*
- e) Develop the necessary strategic plans to implement the agreed horizontal separation taking into account airspace user requirements, the need for inter-regional harmonization, and ICAO Standard and Recommended Practices.*
- f) Explore the possibility of further harnessing operational efficiency of the routes through re-reconfiguration and enhanced surveillance.*
- g) Consider setting up appropriate teams/groups which might but not necessarily, include the entire Task Force, to address and implement specific agreed measures within their airspace; and*
- h) Cooperate with other Task Forces and groups which are involved with similar work in the adjacent airspace in order to achieve harmonized inter-regional solutions.*

Scope of Initial Work

The Task Force shall adopt a phase-by-phase approach, beginning with the 50 lateral/50 longitudinal separations based on RNP 10 operations on RNAV routes L642 and M771 as Phase 1.

The Task Force reports to the South East Asia ATS Coordination Group (SEACG).

4.10 SEACG/13, as the parent body of the RNP/TF, reviewed and adopted the TOR of the Task Force.

4.11 RNP/TF/1 discussed a proper name for the Task Force based on the agreed TOR. SEACG/13 had before it proposals by RNP/TF/1 as follows:

- South East Asia Reduced Horizontal Separation Minimum Task Force (SEARHSM/TF)
- South East Asia RNP Implementation Task Force (RNP-SEA/TF);
- South East Asia Longitudinal Separation Task Force (SEALS);
- South East Asia RNP Operations Enhancement Task Force (SEAROE); and
- South East Asia Horizontal Separation Enhancement Task Force (SEAHORSE)

4.12 SEACG/13 considered that the *South East Asia RNP Implementation Task Force* (RNP-SEA/TF) was concise and correctly reflected the adopted TOR.

4.13 The meeting noted that Singapore offered that, after the APANPIRG approval for MAAR to be SMA, they continue at no cost the current arrangement for collating data from Hong Kong China, Philippines as well as other States concerned where reduced horizontal separation would be implemented and forwarding them to MAAR.

Review of the 28th Meeting of the ICAO RVSM Task Force (RVSM/TF/28)

4.14 The meeting reviewed the discussion at RVSM/TF/28 (April 2006, Bangkok) as follows:

Review Proposed Change to Level Allocation

4.15 The meeting noted that the Philippines had expressed the desire to continue to operate with the current flight level allocation system (FLAS). Furthermore, the Philippines advised RVSM/TF/28 of its desire to adopt the single alternate flight level orientation scheme (FLOS) without any modification in the Manila FIR. With the withdrawal of their own proposal, RVSM/TF/28 felt that a consensus could not be reached to adopt the new FLAS proposed by the Philippines and Thailand at RVSM/TF/22. After deliberation on the current and proposed FLAS in terms of safety, capacity, regularity, transition workload, operations and harmonization, RVSM/TF/28 noted that the Philippines, despite undertaking an initiative to propose the changes in the FLAS during RVSM/TF/22, had disagreed with the adoption of proposed FLAS.

4.16 It had been agreed that the endeavor to address the concerns expressed by other States should be continued. In this regard, with the completion of the one-year review for the WPAC/SCS airspace, SEACG/12 noted that the RVSM/TF was no longer involved in RVSM operations in this area, therefore SEACG was required to continue to provide oversight of RVSM matters. SEACG/13 would be kept up to date on the RVSM issues. RVSM/TF/28 was of view that the new FLAS proposal could be raised at SEACG or, if necessary, at ATM/AIS/SAR Sub-group.

4.17 RVSM/TF/28 expressed appreciation to MAAR for the tireless work to conduct the safety assessment for the new FLAS in the SCS area. To facilitate MAAR in conducting the safety assessment on the proposed FLAS in the future, RVSM/TF/28 agreed that the States concerned should finalize and agree the details of the proposed FLAS among themselves before requesting MAAR to conduct the safety assessment.

4.18 Hong Kong, China suggested at RVSM/TF/28 that a dedicated body be established under the auspices of ICAO to pursue measures/options to address concerns of several States in relation to the transition and capacity under the current FLAS arrangement in the SCS area. In light of the foregoing, the Secretariat advised that States concerned consult each other first, then when the States concerned agree on a finalized FLAS, a meeting could be called.

Review of the Combined FIT-BOB/6 and FIT-SEA/3

4.19 The meeting reviewed the relevant part of the Report of the Combined FIT-BOB/6 and FIT-SEA/3 Meeting (November 2005, Bangkok).

Review ADS/CPDLC Implementation in the Bay of Bengal and South East Asia Area

4.20 The Philippines advised the combined meeting that groundwork had commenced, and it was anticipated that stand-alone equipment would be commissioned in 2007 but an integrated arrangement would not be possible until 2011.

4.21 Singapore had confirmed that their ADS/CPDLC systems were operational and that they could join other States in an operational trial. CRA Japan had commenced coordination with Singapore in respect of providing CRA services as agreed at FIT-SEA/2.

4.22 IATA expressed concerns in regard to the compatibility of the ADS/CPDLC ground systems with different airborne equipment carried by Boeing and Airbus. Japan advised the meeting that the basic design of the two systems were the same and that the difference was only in the optional applications and ground system should be modified to cater for such applications for the two systems.

4.23 Viet Nam informed the meeting that the new systems would be connected to a data link service provider network in June 2006.

4.24 FIT-SEA/3 recalled that FIT-SEA/1 (May 2004, Bangkok) agreed that the SCS area ADS/CPDLC operational trial would be carried out by Singapore, the Philippines and Viet Nam. In noting the delay to implementation in the Philippines and the uncertainty in regard to the preparedness of Indonesia, FIT-SEA/3 suggested that a phased approach should be adopted in relation to the implementation of ADS/CPDLC in SCS area, with implementations occurring as soon as State's operational capability become available. Singapore and Viet Nam agreed to work together towards implementing an operational trial as soon as Viet Nam's equipment is commissioned.

CRA – Southeast Asia

4.25 FIT-SEA/3 noted that services to be provided by CRA Japan would be on a voluntary and temporary basis until a formal CRA was established, and adopted the terminology FIT-SEA CRA for the services provided by CRA Japan for the SCS area.

4.26 FIT-SEA/3 agreed that the geographical area of FIT-SEA CRA services shall be defined as follows (Appendix J to the Report of the Combined FIT-BOB/6 and FIT-SEA/3 refers):

The FIT-SEA CRA will provide CRA services for the airspace within the Ho Chi Minh, Manila and Singapore FIRs, where implementation of ADS/CPDLC technologies is considered to enhance surveillance and communications capability, leading to significant benefits for operational efficiency and regularity of flights in the South China Sea area.

4.27 In light of the foregoing, Hong Kong, China noted that the lack of standardization by aircraft manufacturers would impact the success of operational trial. IATA urged the meeting to consider all the issues taking into consideration input from manufacturers and examine proper project planning prior to the start of operational trial. The meeting noted that manufacturers were invited to FIT-SEA but seldom attended.

4.28 Chairman suggested that these issues be raised for further study at the next FIT-SEA.

Upgrade the Air Navigation System by Viet Nam

4.29 Viet Nam reported that during 2001, the Director General of CAAV had taken a decision to build a new Area Approach Control Center in Ho Chi Minh City, Viet Nam. The center had completed equipment such as ATM Automation System, VCCS, Very High Frequency, High Frequency, Radio link, VSAT and PABX, and had capability to provide:

- ATS in the whole Ho Chi Minh FIR;
- approach services for Tan Son Nhat International Airport;
- approach services for all domestic airports in southern Viet Nam; and
- two positions used as back-up for Ha Noi ACC with full functions.

4.30 The meeting noted that the new center had been onn operational trial since 1 March 2006 and no significant problems had been experienced. Viet Nam was planning to conduct a ceremony on 18 March 2006 to operationally commission the new facilities. Relating to the operation of this new AACC, Viet Nam already divided Ho Chi Minh FIR into 5 sectors. All relevant information had been published in AIP Supplement A01/06.

4.31 The meeting appreciated the excellent improvements to the air navigation system by Vietnam and noted the collaborative application in coordinating the meeting with Airlines, Airport Authority and Air Force.

Agenda Item 5: Implementation of the New CNS/ATM Systems in the Region

Review of ADS-B Task Force

5.1 Mr. Li Peng, Regional Officer CNS presented the meeting with an overview of ADS-B system, the progress of ADS-B Study and Implementation Task Force as well as Data Link and Surveillance Strategy in Asia Pacific region.

CNS/ATM Equipage and Implementation Plan in the Asia/Pacific Regional Plan

5.2 FIT-SEA/1 (May 2004) had recognized that there would be some delay in commencing an integrated operational trial of ADS/CPDLC in the SCS area as a result of the low level of equipage amongst SCS States, probably not until 2006/2007. In light of the delays expected, FIT-SEA/1 agreed that the development of the main work programme would be deferred until such time as further information was available regarding the status of the facility upgrades of a number of States which were currently at an early stage, and the consequent preparedness of States to commence a trial.

5.3 Further, it was noted that the Air Navigation Commission (ANC) recognised that work related to air navigation systems and, in particular, development and implementation continue to rank amongst the highest priority items on ICAO's work programme. During its ongoing review of global and regional developments in the modernisation of air navigation system, ANC noted that although good progress had been made with implementation of certain elements of CNS/ATM systems, the overall pace of implementation was slower than originally expected.

5.4 The meeting recognized that the Regional Office encouraged States to continue the implementation of data link systems in accordance with the Air Navigation Plan, and other elements of CNS/ATM systems as well.

Operational Status of JCAB Air Traffic Management Center (ATMC)

5.5 As a follow-up to the discussion of ATFM in SCS area raised at SEACG/12, Japan updated the meeting with the operation of Japan Civil Aviation Bureau (JCAB) ATMC. On 1 October 2005, JCAB ATMC started its operation and moved forward in a phased approach by succeeding air traffic flow management (ATFM) function of the former Air Traffic Flow Management Center that was established in 1994.

5.6 The meeting noted that on 16 February 2006, the Tokyo and Naha FIRs were integrated into a single FIR, namely the Fukuoka FIR. ATMC added new functions such as airspace management (ASM), ATS for the oceanic airspace in the Fukuoka FIR and ATFM in the style of Collaborative Decision Making (CDM).

5.7 The meeting was informed that ATMC provided ASM service along with two main concepts, i.e. airspace planning to organize effective airspace structures and airspace operation to create flexible airspace use environment for airspace users. As a first step, ATMC has liaison officers of Japan's Self Defense Agency assigned to daily operation. These liaison officers work with ATM officers in a collaborative manner, which enables effective coordination for the use of military training and testing airspace when they are not in use.

5.8 The meeting was also informed that ATFM was a function to calculate proper traffic volume and make orderly flow in controlled airspace. For effective ATFM, it is essential to share the real-time information, involving wide range of specialized personnel such as airspace users, meteorological specialists, aeronautical information management (AIM) officers, ATM engineering officers. AIM officers provide information that may influence the operation of aircraft, e.g. closure of runway/taxiways, and collect real-time information about available parking spots at alternate airports. ATM engineering officers monitor CNS systems operations on a display screen, including conventional navigational aids and flight data processing system.

5.9 As the first step, ATS for oceanic control within the Fukuoka FIR commenced in close coordination with ACC in adjacent FIR such as Anchorage, Oakland ARTCCs of the US and Manila ACC of the Philippines.

5.10 IATA noted that a conditional routes system that made use of the unused military training airspace would be a great benefit to the civil users.

ASEAN-Japan New Air Navigation System Project

5.11 The meeting noted that under the ASEAN-Japan New Air Navigation System Project which was formulated under ASEAN-Japan Transport Partnership Project, the Experts Group was established, composed of air navigation system experts from all ASEAN countries and Japan.

