INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA AND PACIFIC OFFICE

REPORT OF THE SECOND MEETING OF
ATS ROUTE NETWORK REVIEW TASK FORCE (ARNR/TF/2)

BANGKOK, THAILAND

14 – 18 FEBRUARY 2005

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

Published by the ICAO Asia and Pacific Office, Bangkok

Page

History of the Meeting

Report on Agenda Items

Appendices

……

1.1 Introduction

1.1.1 The Second Meeting of the ATS Route Network Review Task Force (ARNR/TF/2) was held at the Kotaite Wing of the ICAO Asia and Pacific Regional Office in Bangkok, Thailand from 14 to 18 February 2005.

1.2 Attendance

1.2.1 The meeting was attended by 46 participants from Bangladesh, Cambodia, China, Hong Kong China, India, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand, United States, Viet Nam, IATA and IFALPA. A complete list of participants is at **Appendix A** to this Report (to facilitate coordination, points of contact of each State and international organization are indicated by underlining).

1.3 Officers and Secretariat

1.3.1 Mr. Peter Leung, Chief Air Traffic Control Officer, Civil Aviation Department, Hong Kong, China, continued as Chairman of the Task Force. Mr. Kyotaro Harano, Regional Officer ATM, ICAO Asia and Pacific Office, Bangkok served as the Secretary for the meeting. He was assisted by Mr. David J. Moores, Regional Officer ATM.

1.4 Opening of the Meeting

1.4.1 Mr. Peter Leung, the Chairperson, warmly welcomed the delegates and provided a brief summary on the outcome from the First Meeting of the ARNR Task Force. He briefly introduced the *Asia and Pacific ATS Route Catalogue* and advised that the Catalogue should form the basis of our future work. It would be a living document to supplement the *Basic Air Navigation Plan* (BANP, Doc 9673) which at this stage was not up-to-date. He thanked all the delegates for the effort that had been put in so far.

1.4.2 Mr. Kyotaro Harano, on behalf of Mr. Lalit B. Shah, ICAO Regional Director of the Asia and Pacific Office warmly welcomed the delegates. Mr. Harano advised that this Task Force was established by the Fourteenth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/14) in 2003 under the ATM/AIS/SAR Sub-Group. The last major exercise to review the ATS route network was carried out by the Third Regional Air Navigation Meeting (RAN/3) in 1993. Since then many changes had occurred to the Asia/Pacific Air Navigation Plan (ANP) (Doc 9673). The document itself was reformatted by the ICAO Council in 1997 into two volumes: the BANP and the *Facilities and Services Implementation Document* (FASID). It was expected that this Task Force would bring the BANP up to date as well as identify and progress future route requirements.

1.4.3 Mr. Harano also advised that the ARNR/TF/1 meeting (September 2004, Bangkok) reviewed the APANPIRG/15 List of Deficiencies in regard to routes, and States updated information on action taken or proposed. As updating the List of Deficiencies is an ongoing process, the meeting would be expected to review the actions taken after the ARNR/TF/1 meeting and update the list to be presented to the ATM/AIS/SAR/SG/15. The ARNR/TF/1 meeting had noted that the format used by IATA to present its route requirements was useful and agreed that this would be an ideal way to compile and collate the list of routes, and the meeting was expected to finalize the Route Catalogue it is developing based on this format.

1.5 **Documentation and Working Language**

1.5.1 The working language of the meeting as well as all documentation was in English.

1.5.2 Twelve (12) Working Papers and two (2) Information Papers were presented to the meeting. A list of papers is included at **Appendix B** to this Report.

……

Agenda Item 1: Adoption of Provisional Agenda

1.1 The meeting reviewed the provisional agenda presented by the Chairman and adopted it as the agenda for the meeting. The agenda is at **Appendix C** to this report.

Agenda Item 2: Review the ATS route network of the Asia and Pacific region as described in the Basic Air Navigation Plan (BANP, Doc 9673, 1st Edition dated 2001)

Publication of the Asia/Pacific Air Navigation Plan

2.1 The meeting noted that the publication of the Air Navigation Plan in hard-copy format was last issued in 1996. In 1997, the ICAO Council approved the current style of two volumes, i.e. the BANP and the *Facilities and Services Implementation Document* (FASID). The meeting was informed that the First Edition of the BANP was finalized in 2001 but had not yet been published in hard-copy format.

2.2 The meeting was advised by the Secretariat that 12 amendment proposals had been developed and 4 of the proposals had been approved after the finalization of the First Edition of the BANP in 2001. The current status of the 12 amendment proposals, which have not been incorporated in the BANP is provided in **Appendix D** to this report.

APANPIRG List of Deficiencies

2.3 The meeting reviewed and updated the APANPIRG List of Deficiencies in respect to ATS routes. The Secretariat advised that subsequent to the review of the ATS route deficiencies at the ARNR/TF/1 meeting, the following progress had been reported to the Regional Office by the States concerned:

a) China and Russia were coordinating to delete the requirement for A218;

b) the missing part of A450 was implemented by the United States effective on 25 November 2004;

c) the Maldives had deleted the requirement for B204, which was not contained in the BANP; and

d) the Asia/Pacific Office was coordinating with the European and North Atlantic Office to change the route designator R466 contained in the APAC BANP to R446 to reflect actual operations in the Russian Federation airspace where the route was located.

2.4 The meeting noted that all routes contained on the APANPIRG List of Deficiencies would be included in the Catalogue and full details would be provided on the status of the routes, action being taken, and regular updates would be provided as appropriate. The meeting considered that the fact that a route was not implemented or partially implemented should not be considered as a deficiency, as the reasons for this were not safety-related. In some cases, the requirement for a route had been established a long time ago and circumstances had since changed. There were also cases that routes could not be implemented for a variety of reasons beyond the capability of the ATS provider to overcome. IATA recognized these problems and where a route was no longer required by users, they would not object to its deletion from the BANP. However, there were other routes that were beneficial to the users, especially in cases of more direct routing, and they would want these retained in the BANP.

2.5 The meeting agreed that the Catalogue fully captured all these circumstances and there was no longer a need to retain them on the List of Deficiencies. Accordingly, it was recommended that APANPIRG/16 should delete them from the List. The updated List of Deficiencies to be presented to the ATM/AIS/SAR/Sub-Group is provided in **Appendix E** to this Report.

Agenda Item 3: Consider route requirements (changes to existing routes and establishment of new routes)

ATS route development

3.1 The meeting noted the major route developments that had been completed such as the revised South China Sea route structure implemented on 1 November 2001 and the Revised ATS Route Structure, Asia to Europe and the Middle East, South of the Himalayas (EMARSSH) implemented on 28 November 2002. These route systems were based on RNAV and RNP 10, which allowed for uni-directional parallel routes and reduced lateral separation of 60 NM and 50 NM respectively. This had significantly improved airspace capacity, operational efficiency and enhanced safety. These measures had previously been implemented extensively in the Pacific Region and further improvements had been achieved by introducing the Dynamic Airborne Route Planning System (DARPS), flexible tracks and reduced horizontal separation to 30 NM using RNP 4 and automatic dependent surveillance (ADS) and controller pilot data link communications (CPDLC).

3.2 The meeting noted that there were valuable lessons learnt from these projects that States should take into account when planning future route developments. The meeting was reminded that the *ATS Planning Manual* (Doc 9426) and the *Manual on Airspace Planning Methodology for the Determination of Separation Minima* (Doc 9689) contained useful guidance material. An extract from those documents is provided in **Appendices F** and **G** to this Report. The meeting encouraged States to make the maximum use of RNAV, RNP and data link systems to enhance airspace capacity.

3.3 With the extensive implementation of RVSM throughout the Asia/Pacific Region since February 2000, considerable overall improvements had been made to the airspaces in this region. The meeting was reminded by the Secretariat that, in parallel with the airspace developments, APANPIRG had established the Regional Airspace Safety Monitoring and Advisory Group (RASMAG) to oversee the airspace safety management activities being undertaken to support implementation and ongoing operations in the international airspaces in the region. It should be noted that any airspace change should be accompanied by an appropriate safety assessment as required under Annex 11 – *Air Traffic Services*. States were reminded that when planning route changes, they need to take into account that a safety assessment was required to be carried out prior to implementing any change to an airspace. They also should inform the designated regional monitoring agency (RMA) for RVSM and safety monitoring agency (SMA) for horizontal separation of any changes likely to impact on the safety assessment that previously had been performed for implementing route systems and reduced separation. A reassessment by these agencies of the these safety assessments, especially in cases where a target level of safety had been established and collision risk model used to determine the safety level, may be necessary as a result of the proposed changes.

Establishment of direct route between Rahim Yar Khan and Kandahar

3.4 The meeting was informed that India in coordination with Pakistan and Afghanistan and the RVSM/TF, had extended P628 from ASOPO in the Mumbai FIR to Rahim Yar Kahn (RK) in the Karachi FIR in January 2003 to improve the traffic flow from South East Asia to Europe. However, the route had not be used much by operators as traffic routed via G452 beyond RK to join

B466/V390, which did not provide sufficient operational and economic benefit to operators to encourage use of P628.

3.5 However, following ongoing discussions with the parties concerned, further improvement was achieved with the implementation on 1 November 2004 of the route segment, G792 from RK to Kandahar in the Kabul FIR. The Coalition Forces Air Component Command (CFACC), the controlling authority for Afghanistan airspace, had given approval for this route to be used from FL 310 to FL 390 between 1901 UTC to 2359 UTC.