5.12 The meeting was informed that activities of the Project and outcomes of the Experts Group meetings had been reported to the ASEAN Air Transport Working Group (ATWG), then to the ASEAN Transport Senior Officials Meetings (STOM) for endorsement.

Recommendation by the Experts Group

5.13 It was noted that the Third Experts Group Meeting developed “Draft Recommendation for the ASEAN-Japan New Air Navigation System”, and agreed to submit this Draft Recommendation to ATWG for endorsement. A summary of the Draft Recommendation was as follows:

Each Civil Aviation Authority (CAA) in the ASEAN countries:

- a) Adopts the proposed CNS/ATM implementation plan for each ASEAN country developed by the ASEAN-Japan Experts Group on the New Air Navigation System Project, and proceed with its implementation;*
- b) Requests the Government of Japan for possible assistance for the implementation of the CNS/ATM systems, if needed;*
- c) Supports the initiatives for managing international air traffic flows over the Bay of Bengal;*
- d) Continue studying future needs of international air traffic flow management in Southeast Asia, in particular in the South China Sea area;*
- e) Supports satellite datalink operation over the South China Sea by the Philippines, Singapore and Viet Nam; and*
- f) Fosters human resource development through the JICA Third Country Training Program for the CNS/ATM Basic Training Course at the Civil Aviation Training Center in Manila, the Philippines.*

The CATC in Manila, the Philippines:

- a) *Conducts, in cooperation with the JICA office in Manila, the CNS/ATM Basic Training Course for the ASEAN countries.*

and

JCAB:

- a) *Assists and cooperates with each relevant authority/agency in the ASEAN region to progress the implementation of the CNS/ATM systems;*
- b) *Provides ASEAN countries with information on the progress of implementation of the systems in Japan;*
- c) *Dispatches a short-term JICA expert to Viet Nam to assist in developing plans for CNS/ATM implementation for Viet Nam, once the JCAB receives an official request from the Ministry of Foreign Affairs;*
- d) *Assists satellite datalink operations over the South China Sea, including monitoring service of the operations with the Philippines, Singapore and Viet Nam; and*
- e) *Supports the Philippines Air Transportation Office in conducting the CNS/ATM Basic Training Course at the Philippines CATC.*

5.14 Japan emphasized that their efforts with ASEAN countries were aimed to support and supplement the work of ICAO. The meeting noted the collaborative activities by ASEAN countries and Japan under the ASEAN-Japan New Air Navigation System Project, and IATA expressed appreciation to Japan for their efforts.

Agenda Item 6: ATS Route Development

6.1 The meeting was informed that the ATS Route Network Review Task Force (ARNR/TF, disbanded) had developed the *Asia/Pacific ATS Route Catalogue* and agreed that the Catalogue should be updated by the 15th Meeting of ATM/AIS/SAR Sub-group (ATM/AIS/SAR/SG/15, July 2005) and be submitted to 16th Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/16, August 2005) for adoption as a supplement to the Basic Air Navigation Plan.

6.2 The meeting was informed that the Catalogue Version 1 was published in August 2005 and was now available from the ICAO Asia/Pacific web site (<http://www.icao.int/apac/>) under the menu “eDocuments”. ARNR/TF intended that the Catalogue should be an informal document that consolidated material from the Basic Air Navigation Plan and related documents to serve as an aid to States and users for route planning purposes. It was noted that the Catalogue was primarily a one stop information document, showing which routes are contained in the BANP, the status of implementation and amendment of routes, and future route requirements of States and users.

6.3 In considering updating and amendment of the Catalogue, as the document was meant to be a planning aid to users and should be a living document, amendment should be kept to an informal level. As the Regional office was responsible for managing the amendment process for the BANP, APANPIRG/16 agreed that the Catalogue should also be maintained on the same basis, noting that the Catalogue would be left to the Regional office to update.

6.4 The meeting was informed that, in regard to including material in Chapters 4 and 5 of the Catalogue, this would require some additional prior approval process and material should not be simply submitted to the Regional Office on an ad hoc basis by the originator. The meeting also noted that IATA would submit route proposals by IATA member airlines for processing in accordance with their established practices.

6.5 APANPIRG/16 considered that the ongoing work to implement routes was a high priority of States and users and therefore developed the following Conclusion:

Conclusion 16/10 – Review of ATS Route Catalogue by States

That, the States concerned study the routes in the Asia/Pacific ATS Route Catalogue in respect to the feasibility of the route requirements, in order to consider their implementation with appropriate priorities, and to raise route implementation proposals as relevant ATS Coordination Meeting in the Asia/Pacific Region.

6.6 The meeting reviewed and updated Version 2 of the Catalogue. The meeting agreed that updates by States and users would be incorporated by the Regional Office, and Version 3 would subsequently be published on the ICAO Asia/Pacific website.

Review of ATS Route Catalogue by IATA

6.7 IATA informed the meeting that the Catalogue contained five chapters as follows:

Chapter 1: Routes in BANP – Implemented

Chapter 2: Routes in BANP – Not Implemented

Chapter 3: Routes Implemented – Not in the BANP/not in Accordance with the BANP

Chapter 4: Future Requirements – States

Chapter 5: Future Requirements – Users

6.8 IATA confirmed that nine routes in Chapter 5 of the Catalogue had been successfully implemented to date. Several routes contained in Chapter 4 had also been implemented. IATA placed on record its appreciation to all States and the Regional Office for their respective roles in the route planning and implementation. Special thanks went to Cambodia, China, India, Singapore, Thailand and Viet Nam for accelerating the implementation of routes in Chapter 5. IATA looked forward to working with the States to implement the remaining routes in Chapter 4 and 5.

6.9 IATA hoped that all the route proposals in Chapter 5 would be given due consideration and expeditiously implemented. Therefore, IATA requested that the meeting consider assigning a priority to implementation of the routes and agree that States would continue to process the implementation of the route proposals on an ongoing basis in accordance with the guidelines in the *ATS Planning Manual (Doc9426)*.

Agenda Item 7: Development of State Contingency Plans

7.1 APANPIRG/14 recognized that the Regional Office's survey of State contingency plans called for by APANPIRG12 under Conclusion 12/6 had not yet been undertaken, and noted the matter as ongoing. APANPIRG/14 urged States to complete State contingency plans and send a copy to the Regional Office.

7.2 The Regional Office conducted the survey of Asia/Pacific States contingency plan in March 2005 (State letter Ref: AP029/05 (ATM) refers). ATM/AIS/SAR/SG/15 was advised of the results of the survey and the poor response from States. As of 16 July 2005, the Regional Office had only received responses from 12 States. However, some States' responses did not fully address the parameters described in the survey.

7.3 APANPIRG/16 expressed that developing a State contingency plan to meet ICAO requirements could be very complex and involve a wide range of issues such as delegating responsibility to another State for provision of ATS and associated legal, financial and technical issues, the involvement of many government agencies, and development of operational procedures and training for pilots and controllers. APANPIRG/16 acknowledged that for some States, these matters could be difficult to overcome.

7.4 APANPIRG/16 agreed that a SIP proposal should be prepared by the Regional Office and the subject of Contingency Planning should be included on the agenda of State ATS coordination meetings. APANPIRG/16 adopted the following Decision 16/14 in this respect:

Decision 16/14 – Contingency Plans on ATS Coordination Group Agendas

That, the development of State Contingency Plans be included as an item on the agenda of State ATS coordination meetings.

7.5 APANPIRG/16 requested the Regional Office to continue with the survey and undertake follow up actions with States that had not responded to the survey request. A summary of the survey outcomes as of 16 May 2006 is included as **Appendix J** to this Report and will be presented to APANPIRG/17 for consideration.

Agenda Item 8: Civil Military Coordination

8.1 APANPIRG/16 decided under Decision 16/16 that "Civil Military Coordination" be included as an item on the agendas and/or task list of regional ATS Coordination Groups. However, no discussion took place in respect of civil military coordination.

Agenda Item 9: Develop a Coordinated Plan for Implementation of Actions Agreed by the Meeting

9.1 Based on the review by the meeting under Agenda Item 2 of the Action Plans from SEACG/12 and subsequent discussions during this meeting, 14 items were closed and 1 item was added. The updated Action Plan is at Appendix G to this Report.

Agenda Item 10: Any Other BusinessWake Vortex Report - EANPG

10.1 The meeting was informed that on 13 August 2005, an incident involving wake vortex was reported to Shannon Operations Management through the Irish Aviation Authority's Mandatory Occurrence Reporting scheme. The report indicated that a B757-200 aircraft had experienced a violent and uncontrollable roll of 45° accompanied by a 400 feet loss of altitude caused, in the pilot's opinion, by the wake of a preceding aircraft, A345.

10.2 The 47th Meeting of European Air Navigation Planning Group (EANPG/14, November-December 2005) noted that in-trail climbs were a normal action used by air traffic controllers in the management and organization of air traffic and that, at the time of the incident, the separation between the aircraft was in excess of the separation standard used by ATC.

10.3 In recognition of the concerns in this regard, EANPG/14 formulated Conclusion 47/5 inviting EANPG States to note the information concerning the above mentioned wake turbulence incident and requesting the wide dissemination of information on the potential severity of such incidents. In order to determine the appropriate course of action to be taken in relation to wake vortex encounters, ICAO EUR/NAT Office requested that all wake turbulence related incidents in EANPG States be reported.

10.4 SEACG/13 noted the information.

ICAO Language Proficiency Survey

10.5 APANPIRG/16 recognized the high stakes involved in implementing the language proficiency provisions, with particular regard to the potential loss of careers of industry participants who, although having worked operationally for many years, were unable to reach the Level 4 requirements for operational staff. In order to establish the magnitude of regional difficulties being experienced in this respect, APANPIRG/16 endorsed Conclusion 16/21 requiring the Regional Office to conduct a survey of Asia/Pacific States in order to ascertain States' circumstances in respect of compliance by March 2008 with ICAO language proficiency provisions.

10.6 The meeting noted that ICAO Headquarters implemented a survey to ascertain the status of implementation of language proficiency provisions following the lead set by APANPIRG, to be conducted globally in the first quarter of 2006. The survey had been jointly developed by the ICAO Headquarters and Regional Office in order to assist the assessment of language proficiency implementation in States. The survey included core items, to which additional information could be added to reflect the specific circumstances of each State.

10.7 The meeting recognized that a State letter Ref.: T3/9.4 – AP128/05 (ATM) was issued by the Regional Office on 7 December 2005 requesting the participation of States in the survey, with responses to be received at the Regional Office by 24 February 2006. All responses to the surveys would be treated confidentially and responses received by the Regional Office were summarized and forwarded to ICAO Headquarters for consideration by the ANC and the ICAO Council in the second quarter of 2006.

10.8 The meeting also noted that a full and comprehensive response to the survey would provide useful information with which to determine the most suitable actions to assist State compliance with the language proficiency provisions. As of date, 14 States plus 2 Special Administrative Regions of China had responded to the survey (Australia, China, Hong Kong China, Macao China, Kingdom of Cambodia, Malaysia, New Zealand, Republic of Korea, Singapore,

Indonesia, Fiji Island, India, Myanmar, Pakistan, Republic of Maldives and Thailand). All responses to the survey were treated confidential. It is anticipated that the review by the ANC will result in additional work items being raised for action by ICAO and contracting States.

Airbus A380 Wake Turbulence

10.9 As the new Airbus A380 aircraft would commence regional demonstration flights from approximately 10 November, ICAO had received a number of requests from States in respect of the wake turbulence separation minima to be applied. It was noted that a State letter Ref.: AP-108/05 (ATM) dated 3 November 2005 had been transmitted in this respect, advising caution in respect of wake turbulence spacing with the A380.

10.10 It was further noted that additional ICAO State letter AP111/05 (ATM) was transmitted by the Regional Office in respect of this issue on 10 November 2005 and included guidance on expanded wake turbulence parameters to be used.. In view of the size/weight of the aircraft, an ad hoc group of experts under the auspices of the United States Federal Aviation Administration (FAA), EUROCONTROL, the Joint Aviation Authorities (JAA) and the manufacturer was examining the wake turbulence aspects of the aircraft in comparison with other large aircraft. The final report of the working group was expected to be available in early 2006.

10.11 IATA informed RVSM/TF/27 (February-March 2006, Bangkok) that the research of the wake turbulence of A380 in a clean configuration at cruise had been completed by Airbus. Further research on the wake turbulence during take-off would be completed by May 2006. Airbus would present their findings to ICAO in June 2006.

10.12 States concerned may wish to further enquire with the State of Manufacture and/or the aircraft manufacturer for information on latest wake turbulence data in order to facilitate consideration of these issues.

ICAO Runway Safety Toolkit

10.13 The meeting was informed of the availability of the "*Runway Safety Toolkit*", which was produced by ICAO and Embry-Riddle Aeronautical University, Florida, United States as part of a continuing effort to assist States in the implementation of runway incursion prevention programmes. The toolkit was the compilation of best available material, obtained over a period of several years, and also made use of information and knowledge obtained during a series of ICAO seminars on the subject of runway safety, held between October 2002 and October 2004.

ICAO Safety Management Manual (SMM, Doc 9859)

10.14 In light of the expansion of provisions for safety management systems in other areas in addition to ATS, in particular Annexes 14 – *Aerodromes* and 6 – *Operation of Aircraft*, ICAO pursued the philosophy of a combined safety management manual, rather than a series of separate manuals addressing separate ICAO Annexes.

10.15 The meeting noted that the ICAO *Safety Management Manual* (Doc 9859), which supersedes and replaces the drafted *Manual of Safety Management for ATS*, has been published. The First Edition of the manual (comprising of 290 pages) is available from the Regional Office at US\$ 167.

Required Communication Performance (RCP) Concepts

10.16 The Secretariat provided introductory material to the meeting in respect of RCP Concepts. To meet the demands on airspace capacity and operational efficiency, the operational communication capability was increasingly playing an essential role in ATM using a mixture of data and voice communication. For example, data link can provide for integration of air traffic management functional capabilities on the aircraft and at the ATS units, and more direct controller-pilot communications enabling user-preferred and dynamic rerouting, and intervention capabilities in reduced separation environments where alternative communications are more cumbersome.

10.17 The following are examples of RCP types under consideration:

- RCP 10 would be used for controller intervention capability supporting separation assurance in a 5 NM radius environment.
- RCP60 may be applied to routine communications on a data link system to offload the voice communication system, in combination with the RCP 10 in a 5 NM radius environment.
- RCP 120 would be used for controller intervention capability supporting separation assurance in a 15 NM radius separation environment.
- RCP 240 would be used for controller intervention capability supporting separation assurance in a 30/30 NM separation environment.
- RCP 400 would be used for controller intervention capability supporting separation assurance in current environments where separations are greater than 30/30 NM and alternative technologies are planned for providing normal means of communication, e.g., Iridium voice or HF data link in lieu of HF voice.

Adoption of Amendment 44 to Annex 11

10.18 The meeting was advised that on 24 March 2006, ICAO Headquarters issued a State letter Ref.: AN 13/13.1-06/32 regarding the “Adoption of Amendment 44 to Annex 11”. The Annex 11 amendment would become applicable on 23 November 2006 and introduce:

- a) new and revised standards, as well as guidance material on the concept of acceptable level of safety, to harmonize safety management requirements in Annexes 6, 11 and 14, in response to the need to complement the prevailing approach to the management of safety based upon regulatory compliance with a performance-based approach; and
- b) a recommended practice that ATC units be equipped with devices that record background communication and the aural environment at air traffic controller work stations, which may offer additional information to the accident investigation authority.

Speech Sample Training Aid

10.19 The meeting was informed that ICAO Headquarters issued a State letter Ref.: AN 12/44.2-06/39 on 24 March 2006 regarding the “ICAO Language Proficiency Requirements – Rated Speech Samples CD-ROM” which notifies the release of a CD-ROM containing recorded speech samples. The objective of this CD-ROM was to support the implementation of the new Standards and Recommended Practices (paragraph 1.2.9 and Appendix 1 of Annex 1 refer) with regard to language proficiency. It had been designed to supplement the *Manual on the Implementation of ICAO Language Proficiency Requirements* (Doc 9835).

Bay of Bengal ATFM Operational Trial

10.20 The Chairman updated the meeting in relation to the progress being made by the Air Traffic Flow Management Task Force (ATFM/TF) of the Bay of Bengal ATS Coordination Group (BBACG), towards the operational trial of an automated flow management tool for regulating the flow of traffic across the Bay of Bengal transiting the Kabul FIR during the night time peak traffic period (2000-2359UTC).

10.21 In addition to the large numbers of affected flights originating from India, Malaysia, Pakistan, Singapore and Thailand, ATFM/TF had identified specific cases of long haul flights originating from China, Hong Kong China, Viet Nam, Philippines and Indonesia that would transit the Kabul FIR during this period.

10.22 The meeting noted that the ATFM operational trial would enable an operational assessment of the Bay of Bengal Cooperative ATFM Advisory System (BOBCAT) that had been developed by Thailand. A final Go/No-go decision in respect of the commencement of the trial would be made after a review by ATFM/TF of all aspects of preparedness; a SCM of core team members of the ATFM/TF had been scheduled on 14-16 June 2006 for this purpose.

10.23 As well as the BOBCAT user interface itself, the BOBCAT website at <https://www.bobcat.aero> would contain additional documentation necessary for the education and training of airline dispatcher and ANSP staff, including the *Bay of Bengal and South Asia ATFM Handbook* and BOBCAT Safety Assessment, as well as a summary of frequently asked questions (FAQ).

10.24 In conducting this work, ATFM/TF recognized the critical role that would be played by airline operators and ATC units in applying the procedures contained in AIP supplements. As such, the meeting recognized that it was necessary for all participants likely to be affected by the conduct of the operational trial to be fully aware of, and comply with, the procedures contained in the AIP supplements. In this regard, ATFM/TF recommended that all States with affected operators and/or ATC units should publish the AIP supplements as soon as possible.

ICAO Exploratory Meeting on UAV

10.25 A copy of working paper 2 of the ICAO Exploratory Meeting on Unmanned Aerial Vehicles (UAVs), to be held in Montreal, Canada during May 2006, was presented to the meeting.

Agenda Item 11: Date and Venue for the SEACG/14 meeting**Venue for the Meeting**

11.1 The meeting recognized that the establishment of RNP-SEA/TF and the ongoing work of the FIT-SEA had added additional meeting and resource burdens on those involved.

11.2 The meeting was informed that the next meeting of the FIT-SEA was scheduled for 25-28 July 2006 at the Regional Office, in combination with the FIT-BOB. FIT-SEA would continue with preparations for the ADS/CPDLC operational trial in the SCS and further meetings may be required in order to ensure the commencement of the trial.

11.3 As RNP-SEA/TF and FIT-SEA were undertaking major components of the work of the SEACG, the meeting considered that there was not an urgent need for the SEACG to meet during the next 12 months. Accordingly, the Regional Office would schedule the SEACG/14 meeting during May/June 2007 and advise the meeting arrangements in due course.

11.4 However, the meeting considered that the duration of four days was not enough to cover the wide variety of topics and the reports from the subordinated bodies. The meeting requested that the next meeting be five day meeting.

Closing of the Meeting

11.5 In closing the meeting the Chairman thanked States and international organizations for their excellent cooperation and participation in addressing the matters raised at the meeting which led to substantial progress on a number of important issues and closed the meeting.

.....

SEACG/13
Appendix A to the Report

LIST OF PARTICIPANTS

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
BRUNEI DARUSSALAM		
Mr. Affinde Bin Hj Mohd Noor	Air Traffic Control Officer Grade I Department of Civil Aviation Ministry of Communication Brunei International Airport Brunei Darussalam	Tel: +673-02-2330142 ext 1430 Fax: +673-02-2331157
Ampuan Hj Hamdzah Bin Ampuan Hj Damit	Acting Chief Air Traffic Control Officer Department of Civil Aviation Ministry of Communication Brunei International Airport Brunei Darussalam	Tel: +673-02-2330142 ext 1842 Fax: +673-02-2331157 E-mail: ahz_sarbru@yahoo.com.sg
CAMBODIA		
Mr. Chhun Sivorn	Deputy Director of Flight Operations and Air Safety State Secretariat of Civil Aviation #62, Preah Norodom Blvd Phnom Penh Cambodia	Tel: +855-12-866659 Fax: +855-23-725938 E-mail: chhunsivorn@yahoo.com
Mr. Kroch Vandy	Flight Movement Control Officer State Secretariat of Civil Aviation #62, Preah Norodom Blvd Phnom Penh Cambodia	Tel: +855-23-427141 +855-12-812026 Fax: +855-23-725938 E-mail: krochvandy@yahoo.com
Mr. Saichon Pingsakul	Director Planning and Training Dept. Cambodia Air Traffic Services Co., Ltd. CATS Building, Opposite Phnom Penh International Airport Russian Federation Blvd Sangkat Kakab, Khan Dang Kor Phnom Penh Cambodia	Tel: +855-16-777700 Mobile: +855-16-771135 Fax: +855-16-777715 E-mail: saichonp@cats.com.kh
CHINA		
Mr. Kang Nan	Assistant of ATC Division Air Traffic Management Bureau of CAAC 12# East San-huan Road Middle Chaoyang District Beijing 100022, P.R. China	Tel: +86-10-8778 6815 Fax: +86-10-8778 6810 E-mail: kangnan@atmb.net.cn
Mr. Huang Wei Fang	Assistant of Airspace Management Division Air Traffic Management Bureau of CAAC 12# East San-huan Road Middle Chaoyang District Beijing 100022, P.R. China	Tel: +86-10-8778 6838 Fax: +86-10-8778 6830 E-mail: huangweifang@atmb.net.cn

SEACG/13
Appendix A to the Report

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
HONG KONG, CHINA		
Mr. Colman Shung-ching Ng	Acting Assistant Director General of Civil Aviation Civil Aviation Department 4/F Air Traffic Control Complex Hong Kong International Airport Lantau Hong Kong, China	Tel: +852-2910 6402 Fax: +852-2910 0186 E-mail: cscng@cad.gov.hk
Mr. Lucius Wai-chuen Fan	Air Traffic Control Officer I Civil Aviation Department 4/F Air Traffic Control Complex Hong Kong International Airport Lantau Hong Kong, China	Tel: +852-2910 6448 Fax: +852-2910 0186 E-mail: lwcfan@cad.gov.hk
Mr. Lau Sze Po Sansom	Acting Air Traffic Control Officer I Civil Aviation Department 4/F Air Traffic Control Complex Hong Kong International Airport Lantau Hong Kong, China	Tel: +852-2910 6808 Fax: +852-2910 0186 E-mail: ssplau@cad.gov.hk
JAPAN		
Mr. Hiroshi Inoguchi	Special Assistant to the Director ATS System Planning Division ATS Department JCAB, MLIT 2-1-3 Kasumigaseki, chiyoda-ku Tokyo 100-8918, Japan	Tel: +81 3 5253 8111 ext 51128 Fax: +81 3 5253 1663 E-mail: inoguchi-h2hh@mlit.go.jp
Ms. Kumi Inoue	Air Traffic Management Officer Air Traffic Management Center 1302-17 Kosenuki Nata Fukuoka Japan	Tel: +81 92 608 8891 Fax: +81 92 608 8895 E-mail: inoue-k07n8@atmc.mlit.go.jp
Mr. Yoshiro Nakatsuji	Director ATCA-J 1-6-6, Haneda Airport Ota-ku Tokyo 144-0041 Japan	Tel: +81 3 3747 1685 Fax: +81 3 3747 0856 E-mail: naka@atcaj.or.jp
LAO PDR		
Mr. Phouthone Phrakaysone	Deputy Director of Air Navigation Division Department of Civil Aviation Wattay/Vientiane International Airport P.O. Box 119 Vientiane, Lao PDR	Tel: +856-21-512164 Fax: +856-21-512164 E-mail: laodca@laotel.com
Mr. Maity Sylithammavong	Watch Supervisor Lao Airport Authority Department of Civil Aviation Wattay International Airport P.O. Box 3175, Vientiane Lao PDR	Tel: +856-21-512006, 513002 Mobile: +856-20-5414040 Fax: +856-21-512216 E-mail: hugmt@yahoo.com