3.6 The meeting noted that the extension of G792 did not form part of the EMARSSH routes, which were structured based on RNP 10 requirement. On the other hand, IATA advised that G792 was a conventional route, which had been bilaterally agreed by CFACC and Pakistan. However, the Secretariat advised that Pakistan was accredited to the Middle East Region under the responsibility of the ICAO Middle East Office, but Pakistan's route network comes under the ASIA/PAC BANP. In the case of G792, this route was contained in the MID BANP but not in ASIA/PAC BANP and it had been decided to use this route designator. The meeting agreed that since G792 now extended into Pakistan airspace, this should be included in Chapter 3: Route Implemented – Not in the BANP. The meeting requested the Asia and Pacific Office to coordinate with the Middle East Office on the use of this designator, which was a conventional route designator with a view to establishing it as an RNAV/RNP 10 route.

3.7 IATA advised that the implementation of G792 provided a good alternate route and alleviated traffic delay at South East Asian airports. However, the availability of the route was limited to only four hours from 1901 UTC to 2359 UTC. IATA requested that the timeframe should be extended to bring further benefits. The Regional Office agreed to take this matter up with CFACC and the States concerned.

3.8 The meeting was advised that CFACC had already reviewed the operating hours and further coordination should be carried out with Pakistan to progress the matter. The meeting agreed that the Region Office should take the necessary follow-up action.

New route development in Indian FIRs

3.9 The meeting noted that the 24th Meeting of the RVSM Implementation Task Force (RVSM/TF/24) held on 8-12 November 2004 conducted a one-year review of the RVSM operations in the Bay of Bengal and Beyond area. India had updated RVSM/TF/24 on RVSM operations in Indian FIRs. The following matters arising from RVSM/TF/24 were bought to the attention of the meeting:

a) ATS route M890 had been established as a by-pass route of the Delhi TMA, providing an alternate route 17 NM shorter than R460W - A466W between Lucknow and SAMAR;

b) ATS route UM551 had been implemented to provide a shorter route between Trivandrum and Salalah across the Arabian Sea, resulting in a saving of about 103 NM between DONSA and Salalah Airport in the Sultanate of Oman;

c) ATS route W107 had been established to provide a direct route, 61 NM shorter, for flights operating between Chennai and Hong Kong via Port Blair;

d) ATS Route P628 had been extended beyond ASOPO to RK in consultation with defense authorities;

e) the lower limit of L333 was changed from FL 310 to FL 300 on 27 November 2003; and

f) further efforts were continuing to shorten or straighten some more international ATS routes passing through Indian airspace. For example Kathmandu – Kunming route via the northeastern part of Indian airspace, had since been approved by India. The Civil Aviation Authority of Nepal was coordinating with other ATS providers for the remaining portion of the route.

3.10 The meeting noted that the RVSM/TF 24 meeting had considered at length the route capacity problems on the main traffic flows across the Bay of Bengal and the under utilization of some routes. This matter was of longstanding and a Special Coordination Meeting (SCM) for the Bay of Bengal had been convened in conjunction with the BBACG/16 meeting on 31 January-4 February 2005 to look into this matter. As a result, BBACG/16 established the ATFM Task Force to progress the development of an ATFM Plan and implementation of automated ATFM systems for the Bay of Bengal area. IATA was pleased these developments were in the right direction and would further enhance efficiency

3.11 IATA expressed appreciated for India's efforts to establish more direct routes, which resulted in greater efficiency, reduced fuel wastage and achieved greater economic and environmental benefits. In IATA's view, normally ATS route structures used by international traffic should not be constructed by connecting radio navigational aids, instead, more RNAV routes should be utilized.

3.12 In regard to the EMARSSH route structure, India requested operators to make greater use of under utilized routes such as N877 and P628 to alleviate congestion on L759. IATA advised that L759 was the preferred route to Europe for operators, as it was shorter than N877 by about 185 NM. When the upper winds were favourable, flights would spread more across the route structure. For example, in November 2004, P628 was used by about 50 percent of the flights crossing the Bay of Bengal. IATA advised that operators were in full agreement with utilizing the route structure but would flight plan the shortest route due to operational constraints, and the fact that they did not have advance information during flight planning on route congestion and delays to be expected. If an ATFM plan was in place that provided the necessary information on route congestion, operators could assess the options available before departure and make informed decisions. In this regard, IATA expressed its full support for early introduction of an ATFM plan for the Bay of Bengal area.

3.13 Singapore advised that their statistics indicated that ground delays at Singapore Airport went down by 3 - 4 percent after the introduction of G792, which made P628 a viable alternative to L759.

3.14 In regard to the introduction of M890 by India to by pass the congested Delhi area, India would submit an amendment proposal to the BANP as early as possible. Until the BANP was amended, the route would be included in the Route Catalogue, Chapter 3.

3.15 The Secretary confirmed that amendment proposals APAC 04/7 for UM551, which connected Trivandrum and Salalah across the Arabian Sea, and APAC 05/4 for P761 between Chennai and Port Blair were being circulated to States and international organizations for comment and the BANP would be amended in due course.

ATS route realignment and RNAV routes establishment in South China Sea area proposed by Cambodia

3.16 Cambodia reported that difficulty was being experienced with traffic movement in the South China Sea area on ATS routes A1/P901 and A202, from Hong Kong through Bangkok to Phuket and beyond. Aircraft were experiencing traffic congestion and optimum level constraints. To facilitate air traffic movement and achieve greater operational efficiency, Cambodia proposed new direct routes and realignment.

3.17 The meeting noted that this realignment and linkage of new routes would bring positive benefits to airline operators and users in facilitating traffic movement from Hong Kong to Phuket and beyond, and vice versa, with more direct routings, less heading changes, shorter distances, less traffic congestion, time saving, less fuel consumption and more optimum cruising levels. IATA expressed support for the proposal. The States concerned reviewed the proposal and agreed to make changes to the existing routes taking into account the requirements of all parties concerned. A draft BANP amendment was prepared as shown in **Appendix H** to this Report**.**

3.18 The meeting agreed to include the draft proposal in the Route Catalogue, Chapter 4: *Future Requirement – States*.

Implementation of ATS route between Colombo – Maldives proposed by Sri Lanka

3.19 The meeting was advised by Sri Lanka that they had establishment a new ATS route between Male and Colombo on a trial basis on 1 November 2003 to meet the requests made by operators on the route for an alternate routing to G465. The request for the route arose because G465 required coordination between three ACCs, Colombo, Chennai and Male, as the route transited a short portion of the Chennai FIR (about 7 minutes). The new route avoids the Chennai FIR allowing direct coordination between Colombo and Male ACCs, thereby simplifying pilot and controller operations. However, the new route was longer than G465, which would be retained giving operators flexibility in their route selection. The detail of the new route is at **Appendix I** to this Report.

3.20 The new route although operating on a trial basis, would be included in the Route Catalogue, Chapter 3: *Route Implemented – Not in the BANP* initially until the amendment was approved**.**

3.21 Sri Lanka prepared a draft amendment proposal to the BANP as shown in **Appendix J** to this Report.

New ATS routes within Indonesian airspace

3.22 The meeting recalled that Indonesia submitted details of their ATS routes restructuring in Indonesia's FIRs at ARNR/TF/1. Subsequently, following coordination with the Regional Office, Indonesia made further changes to their proposal summarized as follows:

- A211 Tarakan – Manado
- L504 Singapore – Manado via Pontianak
- M522 Bali – Kota Kinabalu via MAMOK
- M635 Singapore – Alice Spring via SANOS – ANIVI
- M768 Brunei – Darwin via MAMOK – ELBIS
- M774 Singapore – Taroom via KIKOR - KIKEM
- N875 Bali – Arupa
- N876 Pangkalan Bun – Alice Springs via ONOXA

- P645 Surabaya – Brunai via AGSON
- P648 Jakarta – Kota Kinabalu via OKADA

(Upper and lower levels are FL 460 and FL 285. Detail information is at **Appendix K** to this Report.)

3.23 Indonesia advised that the route changes were part of a package of improvements being implemented. This included the opening of the new Makassar ACC replacing the Ujung Pandang and Bali ACCs and reorganization of the four FIRs, Bali, Biak, Jakarta and Ujung Pandang into two FIRs, Jakarta and Ujung Pandang. The planned implementation date was 12 May 2005, AIRAC date. Indonesia prepared a draft amendment proposal as shown at **Appendix L** to this Report. The meeting agreed to include the information in the Route Catalogue, Chapter 3: *Route Implemented – Not in the BANP*.

Considerations and proposal of China for the requirements of the future ATS route network development

3.24 China informed the meeting that they had progressed the construction of their route planning in accordance with the arrangements agreed at ARNR/TF/1 and under the principle of safety and efficiency. China had made progress on implementation of some route requirements.

3.25 China reported to the meeting that the route requirements for major city pairs would be taken into account in ATS route planning. In this regard, Beijing (Capital airport), Shanghai (Pudong, Hongqiao airport) and Guangzhou (Baiyun, Shenzhen airport) were the busiest airports in China, and the traffic flows had been increasing rapidly. In 2004, flight movements increased by 29 percent at Beijing, 34 percent at Shanghai and 24 percent at Guangzhou. En-route capacity between the three large airports would tend to be saturated in the near future. China expressed the view that that it was important to improve the trunk route network between the hub airports in the Asia/Pacific region and the hubs in adjacent regions. China provided details of traffic movement at some major airports in the Asia/Pacific region.

3.26 The meeting noted the route developments made by China and the significant increase in traffic at major airports in China, and the need to take into account the impact on regional traffic flows between the major airports in the region.