SEACG/13
Appendix A to the Report

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
PHILIPPINES		
Mr. Salvador G. Rafael	Chief, ATC Division Air Traffic Service Air Transportation Office Old MIA Road, Pasay City Philippines 1300	Tel: +63-2 879 9160 Fax: +63-2 879 9160 E-mail: raffy_thunder92@yahoo.com
SINGAPORE		
Mr. Rosly Bin Md Saad	Chief Singapore Air Traffic Control Centre Civil Aviation Authority of Singapore Singapore Changi Airport 60 Biggin Hill Road Singapore 509950	Tel: +65-6541 2685 Fax: +65-6545 6252 E-mail: rosly_saad@caas.gov.sg
Mr. Loke Chee Yong, Jeffrey	Air Traffic Control Manager Civil Aviation Authority of Singapore Singapore Changi Airport P.O. Box 1 Singapore 918141	Tel: +65-6541 2668 Fax: +65-6545 6516 E-mail: loke_chee_yong@caas.gov.sg
THAILAND		
Mr. Chintawat Phettriang	Air Traffic Control Instructor Civil Aviation Training Centre 1032/355 Phaholyothin Rd. Ladyao, Jattujak, Bangkok 10900 Thailand	Tel: +66-2-272 6029 Fax: +66-2-272 5292 E-mail: chintawat_jp@hotmail.com
Wg.Cdr. Anan Pontam	Flight Instructor Civil Aviation Training Centre 66/18 Soi Boa Fai Hua Hin, Prajuap Khiri Khan Thailand	Tel: +66-32-520 337 Fax: +66-32-520 146 E-mail: apontam@yahoo.com
Mr. Suttipong Kongpool	Director, Air Traffic Services Planning Department Aeronautical Radio of Thailand Ltd. 102 Soi Ngarmduplee Tungmahamek, Sathorn Bangkok 10120, Thailand	Tel: +66-2-287 8217 Fax: +66-2-285 9716 E-mail: suttipong.ko@aerothai.co.th
Mr. Sompote Nilpairatch	Director, En-route Air Traffic Management Department Aeronautical Radio of Thailand Ltd. 102 Soi Ngarmduplee Tungmahamek, Sathorn Bangkok 10120, Thailand	Tel: +66-2-287 8422 Fax: +66-2-287 8424 E-mail: sompote.ni@aerothai.co.th
Dr. Paisit Herabat	Executive Officer, Systems Engineering Aeronautical Radio of Thailand Ltd. 102 Soi Ngarmduplee Tungmahamek, Sathorn Bangkok 10120, Thailand	Tel: +66-2-285 9191 Fax: +66-2-285 9716 E-mail: paisit@aerothai.co.th
Mr. Watee Arthakamol	Air Traffic Control Manager Aeronautical Radio of Thailand Ltd. 102 Soi Ngarmduplee Tungmahamek, Sathorn Bangkok 10120, Thailand	Tel: +66-2-285 9532 Fax: +66-2-285 9077 E-mail: watee.ar@aerothai.co.th

SEACG/13
Appendix A to the Report

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
Mr. Tinnagorn Choowong	Air Traffic Control Manager Aeronautical Radio of Thailand Ltd. 102 Soi Ngarmduplee Tungmahamek, Sathorn Bangkok 10120, Thailand	Tel: +66-2-285 9975 Fax: +66-2-285 8560 E-mail: tinnagorn.ch@aerothai.co.th
Mrs. Sirikes Niemloy	Air Traffic Control Manager Aeronautical Radio of Thailand Ltd. 102 Soi Ngarmduplee Tungmahamek, Sathorn Bangkok 10120, Thailand	Tel: +66-2-285 9465 Fax: +66-2-287 8560 E-mail: sirikes.ni@aerothai.co.th
Capt. Titiwat Bodhidatta	Deputy Manager, Operations Safety Quality Department Operations Support Department Thai Airways International (Public) Co., Ltd. 89 Vibhavadi Rangsit Rd Bangkok 10900, Thailand	Tel: +66-2-545 3150 Fax: +66-2-545 3849 E-mail: titiwat.b@thaairways.com
Mr. Pairat Wonganan	Manager, Flight Dispatch Bangkok Airways Company Limited Flight Dispatch Section, 2/F Domestic Terminal Bangkok Airport Bangkok 10210	Tel: +66-2-535 3486 535 2499 ext 346 Fax: +66-2-504 3981 E-mail: pairat@bangkokair.com
VIET NAM		
Mr. Do Dinh Ninh	Deputy Director of Air Navigation Department Civil Aviation Administration of Vietnam 119 Nguyen Son Street, Long Bien District Hanoi City, Viet Nam	Tel: +84-4-8274191 Fax: +84-4-8274194
Mr. Tran Xuan Son	ATS Specialist Viet Nam Air Traffic Management/CAAV Gia Lam Airport Long Bien District Hanoi, Vietnam	Tel: +84-4-8725 271 Fax: +84-8-8725 281 E-mail: vatmats@hn.vnn.vn
IATA		
Mr. Soon Boon Hai	Assistant Director, Safety Operations and Infrastructure – Asia/Pacific International Air Transport Association 77 Robinson Road #05-00 SIA Building Singapore 068896	Tel: +65-6239 7267 Fax: +65-6536 6267 E-mail: soonbh@iata.org
Mr. Owen Dell	Manager International Operations Cathay Pacific Airways Limited International Operations International Affairs, Cathay Pacific City 9/F, Central Tower, 8 Scenic Road Hong Kong International Airport Lantau Island Hong Kong, China	Tel: +852-2747 8829 Fax: +852-2141 8829 E-mail: owen_dell@cathaypacific.com

SEACG/13
Appendix A to the Report

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
Capt. Aric Oh	Deputy Chief Pilot (Technical) Singapore Airlines Ltd. Flight Operations Technical (SIN-STC 04-C) SIA Training Centre 04-C 720 Upper Changi Road East Singapore 486852	Tel: +65-6540 3694/3674 Fax: +65-6542 9564 E-mail: aric_oh@singaporeair.com.sg
Mr. Victor Yeoh	Manager Flight Ops Technical – Services Singapore Airlines Ltd. SIA Training Centre 04-C 720 Upper Changi Road East Singapore 486852	Tel: +65-6540 3406, 3410 Fax: +65-6542 9564 E-mail: victor_yeoh@singaporeair.com.sg
IFALPA		
Capt. Ng Kok Seong	ALPA Singapore 47 Limau Grove Singapore 467841	Tel: +65-6444 9425 Fax: +65-6444 9425 E-mail: kokseong@singnet.com.sg
ICAO		
Mr. Kyotaro Harano	Regional Officer, ATM ICAO Asia & Pacific Office 252/1 Vibhavadi Rangsit Rd Bangkok 10900, Thailand	Tel: +66-2-537 8189-ext 159 Fax: +66-2-537 8199 E-mail: kharano@bangkok.icao.int
Mr. Li Peng	Regional Officer, CNS ICAO Asia & Pacific Office 252/1 Vibhavadi Rangsit Rd Bangkok 10900, Thailand	Tel: +66-2-537 8189-ext 158 Fax: +66-2-537 8199 E-mail: pli@bangkok.icao.int
Mr. Polawat Chootai	Regional Officer, ATM ICAO Asia & Pacific Office 252/1 Vibhavadi Rangsit Rd Bangkok 10900, Thailand	Tel: +66-2-537 8189-ext 151 Fax: +66-2-537 8199 E-mail: pchootai@bangkok.icao.int

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

WORKING PAPERS

NUMBER	AGENDA	TITLE	PRESENTED BY
WP/1	1	Provisional Agenda	Secretariat
WP/2	2, 9	Review of SEACG/12 Action Plan	Secretariat
WP/3	3	List of Air Navigation Deficiencies in the ATM/AIS/SAR Fields	Secretariat
WP/4	3	<i>WITHDRAWN</i>	Secretariat
WP/5	3	Review of Conclusions and Decisions of APANPIRG/16	Secretariat
WP/6	4	Traffic Sample Data (TSD) State Letter	Secretariat
WP/7	4	Review of the Fourth Meeting of Regional Airspace Safety Monitoring Advisory Group	Secretariat
WP/8	4	Air Traffic Service on ATS Route A1 between BUTRA and PAPRA	Lao PDR
WP/9	4	Review of the First Meeting of the ICAO RNP Task Force (RNP/TF/1)	Secretariat
WP/10	4	Review of the 28 th Meeting of the ICAO RVSM Task Force (RVSM/TF/28)	Secretariat
WP/11	4	Review of the Combined Sixth Meeting of the Bay of Bengal FANS Implementation Team (FIT-BOB/6) and the Third Meeting of the South East Asia FANS Implementation Team (FIT-SEA/3)	Secretariat
WP/12	6	Review of the Asia and Pacific ATS Route Catalogue	Secretariat
WP/13	7	Review of State Contingency Planning Requirements	Secretariat
WP/14	10	Wake Turbulence	Secretariat
WP/15	10	ICAO Language Proficiency Survey	Secretariat
WP/16	5	CNS/ATM Equipage and Implementation Plan in the Asia/Pacific Regional Plan	Secretariat
WP/17	2	Establishment of Central Reporting Agency (CRA) for FIT-SEA	Japan
WP/18	2	ATS/RNAV Routes in South-East Asia Harmonization of Lower Limit	Hong Kong, China
WP/19	10	Adoption of Amendment 44 to Annex 11	Secretariat
WP/20	6	Review of the ATS Route Catalogue	IATA
WP/21	10	Bay of Bengal ATFM Operational Trial	Chairman

SEACG/13
Appendix B to the Report

INFORMATION PAPERS

NUMBER	AGENDA	TITLE	PRESENTED BY
IP/1	-	List of Working Papers (WPs) and Information Papers (IPs)	Secretariat
IP/2	3, 4	Funding arrangements for Regional Airspace Safety Monitoring	Secretariat
IP/3	4, 7	<i>WITHDRAWN</i>	Secretariat
IP/4	5	Operational Status Of JCAB Air Traffic Management Center (ATMC)	Japan
IP/5	10	Guidance Material in regard to Wake Vortex aspects of A380 aircraft	Secretariat
IP/6	10	ICAO Runway Safety Toolkit	Secretariat
IP/7	10	ICAO Safety Management Manual (Doc 9859)	Secretariat
IP/8	10	Required Communication Performance (RCP) Concepts – An Introduction	Secretariat
IP/9	5	ASEAN-Japan New Air Navigation System Project	Japan
IP/10	2, 5	Seminar on Datalink Operations between Viet Nam and Japan (Ho Chi Minh, Viet Nam, 10-11 April 2006)	Viet Nam & Japan
IP/11	4, 7	Upgrade the Air Navigation System to meet the Demand	Viet Nam
IP/12	10	Language Proficiency – Rated Speech Samples	Secretariat
IP/13	2	Progress Report on Safety Monitoring Agency (SMA) Establishment for Asia Region	Thailand