Agenda Item 4: Amendment proposals to the Asia Pacific BANP, Part VIII, Table ATS 1

4.1 In light of the outcomes of Agenda Item 3, the meeting established two work groups to progress the proposed route improvements and consider implementation requirements. The issues were discussed in detail and amendment proposals to the BANP were developed.

Work Group A attended by Cambodia, China, Hong Kong China, Indonesia, Lao PDR, Malaysia, Singapore, Thailand, Viet Nam and IATA

R575/R588/R589

4.2 The Group reviewed the proposal presented by Cambodia, which took into account A1 and P901. The Group agreed to introduce a new route between PAPRA and Surat Thani, and was assigned designator R575 by the Secretariat. In addition, the Group agreed to establish another route R589 from Phnom Penh to Phuket via Surat Thani and G458, and to amend the requirement for R588. A draft amendment proposal to the BANP was prepared as shown in **Appendix M** to this Report.

4.3 China advised that they had already improved the operation on A1/P901 for 24 hour operation, which was implemented on 23 December 2004 as notified by NOTAM. Further improvement was under consideration and studies were ongoing. China advised the meeting that they agreed with implementation of route segment Quangngai – ITBAM – CAVOI, which could meet the route requirements of Cambodia and IATA. To progress this matter, China advised that the States concerned should consider implementing Quangngai – ITBAM – CAVOI.

4.4 Viet Nam noted that the proposed R575 agreed to at this meeting would optimally serve traffic between Hong Kong and Phuket, and the requirement for extension of R588 within Ho Chi Minh FIR may not be necessary. However, Viet Nam advised that with respect to the northeastern portion of the routes under consideration which related to China and Viet Nam, they would consider the issues further when China had completed its studies of the A1/P901 arrangements.

4.5 The meeting noted the above situation and requested the States concerned to coordinate further to progress the route improvements in the area under consideration.

R459

4.6 R459 between Singapore and Manado, Indonesia was required in the BANP but had been implemented as a domestic route and was listed on the List of Deficiencies. To replace R459, Indonesia proposed a new RNAV route L504 connecting Singapore and Manado via Pontianak. This is contained in the amendment proposal submitted by Indonesia (Appendix L refers).

R579

4.7 Indonesia and Malaysia agreed to implement R579 as required in the BANP. The Group noted that the implementation date would be 12 May 2005.

R345

4.8 The Group reviewed a proposal to revise R345 connecting Vientiane and Phnom Penh, which was in the BANP but had not been implemented. The new route would replace domestic routing currently being used and provide a more direct route. Cambodia and Lao PDR agreed to amend R345, which would be implemented from Vientiane joining R470 at Udon Thani then via Ubon – RULOK – Phnom Penh as shown in **Appendix N** to this Report.

4.9 The meeting reviewed and endorsed the outcomes of the Group's discussions and expressed appreciation for the comprehensive review undertaken and good results achieved.

Work Group B attended by China, Hong Kong China, Viet Nam, Japan and IATA

Proposal by Vietnam and Lao PDR

4.10 Vietnam proposed that the Group consider implementation of three new ATS routes to meet the traffic demand and to facilitate the current traffic operation as follows:

a) between Noibai and Kunming;

b) between Noibai – CATBI – SAMAS − Hong Kong; and

c) between ASSAD and Luang Prabang.

4.11 The Group reviewed the new route requirements proposed by Viet Nam. China noted the potential benefits of these routes for airlines. However, due to the small traffic demand and consideration of cost/benefits of their ATC system, the route requirements a) and b) would be a long term consideration, and China required further studies on route requirement c) as well as a) and b).

4.12 The Group noted that item c) had been proposed by IATA at the ARNR/TF/1 meeting. This proposed route within the Hanoi and Vientiane FIRs had been agreed at a technical level to be implemented by Viet Nam and Lao PDR. However, there would need to be approval at higher levels within their administrations and appropriate coordination with China before implementation. The ARNR/TF/3 meeting would be updated on progress.

4.13 After some discussion, the Group agreed to record the requirements in the Route Catalogue, Chapter 4 for follow-up actions. It was also agreed that the proposed route between ASSAD (position on Sanya AOR/Ho Chi Minh FIR) and Luang Prabang (Vientiane FIR) would also be recorded in Chapter 5: *Future Requirements – Users*.

A202, A203, A218, A223, R216, R333 and R335

4.14 As a follow-up item to the ARNR/TF/1 meeting, the Group reviewed the requirements for the above routes which had not been implemented or partially implemented. The Group was advised that IATA had agreed to delete these routes or portions thereof from the APANPIRG List of Deficiencies.

4.15 IATA informed the Group that as some of these route requirements had been established for a considerable time, it was not possible to know in detail the originators' reasons for these routes, therefore, they should not be deleted from the BANP. From the users' perspective, the requirements for these routes were still valid.

4.16 After some discussions, the Group agreed that these routes would be appropriately recorded in the Route Catalogue, Chapter 2.

4.17 The meeting appreciated the detailed work undertaken by the Groups and the progress made to identify and progress route improvements. The outcomes of the Group were endorsed by the meeting.

Agenda Item 5: Development of the Asia and Pacific ATS Route Catalogue document

5.1 The meeting recalled that the ARNR/TF/1 meeting agreed that the *Asia and Pacific ATS Route Catalogue* would be an ideal way to compile and collate the list of routes proposed by the States and users. It was also be useful to include the routes listed in the BANP. This would provide APANPIRG, ICAO, States and users with a comprehensive and user friendly document of all the route characteristics, implementing status and future requirements of ATS routes in the Asia/Pacific region.

5.2 It was agreed to add remarks containing information on how far progress to implement the route had been made and other relevant information. The meeting agreed that members should review the format of the Catalogue with the intent to finalize this at the ARNR/TF/3 meeting. Suggestions to improve the document should be coordinated through the Secretariat by the end of March.

5.3 It was noted that the BANP was an official and formal document which took time to amend. Therefore, recent amendments to the BANP would not be published in a timely manner. With the objective of supplementing the BANP and making more timely information available, the

Catalogue was developed as a living document to be maintained by the Regional Office and updated at least annually and to be posted on the ICAO APAC website: www.icao.int/apac. In light of the above, Viet Nam suggested that a foreword to the document should be included on the purpose of the Catalogue, the history of the document and relationship with the BANP. It was also felt that cross-references would be useful to States and users.

5.4 The meeting appreciated the suggestions and agreed to improve the document accordingly. The Secretariat would prepare a suitable introduction to the Catalogue.

5.5 The meeting adopted the draft Catalogue as updated at this meeting, which was distributed by CD. The meeting recognized that in developing of the document to this present stage, a considerable effort had been made and expressed appreciation to IATA for the support provided. In particular the meeting commended Mr. Julian Fung for his contribution in producing an excellent result.

5.6 The meeting adopted the *Asia and Pacific ATS Route Catalogue* Version 0.1 as updated.

Agenda Item 6: Development of the ATS Route Master Database

6.1 The meeting was advised by the Secretariat that in January 2005, States in the Asia/Pacific region were reminded by State letter to submit their route databases in electronic format as soon as possible for the ARNR/TF/2 meeting. To date only ten States had submitted the data. The meeting urged States to provide the data, which was essential to ensure that the BANP entries and Route Catalogue details accurately recorded the routes implemented by States. A list of States who provided the data is shown at **Appendix O** to this Report.

Agenda Item 7: Other Business

2 NM Strategic lateral offset procedures in the Asia/Pacific region

7.1 The meeting was reminded that the APANPIRG/15 meeting (August 2004) reviewed the ICAO guidelines on the use of 2 NM lateral offsets to the right of centre line to mitigate the risk of the collision in the event of loss of vertical separation. Also, the 2 NM lateral offset procedures incorporates wake turbulence procedures. State Letter (ref AN 13/11.6-04/85) on the revised guidelines was issued by ICAO on 27 August 2004. The APANPIRG/15 meeting noted that implementing 2 NM offset procedures should be done in a coordinated manner over contiguous airspaces. In this regard, States were advised to harmonize the implementation on a common date in the Asia and Pacific region. The APANPIRG/15 meeting recommended that States should implement the offset procedures on 20 January 2005. In this regard, not all States concerned were able to meet this date.

7.2 In regard to the application of the offset procedures, IATA queried if States could adopt a flexible approach and permit the use of the procedures in radar airspace whenever feasible. It should be noted that ICAO guidelines provide for this condition.

ARNR/TF Work Plan

7.3 To progress the work of the Task Force, the meeting developed a Work Plan as shown in **Appendix P** to this Report.

Future meetings and venue

7.1 The meeting agreed that to progress the work of the Task Force, the next ARNR/TF/3 meeting would be held from 9-10 May 2005 at the ICAO Asia and Pacific Office, Bangkok back to back with the Twelfth Meeting of the South East Asia ATS Coordination Group (SEACG/12) to be held on 11-13 May at the Regional Office, Bangkok. This would assist some States to minimize their burden to attend meetings, as many of the ARNR/TF members were also involved with SEACG. The Secretariat advised that in the invitation to ARNR/TF/3 and SEACG/12, States would be reminded to include the appropriate representatives to cover both meetings where possible.

8. Closing of the meeting

8.1 The Chairman thanked participants for the good progress made to establish the work programme of the Task Force. Following the meeting discussion, the initial draft Route Catalogue had been produced. The Chairman requested the States to provide updates on the document as soon as possible in preparation for the next meeting. It is envisaged that one more task force meeting will be required to finalize the catalogue. He thanked the Regional Office for the support provided, and on behalf of the meeting expressed appreciation for this excellent meeting facility.

……

LIST OF PARTICIPANTS

Underlined names are the points of contact of each State/Organization.

(*Note: Points of contact does not necessarily represent the State/Organization officially*.)

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
BANGLADESH		
Mr. Md. Kaisar Alam	Director, Civil Aviation Training Center Civil Aviation Authority of Bangladesh CATC Kurmitola, Dhaka 1229 Bangladesh	Tel: 880-2-8914546 Res: 880-2-9110981
Mr. Ratan Kumar Saha	Senior Aerodrome Officer Civil Aviation Authority of Bangladesh Headquarters Office Kurmitola, Dhaka 1229 Bangladesh	Tel: 880-2-8960001 Fax: 880-2-8913322
CAMBODIA		
Mr. Chhun Sivorn	Deputy Director of Flight Operation and Air Safety State Secretariat of Civil Aviation (SSCA) #62, Preah Norodom Blvd Phnom Penh, Cambodia	Tel: +855-12-866 659 Fax: +855-23-725 938 E-mail: chhunsivorn@hotmail.com chhunsivorn@yahoo.com
Mr. Saichon Pingsakul	Director ATS Planning & Training Cambodia Air Traffic Services Co., Ltd. Russian Boulevard Phnom Penh International Airport Cambodia	Tel: 855 16 771135 Fax: 855 16 777715 E-mail: saichonp@cats.com.kh
CHINA		
Mr. Liu Gang	Official, Office of State ATC Commission No.12 East Sanhuan Road Middle Chaoyang District, Beijing 100022 People's Republic of China	Tel: +86-10-8778 6835 Fax: +86-10-8778 6830
Mr. Liu Song	Engineer of Airspace Management Division Air Traffic Management Bureau, CAAC No.12 East Sanhuan Road Middle Chaoyang District, Beijing 100022 People's Republic of China	Tel: +86-10-8778 6835 Fax: +86-10-8778 6830 E-mail: liusong@atmb.net.cn
Mr. Kang Ge	Engineer of Airspace Management Division Air Traffic Management Bureau, CAAC No.12 East Sanhuan Road Middle Chaoyang District, Beijing 100022 People's Republic of China	Tel: +86-10-8778 6836 Fax: +86-10-8778 6830 E-mail: kanggge@263.net
HONG KONG, CHINA		
Mr. Leung Pui-kong, Peter	Chief Air Traffic Control Officer Civil Aviation Department 4/F, ATC Complex 1 Control Tower Road Hong Kong International Airport Lantau Hong Kong, China	Tel: 852-2910 6432 Fax: 852-2910 0186 E-mail: ppkleung@cad.gov.hk

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
Mr. Li Kwok-chu, Raymond	Air Traffic Control Officer I Civil Aviation Department 4/F, Air Traffic Control Complex 1 Control Tower Road Hong Kong International Airport Lantau Hong Kong, China	Tel: +852-2910 6441 Fax: +852-2910 0186 E-mail: rkcli@cad.gov.hk
Mr. Cheuk Chi-chung, Milton	Air Traffic Control Officer II Civil Aviation Department 4/F, Air Traffic Control Complex 1 Control Tower Road Hong Kong International Airport Lantau Hong Kong, China	Tel: 852-2910 6821 Fax: 852-2910 0186 E-mail: mcccheuk@cad.gov.hk
INDIA		
Mr. J.S. Rawat	Director of Operations (Aerodrome Standards) Office of Director General of Civil Aviation Opposite Safdarjung Airport Technical Centre New Delhi 110003 India	Tel: +91 11 2464 1435 Fax: +91 11 2464 1435 E-mail: doas@dgca.delhi.nic.in
Mr. M.C. Dangi	DGM (ATM-OPS) CHQ Airports Authority of India Safdarjung Airport New Delhi-110003 India	Tel: 91-11-2461 0204 Fax: 91-11-2461 1078 E-mail: mcdangi@aai.aero
Mr. Jyoti Prasad	Additional General Manager (ATM-S&P) Airports Authority of India IGI Airport New Delhi India	Tel: +91 11 2463 1684 Fax: +91 11 2461 1078 E-mail:
INDONESIA		
Mr. Nanang S. Taruf	Deputy Director System and Procedure for Air Navigation Directorate General of Air Communication Directorate of Aviation Safety Gedung Karya, Lt.23 Jl. Merdeka Barat No.8 Jakarta 10110, Indonesia	Tel: 62-21-5501886 / 42880405 Fax: 62-21-350 6451 E-mail: swastya@telkom.net
Mr. Surachman	Deputy Director for ATS PT (PERSERO) Angkasa Pura I Kota Baru Bandar Kemayoran Blok B-12 Kav.2 Jakarta Pusat 10610 Indonesia	Tel: 62-21-6541642 Fax: 62-21-6541513 E-mail: surachman@angkasapurat1.co.id
JAPAN		

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
Ms. Kumi Inoue	Air Traffic Flow Management Officer Civil Aviation Bureau Ministry of Land, Infrastructure and Transport 1302-17 Kosenuki Nata Higashi-ku, Fukuoka-city Fukuoka, Japan	Tel: 81-92-608 6120 Fax: 81-92-608 6129 E-mail: inoue-k07n8@atfm.mlit.go.jp
LAO PDR		
Mr. Somsy Sisavath	Director of Air Navigation Division Department of Civil Aviation Wattay International Airport P.O. Box 119, Vientiane Lao PDR	Tel: 856-21-512164 ext 612 Fax: 856-21-512164
Mr. Amdounla Salinthone	Chief of Approach DCA, Lao Airport Authority Wattay International Airport P.O. Box 3175, Vientiane Lao PDR	Tel: 856-21-512006 ext 241, 242 Fax: 856-21-512216 E-mail: amdounla@yahoo.com
MALAYSIA		
Mr. Ghazali Said	Deputy Director I, KL ATCC Department of Civil Aviation Sultan Abdul Aziz Shah Airport 47200 Subang Malaysia	Tel: 603-78465233 Fax: 603-76456590 E-mail: guzz@tm.net.my
PHILIPPINES		
Mr. Salvador G. Rafael	Chief, Air Traffic Control Division Air Traffic Service Air Transportation Office 4/F ATO Bldg, MIA Road Pasay City 1300 Philippines	Tel: +632 879 9160 Fax: +632 879 9160
REPUBLIC OF KOREA		
Mr. Park, Chung-Sup	Deputy Director of Airway Development ATS Planning Division Civil Aviation Safety Authority Ministry of Construction and Transportation 274, Gwahae-Dong, Gangseo-Gu Seoul 157-711 Republic of Korea	Tel: 82-2-2669 6430 Fax: 82-2-6342 7289 E-mail: tojong@moct.go.kr
Mr. Kim, Jin-Sung	Deputy Director of Airspace Division Airspace Division, Incheon ACC Civil Aviation Safety Authority Ministry of Construction and Transportation P.O. Box 26, Incheon Airport Post Office WoonSeo-dong, Joong-gu, Incheon City Republic of Korea	Tel: 82-32-880 0225 Fax: 82-32-889 2376 E-mail: airspace@moct.go.kr
SINGAPORE		
Mr. Heng Cher Sian	Project Officer (Airspace) Civil Aviation Authority of Singapore Singapore Changi Airport P.O. Box 1 Singapore 918141	Tel: 65-6541 2457 Fax: 65-6545 6516

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
Mr. Lim Kim Chuan	Senior ATC Manager (Airspace) Civil Aviation Authority of Singapore Singapore Changi Airport P.O. Box 1 Singapore 918141	Tel: 65-6541 2401 Fax: 65-6545 6516
Mr. Loke Chee Yong	Air Traffic Control Officer Civil Aviation Authority of Singapore Singapore Changi Airport P.O. Box 1 Singapore 918141	Tel: 65-6541 2668 Fax: 65-6545 6252
SRI LANKA		
Mr. Kotagoda H. Ratnasiri	Senior Air Traffic Controller Airport & Aviation Services (Sri Lanka) Ltd Bandaranaike International Airport Colombo, Katunayake Sri Lanka	Tel: 94-11-2635105 Fax: 94-11-2635105 E-mail: hrd@airport.lk
THAILAND		
Mr. Weerawath Thaitakul	Chief of Air Traffic Control Airport Standards and Air Navigation Facilitating Division Department of Civil Aviation 71 Soi Ngarmduplee, Tungmahamek Bangkok 10120, Thailand	Tel: 66-2-286 8159 Fax: 66-2-286 8159
Flg.Off. Mano Jeenthong	Air Traffic Control Expert Airport Standard and Air Navigation Facilitating Division Department of Civil Aviation 71 Soi Ngarmduplee, Tungmahamek Bangkok 10120, Thailand	Tel: 66-2-287 0320 ext 1320 Fax: 66-2-286 2909
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
Dr. Paisit Herabat	Executive Officer, Systems Engineer Aeronautical Radio of Thailand Ltd. 102 Ngarmduplee, Tungmahamek 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 Ngarmduplee, Tungmahamek Bangkok 10120, Thailand	Tel: 66-2-285 9059 Fax: 66-2-285 9077 E-mail: watee.ar@aerothai.co.th
Ms. Sirikes Niemloy	Air Traffic Control Manager Aeronautical Radio of Thailand Ltd. 102 Ngarmduplee, Tungmahamek 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 Company Ltd 89 Vibhavadi Rangsit Rd, Chatuchak Bangkok 10900, Thailand	Tel: 66-2-545 2665 Fax: 66-2-545 3849 E-mail: titiwat.b@thaiairways.com