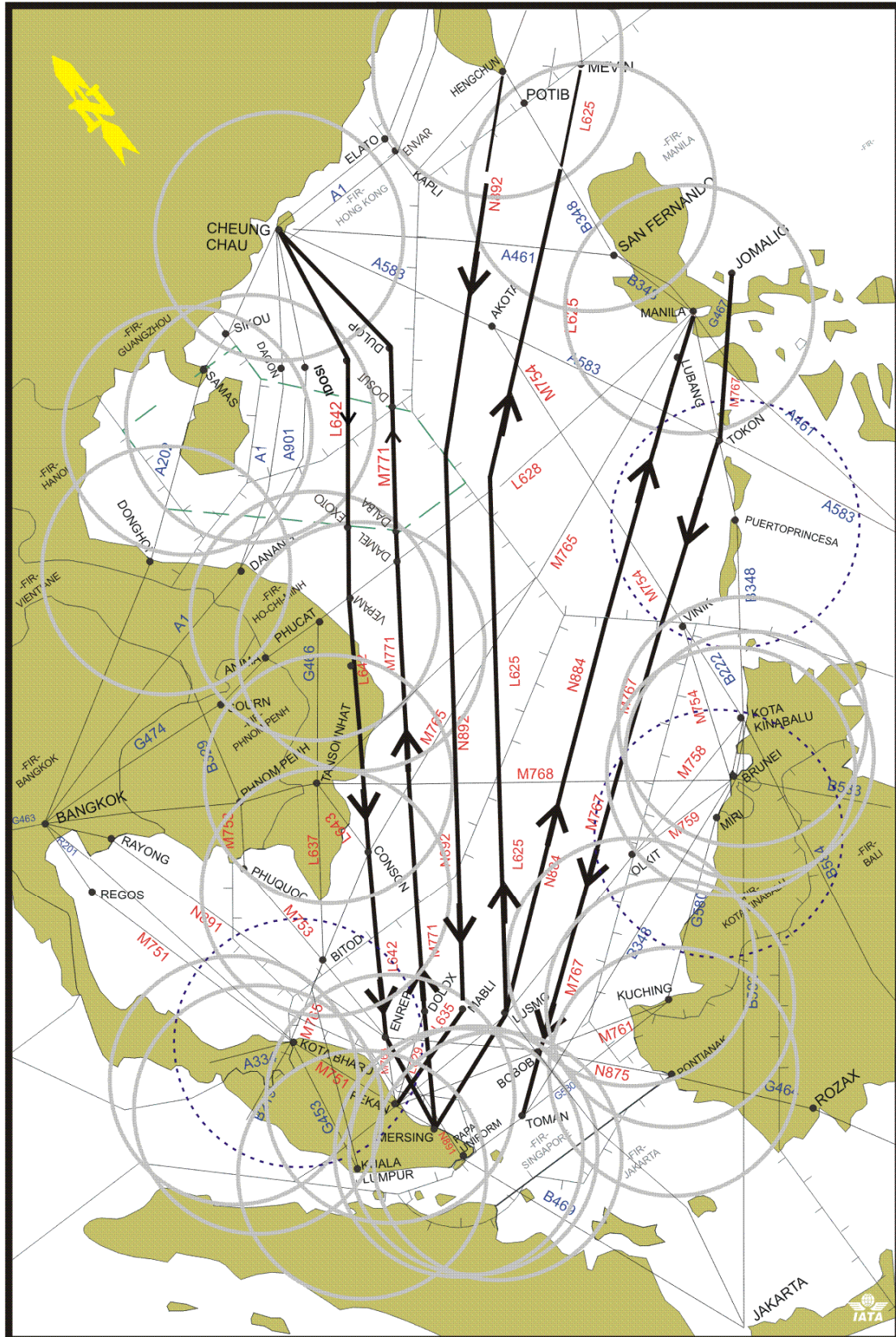
FLIMSIES

NUMBER	AGENDA	TITLE	PRESENTED BY
1	2, 9	Review of SEACG/10	Secretariat
2	2	Draft Parallel Unidirectional Radar Tracks between Bangkok and Pearl River Delta Airports and Beyond	IATA

.....

IATA - Parallel unidirectional radar tracks between Bangkok & PRD airports and beyond





Radar Coverage in the South China Sea
(Appendix H to the Report of SEACG/10).
Please note that the dotted lines represent future radar coverage.

SEACG/13
Appendix F to the Report

Status of Application of Radar Handover in South East Asia

FIR/AOR	Bangkok	Guangzhou	Hanoi	Ho-Chi-Minh	Hong Kong	Jakarta	Kota Kinabalu	Kuala Lumpur	Manila	Fukuoka	Phnom Penh	Sanya	Singapore	Taipei	Ujung Pandang	Vientiane
Bangkok		N/A	N/A	YES	N/A	N/A	N/A	YES	N/A	N/A	YES	N/A	N/A	N/A	N/A	YES
Guangzhou	N/A		TBD	N/A	NO	N/A	N/A	N/A	N/A	N/A	N/A	TBD	N/A	N/A	N/A	N/A
Hanoi	N/A	TBD		YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	N/A	N/A	N/A	YES
Ho-Chi-Minh	YES	N/A	YES		N/A	N/A	N/A	N/A	N/A	N/A	YES		NO	N/A	N/A	NO
Hong Kong	N/A	NO	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	N/A	N/A
Jakarta	N/A	N/A	N/A	N/A	N/A				N/A	N/A	N/A	N/A	NO	N/A	N/A	N/A
Kota Kinabalu	N/A	N/A	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A	NO	N/A	N/A	N/A
Kuala Lumpur	YES	N/A	N/A	N/A	N/A				N/A	N/A	N/A	N/A	YES	N/A	N/A	N/A
Manila	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		NO	N/A	N/A	NO	YES	N/A	N/A
Fukuoka	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		NO	N/A	N/A	N/A	YES	N/A	N/A
Phnom Penh	YES	N/A	N/A	YES	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	NO
Sanya	N/A	NO	YES		N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A
Singapore	N/A	N/A	N/A	NO	N/A	NO	NO	YES	NO	N/A	N/A	N/A		N/A	N/A	N/A
Taipei	N/A	N/A	N/A	N/A	YES	N/A	N/A	N/A	YES	YES	N/A	N/A	N/A		N/A	N/A
Ujung Pandang	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A
Vientiane	YES	N/A	YES	NO	N/A	N/A	N/A	N/A	N/A	N/A	NO	N/A	N/A	N/A	N/A	

SEACG/13 — ACTION PLAN

IMMEDIATE: Action to be taken immediately after the conclusion of the meeting

MID TERM: Action to be taken within six months

LONG TERM: Action to be taken within one year

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
1.	<p>Traffic Sample Data (TSD) to be collected for RVSM and RNP 10 safety assessments</p> <p>As well as traffic sample data on the SCS parallel routes, sample data is required for the crossing routes to facilitate analysis of intersecting traffic.</p>	IMMEDIATE	All SEA States, Thailand (MAAR)	<p>OPEN</p> <p><u>CLOSED</u></p>	<p>Raised at SEACG/11.</p> <p>TSD required for July 2004 and submitted to MAAR by 1 September 2004.</p> <p><u>MAAR Contact details:</u> Email (preferred): maar@acrothai.co.th Fax: 662 287 8155</p> <p><u>Note: TSD shall be submitted through e mail.</u></p> <p><u>Address:</u> Monitoring Agency for Asia Region (MAAR) ATS Operations Bureau, AEROTHAI 102 Ngamduplee Tungmahamek, Sathorn Bangkok 10120 Thailand.</p> <p>Traffic sample data were still required from some States and this should be provided as soon as possible and not later than end of June 2005.</p>

SEACG/13
Appendix G to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
2.	Preparation and distribution of Traffic Sample Data (TSD) template	IMMEDIATE	Thailand (MAAR)	OPEN <u>CLOSED</u>	Raised at SEACG/11. MAAR and Regional Office to revise the TSD template to include RVSM and RNP requirements and make template available to States. maar@aerothai.co.th
3.	Continuous Provisions of RVSM approval records for all aircraft registered by each State All States to ensure up to date records held on RVSM status of aircraft on respective registers.	IMMEDIATE	All States, MAAR	OPEN <u>CLOSED</u>	Raised at SEACG/11. In addition to State records, RVSM status to be provided by States to MAAR. maar@aerothai.co.th
4.	Continue to provide Large Height Deviation (LHD) reports to MAAR	IMMEDIATE	All States, MAAR	OPEN <u>CLOSED</u>	Raised at SEACG/11. States to ensure LHD reports (including 'NIL' reports) are provided to MAAR in accordance with published reporting requirements. maar@aerothai.co.th
5.	Participation at the RASMAG Safety Seminar	IMMEDIATE	All States	OPEN <u>CLOSED</u>	Raised at SEACG/12. States are urged to attend the RASMAG Safety Seminar scheduled from 8 to 10 June 2005.

SEACG/13
Appendix G to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
6.	<u>Review No-PDC procedure</u>	<u>IMMEDIATE</u>	<u>All States</u>	<u>OPEN</u>	Raised at SEACG 12. States to review the <u>impact of the No-PDC procedures on the provision of more efficient flight levels, and report to SEACG 14</u>
7.	Deficiencies—update APANPIRG Deficiencies Listing	<u>MID TERM</u>	<u>All SEA States, Regional Office</u>	<u>OPEN</u> <u>CLOSED</u>	<p>Raised at SEACG/11.</p> <p>States to check and confirm current status of deficiencies listing and advise Regional Office of amendments.</p> <p>Regional Office will prepare updated listing for APANPIRG/16 (August 2005).</p>
8.	<u>Review FLOS in SCS area</u> Current operations utilise a modified single alternate FLOS in the SCS area, leading to transition areas to/from surrounding single alternate FLOS areas.	<u>MID TERM</u>	<u>All SEA States concerned, MAAR</u>	<u>OPEN</u> <u>CLOSED</u>	<p>Raised at SEACG/11.</p> <p>The SEACG/11 decided that resolving the use of the FLOS was a high priority.</p> <p>The RVSM/TF—FLOS meeting is tentatively planned in January 2006, after the 90-day review of Japan Korea RVSM implementation.</p> <p><u>RVSM/TF/28 agreed that the endeavor to address the concerns expressed by several States should be continued</u></p>

SEACG/13
Appendix G to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
9.	<p>Proposal to establish additional ATS routes for Brunei-Middle East/Europe Flights</p> <p>Brunei Darussalam should discuss the suggested options for shorter routes with Royal Brunei Airlines and advise States, ICAO and IATA on the outcomes. IATA should work with these States to arrive at a viable solution.</p>	MID TERM	Brunei Darussalam, Indonesia, Malaysia, Singapore, Thailand, Viet Nam and IATA	OPEN	<p>Raised at SEACG/10.</p> <p>Based on the development of the ATS Route Catalogue updated at this meeting, States will coordinate with Royal Brunei Airlines with regard to their two route proposals tabled at this meeting.</p> <p>Update provided by Brunei Darussalam at SEACG/12. <u>Brunei and IATA to include the proposals in Chapters 4 and 5, respectively, of the Route Catalogue.</u></p>
10.	<p>Deletion of Requirements for A205 and G580</p> <p>That, Brunei Darussalam and Malaysia coordinate with ICAO for a necessary amendment to Asia/Pacific ANP in order to add the requirement for A205 and amend the requirement for G580 in the Asia/Pacific ANP.</p>	MID TERM	Brunei Darussalam, Malaysia, Regional Office	OPEN	<p>Raised at SEACG/10.</p> <p>Brunei Darussalam was not represented at SEACG/12. Malaysia reported that they would prefer to retain A205, and that the portion of G580 between BRU and VJN was replaced by B348. The Regional Office would coordinate with Brunei to progress this matter.</p> <p>An amendment to the ANP required. Regional Office<u>Brunei Darussalam</u> will coordinate with <u>Malaysia</u> the raising of the ANP amendment.</p>