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
Mr. Somkiat Prakitsuvan	Manager, Route Planning Analysis Division Operations Support Department Thai Airways International Public Company Ltd Room 4214 4th Floor Central Block Bangkok International Airport Bangkok 10210, Thailand	Tel: 66-2-535 2449 Fax: 66-2-504 3814 E-mail: somkiat.p@thaiairways.com
Ms. Wipawinee Preelers	Senior Flight Dispatcher Bangkok Airways Company Limited 99 Moo 14, Wiphawadee Rangsit Rd Jomphon, Chatuchak Bangkok 10900, Thailand	Tel: 66-2-535 3486 Fax: 66-2-504 2762 E-mail: wipaw.preel@bangkokair.co.th
Capt. Staporn Pattaragomol	Operations Control Manager Thai Air Asia Co., Ltd. 89/170, 9th Floor, Juthamard Building Moo 3, Vibhavadi Rangsit Road Talad Bangkhen, Laksi Bangkok 10210, Thailand	Tel: 66-2-791 4500 Fax: 66-2-791 4501 E-mail: stapornp@airasia.com
Capt. Graham Smith	Deputy Director of Flight Operations Orient Thai Airlines Company Limited Room 2782, 2/F, Terminal 2 Bangkok International Airport Bangkok 10200, Thailand	Tel: 66-2-504 3641 Fax: 66-2-504 3640 E-mail: graham_s@orient-thai.com
UNITED STATES		
Mr. Mic Olvera	Airspace Manager HQ PACAF/USAF PACAF/DOY Suite E-112, Bldg. 1102 Hickam AFB HI 96797 U.S.A.	Tel: 1-808-449 4889 / 4494070 Fax: 1-808-449-4889 E-mail: Michael.olvera@hickam.afmil
VIET NAM		
Mr. Nguyen The Hung	Manager, ATM-AIS Section Air Navigation Dept Civil Aviation Administration of Viet Nam 119 Nguyen Son Street Long Bien Dist. Hanoi 10000, Vietnam	Tel: 84-4-8723 600 Fax: 84-4-8274 194 E-mail: hungand@caa.gov.vn Hungand_caav@yahoo.com
Mr. Nguyen Manh Quang	Deputy Chief, ATS-AIS Division Vietnam Air Traffic Management Civil Aviation Administration of Viet Nam Gialam Airport Hanoi 10000 The Socialist Republic of Viet Nam	Tel: 84-4-8730 320 Fax: 84-4-8272 597 E-mail: nguyenmq2003@yahoo.co.uk
IATA		
Mr. Soon Boon Hai	Assistant Director, Safety, Operations & 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

STATE/NAME	DESIGNATION/ADDRESS	CONTACT DETAILS
Mr. Owen Dell	Manager International Operations Cathay Pacific Airways Limited International Affairs Department 9/F Central Tower, Cathay Pacific City 8 Scenic Road Hong Kong International Airport Lantau, Hong Kong, China	Tel: 852 2747 8829 Fax: 852 2141 8829 E-mail: owen_dell@cathaypacific.com
Mr. Julian Fung	Assistant Manager, Route Development Flight Operations Department Cathay Pacific Airways Limited 3/F Central Tower, Cathay Pacific City 8 Scenic Road Hong Kong International Airport Lantau, Hong Kong, China	Tel: 852 2747 3818 Fax: 852 2141 3818 E-mail: julian_fung@cathaypacific.com
Capt. Aric Oh	Deputy Chief Pilot (Technical) Flight OPS Technical Singapore Airlines Limited SIA Training Centre 04-C 720 Upper Changi Road Singapore 486852	Tel: +65-6540 3694 Fax: +65-6542 9564 E-mail: aric_oh@singaporeair.com.sg
Mr. Michael Dietz	Manager, Air Traffic Services & International Organizations Lufthansa German Airlines FRAOZ/G-5 Lufthansa Base D-60546 Frankfurt Germany	Tel: +49-69-696 2217 Fax: +49-69-696-7070 E-mail: Michael.dietz@dlh.de
IFALPA		
Capt. Koichi Sano	Regional Vice President for North Pacific IFALPA 3-2-11 Higiriyama Konan-Ku, Yokohama-shi Kanagawa Pref. 2330015 Japan	Tel (H): 81-45-845 2154 Tel (O): 81-3-5705 2770 Fax (H): 81-45-845 2154 Fax (O): 81-3-5705 3274 E-mail: sano-koichi@alpajapan.org office@alpajapan.org
ICAO		
Mr. David J. Moores	Regional Officer, ATM ICAO Asia & Pacific Office P.O.Box 11 Samyaek Ladprao Bangkok – 10901 Thailand	Tel: 66-2-5378189 Fax: 66-2-5378199 AFTN: VTBBICOX E-mail: dmoores@bangkok.icao.int
Mr. Kyotaro Harano	Regional Officer, ATM ICAO Asia & Pacific Office P.O.Box 11 Samyaek Ladprao Bangkok – 10901 Thailand	Tel: 66-2-5378189 Fax: 66-2-5378199 E-mail: kharano@bangkok.icao.int

LIST OF WORKING AND INFORMATION PAPERS

WORKING PAPERS

WP No.	Date	Agenda Item	Presented by	Subject
1	14/2/05	1	Secretariat	Provisional Agenda
2	14/2/05	2	Secretariat	Amendment Proposals of ATS Route Requirements Developed after the First Edition of *Basic Air Navigation Plan*
3	14/2/05	3	Secretariat	Review of the APANPIRG List of Deficiencies in the Air Navigation Field
4	14/2/05	3	Secretariat	Establishment of Direct Route between Rahim Yar Khan and KANDAHAR
5	14/2/05	3	Secretariat	New Route Development in Indian FIRs
6	14/2/05	3	Cambodia	The Proposed ATS/RNAV route realignment and ATS/RNAV Routes establishment in South China Sea Area
7	14/2/05	5	Secretariat	Development of the Asia and Pacific ATS Route Catalogue
8	14/2/05	6	Secretariat	Maintenance of ATS Route Master Database
9	14/2/05	3	China	Considerations and Proposal of China for the Requirements of the Future ATS Route Network Development
10	14/2/05	3	Sri Lanka	Implementation of ATS Route Colombo-Maldives-Colombo
11	14/2/05	3	Indonesia	New ATC Routes within Indonesia Airspace
12	14/2/05	7	India	Westbound Traffic Flow on EMARSSH Routes through Indian FIRs – An Analysis

INFORMATION PAPERS

IP No.	Date	Agenda Item	Presented by	Subject
1	14/2/05	-	Secretariat	Tentative List of Information and Working Papers
2	14/2/05	7	Secretariat	Implementation of 2 NM Lateral Offset Procedures

****

AGENDA

Agenda Item 1:	Adoption of Provisional Agenda
Agenda Item 2:	Review the ATS route network of the Asia and Pacific Regions as described in the *Basic Air Navigation Plan* (BANP, Doc 9673, 1st Edition dated 2001)
Agenda Item 3:	Consider route requirements (changes to existing routes and establishment of new routes)
Agenda Item 4:	Amendment proposals to the Asia Pacific BANP, Part VIII, Table ATS 1
Agenda Item 5:	Development of the Asia and Pacific ATS Route Catalogue document
Agenda Item 6:	Development of the ATS Route Master Database
Agenda Item 7:	Other business

. . . . . .

CURRENT STATUS OF AMENDMENT PROPOSALS OF APAC BANP ATS ROUTE REQUIREMENT

Reference	Brief Description	Proposer	Date of Receipt	HQ for Comments	Date of Circulation to States	Closing Date for Comments	Date of Submission to HQ	Date of Approval	Notification to States	Remarks
APAC 98/13-ATS	ATS Routes in the Nadi FIR	Fiji	1/12/98	-	3/2/99	20/3/99 objections from Samoa and Tonga				Special Coordination Meeting was held 6/8/99. Ongoing consultation with Samoa/Tonga/HQ. Special Coordination Meeting in Feb 2002. Awaiting from Fiji clarification 29/9/04, request made again 26/1/05.
APAC 99/1-ATS	ATS Routes A218, B328, B330, B331, B334, and B480	China	24/2/99	N/A	6/10/99	26/11/99	12/1/00	26/1/00	01/2/00	Editorial error in BANP: A218 was approved from Harbin, not Beijing. China is coordinating with Russia to correct the error.
APAC 99/4-ATS	ATS Routes A459, A466, B345, B457, G452, G598, G669, R328, R331, R462, and UL425	India	29/4/99 consolidating APAC97/11 and 98/1	N/A	24/1/01	09/3/01	23/3/01	12/4/01	19/4/01	Waiting for the Second Edition.