SEACG/13
Appendix G to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
11.	<p>Review the airspace arrangements for ATS routes and transfer of control points in Viet Nam's airspace</p> <p>Viet Nam and adjacent States concerned should review and coordinate with Regional Office on the airspace arrangements for ATS routes and transfer of control points to improve the efficiency of providing air traffic control services in the Ha Noi and Ho Chi Minh FIRs.</p>	MID TERM	Viet Nam, adjacent States, Regional Office	OPEN <u>CLOSED</u>	<p>Raised at SCS/TF/8.</p> <p>The SEACG/11 meeting clarified that the main issue was in regard to weather deviation on L628 and Viet Nam requested that this matter required further consideration at the next meeting. The meeting agreed to keep this item open</p> <p>SCM/3 discussed the matter. Further coordination should be considered to resolve the issues.</p>
12.	<p>Standardise lower limits of RNP routes in the SCS Route Structure and establish RNAV routes beneath</p> <p>Apply standard lower limit of FL 285 wherever possible across RNP10 routes.</p> <p>Establish RNAV routes beneath RNP routes where required.</p>	MID TERM	All SEA States, IATA	OPEN <u>CLOSED</u>	<p>Raised at SEACG/11.</p> <p>RNAV routes to accommodate non RNP10 aircraft to be established under existing SCS RNP10 routes with upper limit at FL285 where possible and required.</p> <p>Arrangements to be kept under review, changes subject to safety assessment.</p> <p>Hong Kong, China to prepare draft AIP supplement and circulate to States and IATA for comment. All States should adopt the same wording.</p>

SEACG/13
Appendix G to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
13.	Realignment studies A1/P901	LONG TERM	Cambodia, China, Hong Kong China, Viet Nam and IATA	OPEN	<p>Raised at SEACG/12</p> <p>China updated progress. Studies were not expected to be completed for a considerable time due to technical problems with the airspace structure in the area.</p> <p><u>China submitted the proposal to ATM/AIS/SAR/SG/15.</u> <u>States and users to review and provide feedback.</u></p>
14.	Implementation of lateral offset procedures	MID TERM	All States, Regional Office	OPEN CLOSED	<p>Raised at SEACG/11.</p> <p>To be actioned by all States following publication of revised ICAO guidelines for 2 NM offset procedures.</p> <p>States to consider permitting lateral offset procedures to be applied in radar airspaces at the discretion of ATC, and/or specify routes transiting radar airspace where offsets may be applied.</p>
15.	Establishment of Safety Monitoring Agency (SMA) for Asia Region	MID TERM	MAAR Regional Office	OPEN	<p>Raised at SEACG/11.</p> <p>MAAR provided details on planning to establish an SMA for the South-East Asia area.</p> <p><u>MAAR to progress this matter and report progress to SEACG/14.</u></p>

SEACG/13
Appendix G to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
16.	Establishment of Central Reporting Agency (CRA) for FIT South-East Asia	MID TERM	Japan	OPEN <u>CLOSED</u>	<p>Raised at SEACG/11.</p> <p>CRA Japan offered at FIT-SEA/2 to provide CRA services for the SCS area. States to indicate their support and Regional Office to coordinate with States and report to FIT-SEA/3 and SEACG/13.</p>
16.	Update on ADS/CPDLC implementation planning	MID TERM	FIT-SEA	OPEN	<p>Raised at SEACG/11.</p> <p>States to update ATM/AIS/SAR/SG/15 (25-29 July 2005) SEACG/14 and/or FIT-SEA/4 on their ADS/CPDLC implementation plans with timelines for implementation.</p>
17.	<p>Implementation of radar handover procedures</p> <p>States should identify areas where radar handover procedures can be applied at common FIR boundary, and implement the procedures.</p>	LONG TERM	All SEA States	OPEN	<p>Raised at SEACG/10.</p> <p>The SEACG/11 meeting was advised that many States had introduced radar handover procedures. Some States identified areas where progress was still to be made and agreed to move towards radar handover procedures as soon as possible.</p> <p>States updated <u>the radar coverage/services chart and the matrix presented at SEACG/10 on procedures implemented with adjacent States.</u></p> <p><u>States to implement radar handover procedures, where possible. Report to SEACG/14.</u></p>

SEACG/13
Appendix G to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
18.	Implementation of RNP 10 and RNP 4 routes and reduced horizontal separation of 50 NM and 30 NM respectively	LONG TERM	RNP-SEA/TF	OPEN	<p>Raised at SEACG/11.</p> <p>Ongoing implementation of RNP 10 routes as required and introduction of 50 NM separation.</p> <p>Identify areas suitable for RNP 4 and reduction of en-route separation to 30 NM.</p> <p><u>RNP-SEA/TF to undertake study of implementation.</u></p>
19.	<p>A202 metric cruising levels transition</p> <p>Consideration should be given to an alternate arrangement to the metric cruising level system for operations on A202 to facilitate flights with ceiling limitations.</p>	LONG TERM	China, Hong Kong China	OPEN	<p>Raised at SEACG/10.</p> <p>China would consider this issue in its RVSM Implementation Plan.</p>
20.	Implementation of ADS-B	LONG TERM	All States	OPEN	<p>Raised at SEACG/11.</p> <p>States to identify areas for ADS-B implementation and to notify users by AIC at earliest opportunity, and report to SEACG/14 for further action.</p>

SEACG/13
Appendix G to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
21	Study on the <u>Need of an ATM automated system for the SEA area including ATFM capability</u>	LONG TERM	SEA States IATA	OPEN	<p>Raised at SEACG/12. <u>IATA reported that the No-PDC procedures were often being used too rigidly and some departing flights ended up unable to operate at more optimum levels.</u></p> <p>States to consider requirements to provide ATM automated systems and update SEACG/13.</p> <p><u>IATA to provide SEACG/14 with more information on the problem regarding the use of No-PDC for further study by States.</u></p>
22	Provision of contact person for study of ATM automation system development	LONG TERM	All States	OPEN	<p>Raised at SEACG/12. <u>SEACG/12 agreed that the SEACG States should study the need for an ATFM system and consideration should be given to include requirements for ATFM in their ATM development plans.</u></p> <p>States to provide contact person for the study of development and ATFM for SEA area.</p> <p><u>States to review the outcome of the Action Item 21.</u></p>
23.	<p>Expansion of RVSM flight level band</p> <p>ICAO should study the expansion of the RVSM flight level band to accommodate increasing number of aircraft requiring to operate above FL 410.</p>	LONG TERM	ICAO	<p>OPEN <u>CLOSED</u></p>	<p>Raised at SEACG/12</p> <p>Regional Office to inform ICAO Headquarters to look into this matter and report back to SEACG/13</p>

SEACG/13
Appendix G to the Report

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
24.	Review and implementation of the requirements included in the Route Catalogue	LONG TERM	All States	OPEN <u>CLOSED</u>	<p>Raised at SEACG/12.</p> <p>States to review the requirements in the Route Catalogue and consider implementations.</p> <p>Report to SEACG/13</p>
25.	Provision of guidance on testing and retraining to meet the ICAO language proficiency requirement	LONG TERM	Regional Office	OPEN <u>CLOSED</u>	<p>Raised at SEACG/12.</p> <p>Regional Office to provide guidance on testing and retraining to meet ICAO language proficiency requirement.</p> <p>Report to SEACG/13.</p>
26.	<u>Study of the Parallel Unidirectional Routes between Bangkok and Hong Kong, China as a replacement of A1 and P901</u>	LONG TERM	China, Hong Kong China, Viet Nam, Lao PDR and Thailand	OPEN	<p><u>Raised at SEACG/13.</u></p> <p><u>IATA requested that the parallel unidirectional routes to replace A1 and P901 be considered to increase capacity.</u></p> <p><u>States to study the realignment of A1 and P901 or the establishment of the parallel routes, and report to SEACG/14.</u></p>

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

(Changes proposed after APANPIRG/16 are shown in strikeout and <u>underlining</u> .)								
Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
<u>ATS Routes</u>								
Requirements of Part VIII, Table ATS 1 of the Air Navigation Plan	India/Nepal	A473 - Not implemented	16/3/99	A new proposal was submitted in mid 2003 by Nepal. This is being coordinated by AAI with defense authorities.	India/Nepal - implement the route	India/Nepal	Item captured in Chapter 2 of the Route Catalogue.	B
	China	B591 - Partially implemented	22/7/97		China will consider for future implementation.	China	TBD Reviewed by ARNR/TF. Item captured in Chapter 2 of the Route Catalogue	B
	Indonesia	G461 - Implemented with different route specification	24/11/93	ICAO co-ordinated with Indonesia to amend BANP requirement. APAC00/1-ATS was approved on 15 January 2001.	Indonesia-implement the requirement accordingly.	Indonesia	Implemented with different route specification. Amendment Proposal to be submitted. Captured in Chapter 3 of the Route Catalogue.	B
	Cambodia/Philippines/Thailand/Viet Nam	G473 - Partially implemented	24/11/93	Co-ordination is in progress among States and ICAO.	ICAO - continue implementation co-ordination.	Cambodia /Philippines Thailand/Viet Nam/ICAO	Captured in Chapter 2 of the Route Catalogue.	B

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	China/Kazakhstan	R216 - Not implemented	24/11/93	CAAC advises current route B215 KUQA A460 REVKI to Alma Ata meets the requirements for traffic from Urumqi to Alma Ata and requests deletion of R216 from BANP (14 Apr 03).	CAAC will coordinate with Kazakhstan to delete R216 from BANP.	China/Kazakhstan ICAO	Captured in Chapter 2 of the Route Catalogue.	B
	Cambodia/Lao PDR/Thailand	R345 - Not implemented. <u>Under the coordination process.</u>	24/11/93	Cambodia has advised that the requirement is no longer valid and will propose the deletion of requirement in consultation with Lao PDR and Thailand.	Cambodia- coordinate the deletion with IATA as well as Lao PDR and Thailand	Cambodia/Lao PDR/ Thailand	<u>Item</u> captured in Chapter 2 of the Route Catalogue.	B
	Indonesia	R459 - Implemented as W51 and W36	24/11/93	ICAO has requested Indonesia to implement as R459.	Indonesia, Singapore - consider implementation of the route with designator L504.	Indonesia/Singapore	To be implemented as L504. Target implementation date TBD	B

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
<u>WGS-84</u>								
Requirements of Paragraph 3.6.4 of Annex	Bhutan	WGS-84 - Not implemented	2/7/1999	Data conversion completed, but not published		Bhutan	TBD	A
	Cambodia	WGS-84 - Partially implemented	28/6/2001	Cambodia reported ICAO on 22 June 2004 that the WGS-84 coordinates have been implemented in international airports, airspace and international routing.		Cambodia	TBD	A
	China	WGS-84 - Not implemented * implemented in the Sanya AOR as of 1 Nov 2001	2/7/1999	Differences to Annex 15 - <i>Aeronautical Information Services</i> are notified		China	<u>Planning in progress</u>	A
	DPR Korea	WGS-84 - Not implemented				DPR Korea	2004	A
	Kiribati	WGS-84 - Not implemented				Kiribati	TBD	A
	Nauru	WGS-84 - Not implemented		Conferring with consultant		Nauru	TBD	A
	Philippines	WGS-84 - Implemented at main international airports		on-going		Philippines	2006	A
	Solomon Islands	WGS-84 - Not implemented				Solomon Islands	1999	A
	Vanuatu	WGS-84 - Implemented at main airports	2/7/1999			Vanuatu	1999	A