Reference	Brief Description	Proposer	Date of Receipt	HQ for Comments	Date of Circulation to States	Closing Date for Comments	Date of Submission to HQ	Date of Approval	Notification to States	Remarks
APAC 99/10-ATS	CNS/ATM route L888 in China	China	7/7/99	17/9/99 HQ comments 22/11/99 and 10/1/00						Awaiting from China clarification and detailed information 19/1/00; request made again 16/3/00, further request made 10/5/00
APAC 00/1-ATS	ATS routes B588, G334, G461,R218, and R597	Indonesia, Malaysia and Philippines	10/1/00 combining APAC 99/2 and 99/3	N/A	03/8/00	22/9/00	8/12/00	10/1/01	15/1/01	Waiting for the Second Edition
APAC 03/4-ATS	EMARSSH route structure	APANPIRG/11 Conclusion 11/10								
APAC 04/3-ATS/SAR/AIS	Requirement for ATS route G211 is deleted and A341 is amended.	Malaysia	29/3/04	23/4/04	28/5/04	15/7/04	19/7/04	3/8/04	9/8/04	Waiting for the Second Edition
APAC 04/7-ATS/AIS/SAR	Establishment an ATS route of UM551	India	22/6/04	N/A	27/1/05	18/3/05				

Reference	Brief Description	Proposer	Date of Receipt	HQ for Comments	Date of Circulation to States	Closing Date for Comments	Date of Submission to HQ	Date of Approval	Notification to States	Remarks
APAC 04/10-ATS/AIS/SAR	The route segment YUZHNO-SAKHALINSK and ANIMO lies within Yuzhno-Sakhalinsk FIR and should be deleted from ASIA/PAC BANP	Russian Federation								
APAC 04/11-ATS/AIS/SAR	Establishment ATS routes of L642 and M772. Deletion of Column 3 of Table ATS 1.	Hong Kong, Indonesia, Malaysia, Philippines, Singapore, and Viet Nam. RAN/3	19/4/93	-	13/12/04	13/1/05				
APAC 05/3-ATS	Establishment an ATS route of B345	China and Nepal	17/1/05	N/A	26/1/05	18/3/05				
APAC 05/4-ATS/AIS/SAR	Establishment an ATS route of P761	India			27/1/05	18/3/05				

N/A: Not applicable

After the First Edition was published, 12 proposals have been developed; 4 proposals were approved and 8 amendments are pending or ongoing.

----- End -----

APANPIRG REPORTING FORM ON 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****
~~ATS Routes~~								
~~Requirements of Part V.III, Table ATS 1 of the air navigation plan~~	~~Hong Kong, China/Japan~~	~~A202 - Partially implemented~~	~~24/11/93~~	Hong Kong-Bangkok segment was implemented on 1 November 2001. ~~Japan considering implementation as a conditional route~~. Reviewed by ARNR/TF/2. Route to be included in the Route Catalogue as a user requirment as requested by IATA	~~Japan - co-ordinate Hong Kong, China~~ Hong Kong, China and Japan requested deletion and will submit an amendment to BANP.	~~Hong Kong, China/ Japan~~	~~HongKong-Bangkok segment 1/11/2001;~~ ~~Hong Kong-Chitose segment TBD~~ ~~Review by ARNR/TF/1 - Subject to BANP amendment.~~ Item captured in Chapter 2 of the Route Catalogue for future review. Deficiency Item Closed.	~~B~~
	~~China/Hong Kong, China~~	~~A203 - Not implemented~~	~~24/11/93~~	~~China advises no international flight requirements.~~ Reviewed by ARNR/TF/2. Route to be included in the Route Catalogue as a user requirment as requested by IATA	China and Hong Kong, China requested deletion and will submit an amendment to BANP.	~~China/Hong Kong, China~~	~~Subject to BANP amendment.~~ Item captured in Chapter 2 of the Route Catalogue for future review. Deficiency Item Closed.	~~B~~
	~~Indonesia~~	~~A211 - Partially implemented~~	~~24/11/93~~	~~ICAO has requested Malaysia to co-ordinate the early implementation of A211 with States concerned.~~ ~~Malaysia has advised at SEACG/10 of the implementation of the route within Malaysia on 29 November 2001.~~	~~Indonesia - implement the missing segement~~ ~~ICAO- coordinate the implementation with Indonesia~~	~~Indonesia~~ ~~ICAO~~	~~29/11/2001 (by Malaysia)~~ ~~TBD by Indoensia~~ ~~Review by ARNR/TF~~ Implemented 22/1/04. Deficiency Item closed.	~~B~~

APANPIRG REPORTING FORM ON 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/Russian Federation~~	~~A218 - Partially implemented in Russia and Alaska~~	~~24/11/93~~	~~ICAO has taken action to co-ordinate with China/Russian Federation for implementation of Harbin-Ekimchan segment and to amend ANP. APAC 99/1-ATS was approved on 26/1/00. CAAC subsequently advises (14 Apr 03) that current route G212 meets the requirements and the proposed A218 is no longer required.~~ Reviewed by ARNR/TF/2. Route to be included in the Route Catalogue as a user requirment as requested by IATA.	~~China requested deletion and amendment to BANP.~~ China is coordinating with Russia.	China~~/ Russian Federation ICAO~~	~~Subject to BANP amendment.~~ Item captured in Chapter 2 of the Route Catalogue for future review. Deficiency Item Closed.	~~B~~
	~~Japan~~	~~A223 - Not implemented~~	~~24/11/93~~	~~Japan has advised that a domestic route network covers the route.~~ Reviewed by ARNR/TF/2. Route to be included in the Route Catalogue as a user requirment as requested by IATA	Japan ~~- consider implementation as a conditional route~~requested deletion and amendment to BANP	~~Japan~~	~~TBD Review by ARNR/TF/1~~ Subject to BANP Amendment. Item captured in Chapter 2 of the Route Catalogue for future review. Deficiency Item Closed.	~~B~~

APANPIRG REPORTING FORM ON 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/Mongolia/Russian Federation~~	~~A335 - Partially implemented~~	~~24/11/93~~	~~China and Mongolia advised that this segment is covered by other ATS routes properly; thus will **has** proposed its deletion from ANP.~~ ~~China reported to APANPIRG/14 the portion between HOHHOH - TUMURTAI was implemented.~~ Reviewed by ARNR/TF/2. Route to be included in the Route Catalogue as a user requirment as requested by IATA.	~~China, Mongolia - propose BANP amendment~~	~~China/Mongolia~~	~~Deletion of A335 notified 9 Oct 01~~ ~~Subject to BANP amendment.~~ Item captured in Chapter 2 of the Route Catalogue pending amendment approval. Deficiency Item Closed.	~~B~~
	~~Indonesia/Malaysia~~	~~A341 - Partially implemented~~	~~24/11/93~~	~~ICAO has requested Indonesia to co-ordinate implementation with Malaysia.~~ ~~Malaysia has advised that the existing route B584 fulfils sufficiently the requirement and would propose the deletion of the requirement for Syrabaya-Kota Kinabalu segment.~~	~~Indonesia/Malaysia - consider full implementation~~	~~Indonesia/Malaysia~~	~~12/2001~~ ~~Review by ARNR/TF~~ BANP amended by APAC 04/3. Deficiency Item closed	~~B~~
	~~Indonesia/United States~~	~~A450 - Partially implemented~~	~~24/6/94~~	~~ICAO has requested Indonesia to co-ordinate implementation with United States.~~ ~~United States has agreed to the implementation, and a response from Indonesia is being awaited.~~	~~Indonesia/United States - consider full implementation~~	~~Indonesia/United States~~	~~TBD~~ ~~Review by ARNR/TF~~ Implemented by the United States on 25 November 2004. Deficiency Item closed	~~B~~

APANPIRG REPORTING FORM ON 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****
	~~Viet Nam~~	~~A469 - Implemented as W9 before. As of 1 Nov 2001 implemented as L643.~~	~~19/8/94~~	~~ICAO has requested Viet Nam to implement as A469. Viet Nam advised that W9 was replaced with L643 on 1 November 2001.~~ Reviewed by ARNR/TF/2 and actioned confirmed.	Viet Nam - propose deletion of the requirement as A469 ICAO process BANP amendment	~~Viet Nam ICAO~~	~~Subject to BANP amendment.~~ Item captured in Chapter 2 of the Route Catalogue pending amendment approval. Deficiency Item Closed.	~~B~~
	~~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.~~ Reviewed by ARNR/TF/2 and actioned confirmed.	India/Nepal - implement the route as L626	~~India/Nepal~~	Target date of implementation of L626 June 2005. Item captured in Chapter 2 of the Route Catalogue. Deficiency Item closed.	~~B~~
	~~Thailand~~	~~A581 - Partially implemented~~	~~17/2/97~~	~~China, Lao PDR and Thailand proposed an amendment to ANP. ICAO processed APAC99/11 in co-ordination with China/Myanmar/Thailand. APAC99/1 was approved on 15 December 2000.~~	~~Thailand - implement accordingly.~~	~~Thailand~~	~~11/2002 Review by ARNR/TF.~~ Implemented. Item closed	~~B~~
	~~United States~~	~~A584 - Partially implemented~~	~~24/6/94~~	~~ICAO has requested United States to implement the missing segment. United States has proposed deletion of the missing segment, and the proposal is under preparation.~~ Reviewed by ARNR/TF/2 and actioned confirmed.	~~ICAO - process an amendment in co-ordiantion with United States.~~ United States will propose to delete	~~United States ICAO~~	~~Subject to BANP amendment.~~ Item captured in Chapter 2 of the Route Catalogue. Item closed.	~~B~~