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
Type of ATS								
Requirements of Part II, Table ATS 3D of the air navigation plan	India	Some ATS route segments in part of Mumbai FIR are subject to Advisory Services	24/11/93	Co-ordination in progress through BBACG. HF radio being modernized and datalink being installed.	India - implement Area Control Services	India	Modernization of HF radio by the end of 2004 CPDLC by the end of 2005	A

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
<u>Airspace Classification</u>								
Requirements of Paragraph 2.6 of Annex 11	China	Airspace Classification - Not implemented	7/7/99		Difference to Annex 11 is published in AIP, China.	China		A
	Cook Islands	Airspace Classification - Not implemented	7/7/99			Cook Islands	TBD	A
	DPR Korea	Airspace Classification - Not implemented	7/7/99			DPR Korea	2005	A
	Japan	Airspace Classification - Partially implemented	2/19/04		Implementation in oceanic airspace in progress	Japan	Domestic airspace complete, final stage of oceanic airspace classification done on AIRAC 29 September 2005	A
	Kiribati	Airspace Classification - Not implemented	7/7/99			Kiribati	TBD	A
	Nauru	Airspace Classification - Not implemented	7/7/99			Nauru	TBD	A
	Papua New Guinea	Airspace Classification - Not implemented	7/7/99			Papua New Guinea	Project in place	A
	Samoa	Airspace Classification - Not implemented	7/7/99		C'TR C and D Samoa Sector Class G	Samoa	Completed Official confirmation required	A
	Solomon Islands	Airspace Classification - Not implemented	7/7/99			Solomon Islands	TBD	A
	Viet Nam	Airspace Classification - Not implemented	7/7/99			Viet Nam	Some work is being carried out, expected completion 2006	A

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date 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	TBD	A
	Kiribati	AIP Format - Not implemented	7/7/99			Kiribati		A
	Lao PDR	AIP Format - Not implemented	7/7/99			Lao PDR	<u>Completed</u>	A
	Nauru	AIP Format - Not implemented	7/7/99			Nauru		A
	Papua New Guinea	AIP Format - Not implemented	7/7/99	under development		Papua New Guinea	TBA	A
	Samoa	AIP Format - Not implemented	7/7/99			Samoa	5/15/2003 (to be confirmed)	A
<u>SAR capability</u>								
Requirements of Annex 12	Cambodia	Annex 12 requirements implemented.	20/2/97		Cambodia - implement Annex 12 requirements and co-ordinate LOA with adjacent States ICAO - assist to develop SAR capability and to co-ordinate with adjacent States	Cambodia	SAR agreement established with Viet Nam during 2004/05 <u>Completed</u>	U
	Cook Islands	Annex 12 requirements not implemented. No agreements with adjacent States.	31/1/95	SAR agreement with New Zealand under development	Cook Islands - implement Annex 12 requirements and co-ordinate LOA with adjacent States ICAO - assist to develop SAR capability and to co-ordinate with adjacent States	Cook Islands	2004	U

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Maldives	Annex 12 requirements not implemented. No agreements with adjacent States.	24/4/97	SAR services and facilities provided (details to be confirmed). SAR agreements with neighbouring States under development	Maldives - implement Annex 12 requirements and co-ordinate LOA with adjacent States ICAO - assist to develop SAR capability and to co-ordinate with adjacent States	Maldives	2004	U
<u>Carriage of ACAS II</u>								
Requirement of Chapter 6 of Annex 6	Bhutan	Annex 6 requirement not implemented.	26/8/05		Bhutan - implement Annex 6 as required.	Bhutan	TBD	U
	Cook Islands	Annex 6 requirement not implemented.	26/8/05		Cook Island - implement Annex 6 as required.	Cook Islands	TBD	U
	Fiji	Annex 6 requirement not implemented.	26/8/05		Fiji - implement Annex 6 as required.	Fiji	TBD	U
	Kiribati	Annex 6 requirement not implemented.	26/8/05		Kiribati - implement Annex 6 as required.	Kiribati	TBD	U
	Marshall Islands	Annex 6 requirement not implemented.	26/8/05		Marshall Islands - implement Annex 6 as required.	Marshall Islands	TBD	U
	Micronesia	Annex 6 requirement not implemented.	26/8/05		Micronesia - implement Annex 6 as required.	Micronesia	TBD	U
	Nauru	Annex 6 requirement not implemented.	26/8/05		Nauru - implement Annex 6 as required.	Nauru	TBD	U
	Palau	Annex 6 requirement not implemented.	26/8/05		Palau - implement Annex 6 as required.	Palau	TBD	U

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Papua New Guinea	Annex 6 requirement not implemented.	26/8/05		Papua New Guinea - implement Annex 6 as required.	Papua New Guinea	TBD	U
	Philippines	Annex 6 requirement not implemented.	26/8/05		Philippines - implement Annex 6 as required.	Philippines	TBD	U
	Solomon Islands	Annex 6 requirement not implemented.	26/8/05		Solomon Islands - implement Annex 6 as required.	Solomon Islands	TBD	U
	Tonga	Annex 6 requirement not implemented.	26/8/05		Tonga - implement Annex 6 as required.	Tonga	TBD	U
	Vnuatu	Annex 6 requirement not implemented.	26/8/05	Pressure altitude reporting transponder required in all airspace since 1/1/00.	Vanuatu - implement Annex 6 as required.	Vanuatu	TBD	U
<u>Carriage of Pressure Altitude Reporting Transponder</u>								
Requirement of Chapter 6 of Annex 6	Bangladesh	Annex 6 requirement not implemented.	26/8/05	ACAS II required since 1/1/03.	Bangladesh - implement Annex 6 as required.	Bangladesh	TBD	U
	Bhutan	Annex 6 requirement not implemented.	26/8/05		Bhutan - implement Annex 6 as required.	Bhutan	TBD	U
	Cambodia	Annex 6 requirement not implemented.	26/8/05	ACAS II required in all airspace within FIR since 1/1/03.	Cambodia - implement Annex 6 as required.	Cambodia	TBD	U
	Cook Islands	Annex 6 requirement not implemented.	26/8/05		Cook Island - implement Annex 6 as required.	Cook Islands	TBD	U
	DPR Korea	Annex 6 requirement not implemented.	26/8/05	ACAS II required in all airspace within FIR since 1/1/01.	DPR Korea - implement Annex 6 as required.	DPR Korea	TBD	U

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Fiji	Annex 6 requirement not implemented.	26/8/05		Fiji - implement Annex 6 as required.	Fiji	TBD	U
	New Caledonia	Annex 6 requirement not implemented.	26/8/05	ACAS II required in all airspace within FIR since 23/1/03.	New Caledonia - implement Annex 6 as required.	New Caledonia	TBD	U
	Kiribati	Annex 6 requirement not implemented.	26/8/05		Kiribati - implement Annex 6 as required.	Kiribati	TBD	U
	Lao PDR	Annex 6 requirement not implemented.	26/8/05	ACAS II required in all airspace within FIR since 1/1/03.	Lao PDR - implement Annex 6 as required.	Lao PDR	<u>Completed</u>	U
	Marshall Islands	Annex 6 requirement not implemented.	26/8/05	ACAS II required.	Marshall Islands - implement Annex 6 as required.	Marshall Islands	TBD	U
	Micronesia	Annex 6 requirement not implemented.	26/8/05		Micronesia - implement Annex 6 as required.	Micronesia	TBD	U
	Nauru	Annex 6 requirement not implemented.	26/8/05		Nauru - implement Annex 6 as required.	Nauru	TBD	U
	Palau	Annex 6 requirement not implemented.	26/8/05		Palau - implement Annex 6 as required.	Palau	TBD	U
	Papua New Guinea	Annex 6 requirement not implemented.	26/8/05		Papua New Guinea - implement Annex 6 as required.	Papua New Guinea	TBD	U
	Philippines	Annex 6 requirement not implemented. <u>Implemented within TMA only.</u>	26/8/05		Philippines - implement Annex 6 as required.	Philippines	TBD	U

SEACG/13
Appendix H to the Report

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Solomon Islands	Annex 6 requirement not implemented.	26/8/05		Solomon Islands - implement Annex 6 as required.	Solomon Islands	TBD	U
	Tonga	Annex 6 requirement not implemented.	26/8/05		Tonga - implement Annex 6 as required.	Tonga	TBD	U

APANPIRG/16 List of Conclusions

Conclusion 16/2	<p>Funding arrangements for regional airspace safety monitoring</p> <p>That, a study group be convened to develop a feasible and sustainable proposal to equip States to organize and finance necessary safety monitoring mechanisms for the provision of safety services for the international airspaces in the Asia/Pacific region and that States be represented at that meeting by their appropriate legal, financial and organizational experts who would be best equipped and empowered to resolve any difficulties. The study group should report to RASMAG not later than the end of June 2006.</p>
Conclusion 16/3	<p>Large Height Deviations – Western Pacific/South China Sea area</p> <p>That, in noting the prevalence of RVSM large height deviation occurrences in the Western Pacific/South China Sea area, the Regional Office draw the attention of all States concerned to identify and put in place remedial actions to mitigate such significant errors on an urgent basis.</p>
Conclusion 16/4	<p>Traffic Sample Data Collection</p> <p>That, States be advised by the Regional Office that December every year had been adopted for the routine collection of 30 days of traffic sample data to satisfy airspace safety monitoring requirements</p>
Conclusion 16/5	<p>Non-implementation of reduced separation unless compliant with Annex 11</p> <p>That, recognizing that some States had not adequately complied with safety management provisions, the Regional Office advise States of the Asia/Pacific Region that further regional implementation of reduced separation minima should only proceed in circumstances where implementing States can demonstrate an ability to comply with Annex 11, Chapter 2, safety management provisions for the continuous monitoring and regular assessment of the safety level achieved.</p>
Conclusion 16/6	<p>Non-provision of safety related data by States</p> <p>That the Regional Office advise that States not providing safety related data to approved regional safety monitoring agencies, including RMAs, in accordance with the requirements of safety monitoring agencies will be included in the APANPIRG List of Deficiencies in the ATM/AIS/SAR fields.</p>
Conclusion 16/7	<p>Deletion of ATS Routes from the APANPIRG List of Deficiencies</p> <p>That, the ATS routes in the APANPIRG List of Deficiencies, which are no longer applicable to the List as a result of revision of ATS route network and have been incorporated in the <i>Asia/Pacific ATS Route Catalogue</i>, be deleted from the APANPIRG List of Deficiencies in the ATM/AIS/SAR fields.</p>
Conclusion 16/10	<p>Review of ATS Route Catalogue by States</p> <p>That, the States concerned study the routes in the <i>Asia/Pacific ATS Route Catalogue</i> in respect to the feasibility of the route requirements, in order to consider their implementation with appropriate priorities, and to raise route implementation proposals at relevant ATS Coordination Meetings in the Asia/Pacific Region.</p>
Conclusion 16/12	<p>Implementation of 30/30 NM Separation Minima</p> <p>That, recognizing the comprehensive planning and implementation processes, especially in regard to safety management practices, adopted by ISPACG to implement 30 NM lateral and 30 NM longitudinal separation minima in specific airspace in the Pacific Region, States be advised by letter from the Regional Office to use this as a model in implementing reduced separation applications.</p>