APANPIRG REPORTING FORM ON 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/New Zealand~~	~~B201 - Not implemented~~	~~24/11/93~~	~~Fiji/New Zealand have advised that they agreed to delete the requirement. ICAO will process ANP amendment as this was covered by routes B575, G457 and R327.~~ Reviewed by ARNR/TF/1 and actioned confirmed.	Fiji/New Zealand - propose an amendment to delete the requirement in BANP	~~Fiji/New Zealand ICAO~~	~~Subject to BANP amendment.~~ Item captured in Chapter 2 of the Route Catalogue. Item closed.	~~B~~
	~~Maldives~~	~~B204 - The requirements for this route are not detailed in BANP~~	~~24/1/96~~		~~Maldives - propose an amendment to ANP to add the route.~~	~~Maldives ICAO~~	~~Subject to BANP amendment~~ Dissolved. Item closed.	~~B~~
	~~Japan/Rep of Korea~~	~~B212 - Not implemented~~	~~24/11/93~~	~~Japan is considering implementation as a conditional route and will coordinate with Republic of Korea.~~ Reviewed by ARNR/TF/2 and actioned confirmed.	Japan/Rep of Korea - consider implementation	~~Japan/Rep of Korea~~	~~12/2005 Review by ARNR/TF~~ . Coordination ongoing. Captured in Chapter 2 of the Route Catalogue. Item Closed.	~~B~~
	~~Papua New Guinea~~	~~B456 - Partially implemented~~	~~24/11/93~~	~~Papua New Guinea has advised that they will formally propose ANP amendment for deletion of the missing segment.~~ Reviewed by ARNR/TF/2 and status to be confirmed by the Regional Office.	~~Papua New Guinea - propose an amendment to BANP. ICAO process BANP amendment.~~	~~Papua New Guinea ICAO~~	~~Subject to BANP amendment .~~ Partially Implemented. Amentment proposal to be submitted. Captured in Chapter 2 of the Route Catalogue. Item closed.	~~B~~
	~~China~~	~~B591 - Partially implemented~~	~~22/7/97~~	~~Co-ordination is in progress among States and ICAO.~~ Reviewed by ARNR/TF/2 and actioned confirmed.	~~ICAO - continue on-going implementation co-ordination related to the Revised South China Sea route structure with States.~~ China will consider for future implementation.	~~China~~	~~TBD Review by ARNR/TF~~ Captured in Chapter 2 of the Route Catalogue. Item closed.	~~B~~

APANPIRG REPORTING FORM ON 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****
	~~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.~~ Reviewed by ARNR/TF/2 and actioned confirmed.	~~Indonesia implement the requirement accordingly.~~ ICAO will coordinate with Indonesia.	Indonesia/ICAO	Implemented with different route specification. Amendment Proposal to be submitted. Captured in Chapter 2 of the Route Catalogue. Item closed.	~~B~~
	~~Cambodia /Philippines Thailand/Viet Nam~~	~~G473 - Partially implemented~~	~~24/11/93~~	~~Co-ordination is in progress among States and ICAO.~~ Reviewed by ARNR/TF/2 and action confrmed.	ICAO - continue ongoing implementation co-ordination related to the Revised South China Sea route structure with States	Cambodia /Philippines Thailand/Viet Nam/ICAO	Implementation on-going. Captured in Chapter 2 of the Route Catalogue. Item closed.	~~B~~
	~~DPR Korea/ Rep of Korea~~	~~G589 - Not implemented~~	~~24/11/93~~	Reviewed by ARNR/TF/2 and status to be confirmed by the Regional Office.	~~B467 established instead of G589 April 1998~~	~~DPR Korea/ Rep of Korea~~	Implemented as B467. Amendment Proposal to delete G589 to be submitted. Captured in Chapter 2 of the Route Catalogue. Item closed.	~~B~~
	~~China/Kazakhstan~~	~~R216 - Not implemented~~	~~24/11/93~~	~~CAAC advises current routes 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).~~ Reviewed by ARNR/TF/2. Route to be included in the Route Catalogue as a user requirment as requested by IATA	~~CAAC proposed deletion~~	~~China/Kazakhstan ICAO~~	Captured in Chapter 2 of the Route Catalogue. Item closed.	~~B~~
	~~China~~	~~R333 - Not implemented~~	~~24/11/93~~	~~China is considering future implementation.~~ Reviewed by ARNR/TF/2. Route to be included in the Route Catalogue as a user requirment as requested by IATA	China and Hong Kong, China ~~– co-ordinating with Hong Kong CAA~~propose deletion.	China/Hong Kong, China	~~TBD Review by ARNR/TF~~ Subject to BANP amendment. Captured in Chapter 2 of the Route Catalogue. Deficiency Item closed.	~~B~~

APANPIRG REPORTING FORM ON 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/Hong Kong, China~~	~~R335 - Not implemented~~	~~24/11/93~~	~~CAAC advises no international flight requirements and requests deletion from ANP (14 Apr 03).~~ Reviewed by ARNR/TF/2. Route to be included in the Route Catalogue as a user requirment as requested by IATA.	~~China proposed deletion and amendment to BANP~~	~~China/Hong Kong, China~~ ~~ICAO~~	Subject to BANP amendment. Captured in Chapter 2 of the Route Catalogue. Deficiency Item closed.	~~B~~
	~~Cambodia/Lao PDR/Thailand~~	~~R345 - Not implemented~~	~~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.~~ Reviewed by the ARNR/TF/2 and action confirmed.	~~ICAO - continue ongoing implementation co-ordination related to the Revised South China Sea route structure with States~~ Cambodia- coordinate the deletion with IATA as well as Lao PDR and Thailand	~~Cambodia/Lao PDR/ Thailand~~	New Route will be implemented. Amendment Proposal to R345 to be submitted. Captured in Chapter 2 of the Route Catalogue. Deficiency Item closed.	~~B~~
	~~Indonesia~~	~~R459 - Implemented as W51 and W36~~	~~24/11/93~~	~~ICAO has requested Indonesia to implement as R459.~~ Reviewed by the ARNR/TF/2 and action confirmed.	Indonesia - consider ~~promulgation~~implementation of the route ~~with designator R459 in AIP~~ Singapore - consider implementation of the route.	Indonesia/Singapore	~~TBD~~ ~~Implementation by Indonesia - 25/11/2004~~ ~~Singapore - 20/1/2005~~ ~~Review by ARNR/TF.~~ To be implemented as L504. Target implementation date 12 May 2005. Captured in Chapter 2 of the Route Catalogue. Deficiency Item closed.	~~B~~
	~~Russian Federation~~	~~R466 - Implemented as R446 in Russian Federation. Route requirement is listed in EUR/NAT ANP~~	~~24/11/93~~	~~ICAO has requested Russian Federation to delete R221 and promulgate the route as R466 in AIP. Implemented as R446.~~	ICAO - cooridnating with the ICAO Paris Office to change the route designator in the BANP.	~~Russian Federation~~ ~~ICAO~~	~~Coordination with the Paris Office to amend BANP~~ Subject to BANP amendment. Captured in Chapter 2 of the Route Catalogue. Deficiency Item closed.	~~A~~

APANPIRG REPORTING FORM ON 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****
	~~Indonesia/Malaysia~~	~~R579 - Not implemented~~	~~24/11/93~~	~~ICAO has requested Malaysia to co-ordinate with Indonesia for implementation.~~ Malaysia considered there was no longer requirement due to a low trafficmovement; thus will propose the deletion. Reviewed by ARNR/TF/2 and action confrmed.	~~Indonesia/Malaysia - consider implementation.~~ ICAO - coordinate with Malaysia to delete the route requirement.	~~Indonesia/~~ Malaysia ICAO	~~12/2001~~ ~~Review by ARNR/TF~~ ~~Subject to BANP amendment.~~ To be implemented on 12 May 2005 with proposed route extension. Captured in Chapter 2 of the Route Catalogue. Deficiency Item closed.	~~B~~
	~~India/Oman~~	~~R593 - Not implemented~~	~~24/11/93~~	~~India advised ATM/AIS/SAR/SG/14 that India and Oman had agreed to delete.~~ Reviewed by ARNR/TF/2 and action confrmed.	India proposed deletion and amendment to BANP	~~India/Oman~~ICAO	~~Subject to BANP amendment.~~ Captured in Chapter 2 of the Route Catalogue. Deficiency Item closed.	~~B~~

EXTRACT FROM ATS PLANNING MANUAL (DOC 9426)

CHAPTER 4
ATS ROUTES

4.1 INTRODUCTION

4.1.1 Ideally, aircraft want to fly on the most direct route between their points of departure and their destination because the medium in which aircraft operate makes this possible, except when severe weather phenomena are encountered. However, because of the many conflicting demands made on the use of airspace by its many different users and because of environmental and security considerations, it is frequently not possible to fly the most direct route. Therefore it is necessary to find a reasonable compromise between this desirable objective and reality.

4.1.2 A further point is that, as soon as any degree of control is exercised over air traffic aircraft (and this applies to all types), it is inevitable that it must be channelled into a defined pattern whose extent and complexity must not exceed the intellectual and physical capabilities of the person or persons charged with controlling such traffic. Control must be possible with a mental and physical effort, as far as presentation, analysis and resolution of conflicts is concerned, which can be sustained over prolonged periods of time, since otherwise the continuity in control assured by one person is lost. It is therefore essential that the various individual intentions of those participants making up the traffic are presented in such a manner that they can be related to other, possibly conflicting intentions.

4.1.3 In short, large amounts of air traffic are generally only manageable if they follow pre-established patterns which are arranged not only to facilitate the detection of possible conflicting intentions at an early stage, but which also lend themselves to resolution of such conflicts. At the same time, these pre-established patterns must also provide for the retention of the most direct routes for the majority of air traffic, if they are not to conflict with the need for economy and efficiency of flight operations.

4.1.4 Experience gained in areas where large amounts of air traffic are handled has shown that the most satisfactory manner to meet the general considerations mentioned above is by way of an air traffic services (ATS) route network.