SEACG/13
Appendix I to the Report

Conclusion 16/13	<p>ATM Contingency Planning for Volcanic Ash Cloud avoidance</p> <p>That, Asia/Pacific States be urged by State Letter from the Regional Office to amend or develop ATM contingency plans, as necessary, that would:</p> <p>a) provide Air Traffic Management policy and coordination procedures that ensure safe and orderly flow of air traffic around areas of volcanic ash;</p> <p>b) promulgate the status of active volcanoes via the colour code system as specified in Annex 15, Aeronautical Information Service, and the Handbook on the International Airways Volcano Watch (Doc 9766); and</p> <p>c) provide templates and a rapid means of disseminating volcanic Ash SIGMETs, ASHTAM's, NOTAM's, Volcanic Ash Advisories and other flight information.</p>
Conclusion 16/15	<p>Special Implementation Project for Development of a State Contingency Plan</p> <p>That, in order to provide a model for States of the Asia/Pacific Region in preparing their national contingency plans, ICAO undertake a special implementation project (SIP) during 2006 to assist a State of the Region to prepare and implement a contingency plan in accordance with Annex 11, Appendix D, and in line with APANPIRG Conclusion 13/8. The SIP should also identify and prioritize other contingency circumstances that may affect civil aviation operations in the ATM context and make recommendations accordingly.</p>
Conclusion 16/17	<p>Equitable Sharing by Civil and Military Users</p> <p>That, noting that effective coordination between civil and military agencies was essential, States of the Asia Pacific Region be advised by State Letter on the need to adopt the principle of the <i>equitable sharing of both convenience and inconvenience</i> in the use of airspace and facilities by civil and military users.</p>
Conclusion 16/18	<p>Assistance to States to develop safety management systems</p> <p>That, recognizing that many States in the Asia/Pacific Region require assistance to implement safety management programmes in accordance with Annex 11, States with expertise in implementing and operating ICAO compliant safety management systems inform ICAO by end of 2005 of their willingness to participate in a series of seminars/workshops to be arranged by ICAO during 2006-2007 to assist States.</p>
Conclusion 16/19	<p>Study of States' preparedness to implement safety management systems</p> <p>That, a study of States' preparedness to implement ICAO safety management systems in accordance with Annex 11 be undertaken by the Asia/Pacific Regional Office in conjunction with the ATS coordination groups and RASMAG by the first quarter of 2006, and a plan of action developed to be reported to APANPIRG/17 in September 2006.</p>
Conclusion 16/20	<p>Guidance Material for End-to-End Safety and Performance Monitoring of Air Traffic Service (ATS) Data Link Systems in the Asia/Pacific Region</p> <p>That the <i>Guidance Material for End-to-End Safety and Performance Monitoring of Air Traffic Service (ATS) Data Link Systems in the Asia/Pacific Region</i>, as shown in Appendix B to the Report on Agenda Item 2.1, be circulated as regional guidance material by the Regional Office, in accordance with established procedures.</p>

SEACG/13
Appendix I to the Report

Conclusion 16/21	<p>Status of compliance with Language Proficiency requirements</p> <p>That, the Regional Office urgently conduct a survey of all Asia/Pacific States for the purposes of ascertaining States' circumstances in respect of compliance by March 2008 with ICAO provisions in respect of Operational Level 4 language proficiency.</p>
Conclusion 16/22	<p>Recommendations of the ICAO SAR Seminar and SAREX held at Chennai, India</p> <p>That, the recommendations made by the ICAO SAR Seminar and SAREX held at Chennai, India on 7-11 March 2005, as shown in Appendix D to the report on Agenda Item 2.1, be disseminated by ICAO Regional Office to the States and International Organizations of the Asia and Pacific Region.</p>
Conclusion 16/23	<p>Special Implementation Project International Seminar and SAREX</p> <p>That, ICAO consider a proposal for an Asia/Pacific Special Implementation Project to be established with the primary objective to improve search and rescue services, coordination and cooperation between island States of the Pacific.</p>
Conclusion 16/36	<p>ADS-B Implementation and Operational Guidance Document (AIGD)</p> <p>That, the ADS-B Implementation and Operational Guidance Document as provided in Appendix G to the Report on Agenda Item 2.2 be adopted and circulated to States in the Asia/Pacific Region and International Organizations.</p>
Conclusion 16/53	<p>Regional Contingency Arrangement in support to continuity of aviation operations in the events of natural disasters or other crisis situations</p> <p>That,</p> <p>a) Asia/Pacific States be invited to provide data to the ICAO Regional Office regarding availability of resources and services which could be readily made available in the event of natural disaster and other crisis situations to the States in need and to support international humanitarian relief operations involving aviation;</p> <p>b) Based on the data received from the States, ICAO Regional Office develop a catalogue and act as a facilitator and coordinator of the international aviation operations in response to disasters and other crises. The catalogue would provide details regarding contact points, general description of facilities and services available and arrangements under which services would be provided (i.e. government to government, commercial, humanitarian, etc.); and</p> <p>c) States consider implementing RNAV (GNSS) approaches procedures as an alternate to ground-based radio navaids in particular for areas prone to natural disasters, such as tsunamis, tropical cyclones, volcanic eruptions, etc.</p>
Conclusion 16/57	<p>Workshop on Fuel Savings Measures</p> <p>That, ICAO consider arranging a workshop for Asia/Pacific States in 2006 that focuses on best practices for achieving fuel efficiencies in airport, TMA and en-route environment.</p>
Conclusion 16/61	<p>UAV Operation</p> <p>That, ICAO develop, as a priority, appropriate provisions and guidance material for the operation of UAV.</p>
Conclusion 16/62	<p>State focal point for safety-related activities</p> <p>That, Asia/Pacific States notify to the Regional Office by the first quarter of 2006 a responsible contact officer or position to act as a focal point for safety related activities and in particular for the submission and coordination of ATS incident reports.</p>

SEACG/13
Appendix I to the Report

APANPIRG/16 List of Decisions

Decision 16/1	<p>Safety Monitoring Agency (SMA)</p> <p>That, the term Safety Monitoring Agency (SMA) be used to describe an organization approved by regional agreement to provide airspace safety monitoring and implementation services for international airspace in the Asia/Pacific region for implementation and operation of reduced horizontal separation.</p>
Decision 16/8	<p>To Discontinue the Development of ATS Route Master Database</p> <p>That, as the ATS route data required was provided in the <i>Asia/Pacific ATS Route Catalogue</i> and was available from other sources, the development of the ATS Master Database by the Asia and Pacific Regional Office be discontinued.</p>
Decision 16/9	<p>Acceptance of the Asia/Pacific ATS Route Catalogue</p> <p>That, the <i>Asia/Pacific ATS Route Catalogue</i> as shown in Appendix A to the Report on Agenda Item 2.1 be accepted as a regional planning tool and be maintained and updated on regular basis.</p>
Decision 16/11	<p>To Disband the ARNR Task Force</p> <p>That, as the ARNR/TF had completed the tasks assigned by APANPIRG/14, and all outstanding issues have been identified and follow up actions completed or assigned to other ATS coordination groups as appropriate, the ARNR Task Force be disbanded.</p>
Decision 16/14	<p>Contingency Plans on ATS Coordination Group Agendas</p> <p>That, the development of State Contingency Plans be included as an item on the agenda of State ATS coordination meetings.</p>
Decision 16/16	<p>Civil Military Coordination</p> <p>That, “Civil Military Coordination” be included as an item on the agendas and/or task lists of regional ATS Coordination Groups.</p>
Decision 16/58	<p>Amendment to the Regional Plan for the CNS/ATM System to include ADS-B</p> <p>That the ASIA/PAC Regional Plan for the New CNS/ATM System be amended to include ADS-B element for the surveillance systems as indicated in the Appendix C to the Report on Agenda Item 3.</p>
Decision 16/59	<p>Review of the Regional Plan for the New CNS/ATM System</p> <p>That, the CNS/MET, ATM/AIS /SAR Sub-groups and RASMAG be tasked to review the Global Air Navigation Plan for the CNS/ATM System and the ASIA/PAC Regional Plan for the New CNS/ATM system with a view to avoiding any duplication with the updated Global Plan. The work should commence immediately after issuance of new edition of the Global Plan.</p>
Decision 16/60	<p>Correlation of Aircraft Identification</p> <p>That, ATM/AIS/SAR and CNS/MET Sub-groups study the use of “aircraft identification” as an unique ‘key’ for correlation between flight plan data and surveillance information considering operational and technical aspects for implementation. The result of study be presented for consideration by APANPIRG/17.</p>

SEACG/13
Appendix J to the Report
Survey on National Contingency Plans
(AP029/05(ATM) dated 15 March 2005)

State/Territory	Do they have any plan?	If no, when will it be completed?	If yes;			Are the procedures of notification by NOTAM provided?	Are there Contingency Planning for Volcanic Ash?	Are resources and services to other States in the event of the natural disaster available?
			does it comply with Annex 11 and ATS Planning Manual?	is there any exchange of contingency plans between States?	is there a history of activation (including exercise) of contingency plans?			
Australia	Yes				Yes			
Bangladesh								
Bhutan								
Cambodia								
China	Yes	31/12/05	No. China is updating its contingency plan and submit it to the Regional Office by the end of 2005.					
Hong Kong,China	Yes		Appropriate action to ensure that adequate air traffic services will continue to be provided to international civil aviation operations in accordance with Annex 11 should be planned.	No	The procedures are all tested on a regular basis, but there has not been any operational implementation.	NOTAM message shall be sent in the event of activation of the Backup ATC Center and Tower. The message format has been prepared.	No	No
Cook Islands								
DPR Korea								
Fiji	Yes		Yes	Yes	Last activation was due to Y2K on 31 December 1999. No exercise of contingency plan was made since then.	Specific procedures relating to the operation of the Contingency Plan are included within the NOTAM templates.	No	No
France (French Polynesia)	Yes		Yes	Yes	No	Specific procedures to issue NOTAM including the NOTAM templates are provided in the plan.	No	No
(New Caledonia)	Yes							
India								
Indonesia								
Japan	Yes		Yes	Yes	Yes, a simulated training is conducted for Tokyo ACC once a year.			
Kiribati								
Lao PDR								

SEACG/13
Appendix J to the Report
Survey on National Contingency Plans
(AP029/05(ATM) dated 15 March 2005)

State/Territory	Do they have any plan?	If no, when will it be completed?	If yes;			Are the procedures of notification by NOTAM provided?	Are there Contingency Planning for Volcanic Ash?	Are resources and services to other States in the event of the natural disaster available?
			does it comply with Annex 11 and ATS Planning Manual?	is there any exchange of contingency plans between States?	is there a history of activation (including exercise) of contingency plans?			
Malaysia	Yes		Yes			Yes		
Maldives	Yes		SLOA should be reviewed to see how longitudinal separation can be established at FL270 on R457 and G465 at MLE.	No	No	No.		
Marshall Islands								
Micronesia, Federated States of								
Mongolia								
Myanmar								
Nauru								
Nepal	Yes		Establishment of a simplified route network needs to be considered.			No		
New Zealand								
Pakistan	Yes		Yes			No		
Palau								
Papua New Guinea								
Philippines								
Republic of Korea	Yes		In Article 14 of the Plan, each aspect should be acutually planned.	Will be offered to adjacent States	No	No		
Samoa								
Singapore	No							
Solomon Islands								
Sri Lanka	Yes		Yes			No		
Thailand	Yes		Yes			No		
Tonga	Yes		Specific plans should be developed.			No		
U.S.A.	Yes		Yes	The FAA would not delegate airspace to other countries.	Last exercise was conducted on 21 October 2004.	No		
Vanuatu	No						Yes	
Viet Nam	No	31/12/05						

Note: Blank indicates that no information has been provided.