4.2 ESTABLISHMENT OF AN ATS ROUTE NETWORK

4.2.1 The establishment of an actual ATS route network follows, in most cases, an approximate pattern outlined below:

a) operators identify their actual and anticipated requirements for routes between those aerodromes which they use;

b) the sometimes widely diverging demands of individual operators are then consolidated into a reasonably coherent pattern of route requirements;

c) these requirements are then measured against other demands made on the airspace traversed by these routes (military areas, avoidance of overflying sensitive installations on the ground, etc.) and alternative proposals for the exact alignment of individual routes are developed;

d) these alternatives are then presented to and negotiated with the operators concerned until a reasonable compromise is achieved;

e) in the comparatively few cases where the offers which can be made to operators are found to be unacceptable, it should be agreed that the original requirement should be retained for further consideration by all parties concerned until such time as more favourable circumstances permit an alignment which comes reasonably close to that requested by operators.

4.2.2 Experience has shown that adoption of the method described above has generally produced satisfactory results, especially as regards meeting those demands by operators which could not be initially met.

4.2.3 The establishment of a detailed ATS route network can follow two distinct patterns depending on the composition of the air traffic it is intended to serve. In those cases where national operations constitute the bulk of the traffic which is to be accommodated, States should give priority to satisfying these needs. However, adequate arrangements should be made to meet the needs of international operations through appropriate trunk routes and development of these trunk routes must be coordinated on at least a regional basis. Where international operations constitute the majority of the traffic, establishment of an ATS route network needs to be undertaken from the outset on at least a regional basis.

4.2.4 From this it follows that, to a lesser or greater extent, isolated action by States in developing an ATS route network is only possible with respect to ATS routes serving strictly national purposes since such action will, in most cases, have direct and noticeable effects on the traffic flow beyond the area of responsibility of the State concerned. There is evidence available showing that changes made to ATS routes in one limited area can affect air traffic for a considerable distance and traffic which never even intends to operate into the area where the change was made.

4.2.5 Taking the above into account, it would appear that the detailed establishment or review of individual ATS routes, forming the ATS route network, should proceed along the following lines:

a) first establish or review the main trunk routes, serving the major traffic flow within a given area as well as those extending beyond that area;

b) establish or review those routes required to provide access to these trunk routes from and to locations not directly served by them;

c) establish or review those supplementary routes required to accommodate secondary traffic flows or which are required to alleviate the traffic load on the major trunk routes;

d) establish or review those routes of a more local nature which are required to satisfy either specific national needs or those of a specific user group (e.g. helicopter routes, visual flight rules (VFR) routes, military low-level routes, night flying, etc.) and determine if these local routes need to be integrated into the overall route network.

4.2.6 Once the route network has been established or reviewed in accordance with the above, the detailed ATS route network should be reviewed as a whole to evaluate its coherence. Changes to the network should be made only after they have been coordinated with all parties concerned.

4.2.7 The majority of the ATS routes so established will be permanently available; however, there will be cases:

a) when routes are required only for specific periods of the year (seasonal routes) in order to accommodate transit traffic during the holiday season; or

b) where specific routes can be made available only during weekends because they traverse areas which, during the week, are reserved for other activities; or

c) where routes whose use depends on special coordination procedures can only be effected on an *ad hoc* basis for the specific flights involved and depending on the circumstances as they prevail at that time.

4.2.8 Such non-permanent routes should also be included in the ATS route network, however, with a clear indication of the limitations imposed on their use. Such an indication will then serve as a reminder that these routes should be reviewed at frequent intervals with a view to changing their status whenever the use made of them requires.

4.2.9 ATS routes over the high seas should be established only if traffic density warrants a channelling of air traffic in order to ensure its safety and only for such times when traffic density justifies their establishment. In addition, since flight operations over the high seas are more dependent on prevailing meteorological conditions (especially winds aloft) with respect to specific routing, and thus their economy, than is the case for shorter routes over land, it is essential that this be taken into account in the route alignment. Therefore, frequent adjustments should be made, either on a daily basis, as it is now done in the case of the North Atlantic route structure, or at such intervals as are required to take account of significant changes in the operating environment.

4.2.10 The status given to individual ATS routes, either as controlled ATS routes (generally in the form of airways) or as advisory routes or as uncontrolled routes, is primarily determined by the amount and type of traffic which is using the route as well as other relevant factors (see also Part I, Section 2, Chapter 3).

4.2.11 After the alignment and status of the ATS routes have been established or reviewed, it will be necessary to determine the use of flight levels on each of those routes which are to be established as controlled ATS routes. To this extent a series of flight levels are prescribed (normally “ODD” and “EVEN”) which should be used in relation to the direction of flight on the route concerned. The principles governing such arrangements of flight levels include the following considerations:

a) the majority of air traffic operating along a controlled ATS route or portion thereof, should, while in level flight, be permitted to remain at its assigned flight level without a need for changing levels simply because the orientation of the route in relation to compass direction changes;

b) at intersections of more than two controlled ATS routes, the likelihood that aircraft, operating on any of these routes and approaching the intersection, find themselves at the same level is kept to a minimum, thus avoiding the need for systematic control interventions in order to restore adequate separation between them.

4.2.12 Experience has shown that, in the case of more complex ATS route networks (e.g. European (EUR) region) this latter objective can only be achieved if the assignment of flight levels on certain routes is reversed at certain points along the route, depending on the situation at different intersections affecting the route in question. In this case, it is important that a change in flight level be established at a location well away from a flight information region (FIR) or control area (CTA) boundary or a transfer of control point (if different from the boundary) or at such a location where traffic along the

route is least dense, thus permitting the change in level without undue difficulties to either the aircraft or ATS.

4.2.13 On ATS routes carrying a particularly high load of traffic, it may be advisable to establish one-way routings for each direction of flight between the points determining the terminals of such routes. In this case consecutive flight levels may be used on each of the two one-way routes, except when this is not feasible for the reasons stated in 4.2.11 b) above.

4.2.14 The worldwide designation of ATS routes is governed, in general, by provisions contained in Annex 11, Appendix 1. There are, however, a number of aspects involved in this matter which need more detailed consideration. These are:

a) regard for flight planning and description of the route of flight required for air traffic control (ATC) clearances;

b) avoidance of unnecessary complications in the coordination involved in the assignment of designators;

c) taking into account the effects of the use of automation.

4.2.15 With respect to flight planning and ATC clearances, the system, used to assign designators to individual ATS routes within an ATS route network, should be arranged primarily so that the large number of repetitive air transport operations (scheduled and non-scheduled commercial flights, certain routine military operations) are able to indicate, in their flight planning, the route of flight with the least number of designators. Fewer designators also permit ATC to keep clearances short and concise and to clear such flights with the least amount of effort. In addition, different designators, which in air-ground communications could be mistaken for each other, should be assigned so that, even when they are misunderstood, the error becomes obvious immediately by the difference in location of their assignment. In this respect account should also be taken of differences in pronunciation by pilots with different mother tongues.

4.2.16 In order to avoid duplication of designators, it will be necessary to coordinate their assignment on at least a regional basis. It is essential that the method chosen for doing this is as simple as possible, does not require excessive coordination and is done with the assistance of the regional office of ICAO concerned. It must also provide for ample capacity to accommodate future requirements for designators without requiring a change of the system itself.

4.2.17 Finally, the assignment of designators should be made so that changes to individual designators are kept to a minimum. This consideration is particularly important in those cases where ATC units providing service along the routes in question are using automatic ATC equipment, primarily because experience has shown that modifications to the computer programmes introduce considerable delays in bringing the changed designators into effect (see also Part II, Section 2, Chapter 9).

EXTRACT FROM MANUAL ON AIRSPACE PLANNING METHODOLOGY (DOC 9689)

and airspace management initiatives being pursued by forums such as the ICAO APANPIRG, the ICAO Indian Ocean Air Traffic Services Co-ordinating Group (IOACG) and the Informal South Pacific Air Traffic Services Co-ordinating Group (ISPACG).

3. WORKING PRINCIPLES FOR THE CONSTRUCTION OF AIR ROUTES

3.1 The fourteen working principles developed by the review team were as follows:

a) Air routes will satisfy appropriate ICAO Standards and Recommended Practices (SARPs).

b) Where possible, routes should be established to increase efficiency, reduce complexity and provide additional benefits to users.

c) Separation assurance principles should apply:

1) routes should be established with sufficient separation to operate independently,

2) where possible, routes in a radar environment should be procedurally (laterally) separated, and

3) segregated tracks should be established on medium/high density routes and be determined by set criteria.

d) Where required, routes should be constructed to support terminal area management procedures, e.g. SIDs/SRDs/STARs and flow management techniques, as applicable.

e) Holding patterns should be laterally separated from other tracks and tolerances captured within a single sector.

f) A maximum of two routes containing high density traffic should be blended at a single point. Inbound tracks should be blended at <90 degrees. Up to three low density traffic routes may be blended at a single point.

g) Multiple crossing points involving major traffic flows should be avoided.

h) En-route crossings should be minimized. Where crossings are inevitable they should, where possible, be established for cruise configuration. Such crossings should occur, wherever possible, within radar coverage.

i) Airspace sectorization should take account of the route structure and workload considerations. If necessary, airspace should be re-sectorized to accommodate changes to the air route configuration.

j) Routes should be constructed so as to reflect the optimum navigational capabilities of the principle users (e.g. RNAV or conventional).

k) The prime determinant should not be the minimum number of track miles. A small increase in track miles may optimize traffic flows, avoid unpredicted delays or avoid holding requirements.

l) Due allowance should be given to existing and future flight data processing/radar data processing capability (i.e. notification of messages for auto hand-off, etc.).

m) A periodic safety audit and review process of routes should be conducted to test both demand against capacity criteria and the principles. This should ideally be done in parallel with the annual sectorization review.

n) Routes that can no longer be justified should be deleted.

4. MAJOR FEATURES OF THE REVISED ROUTE STRUCTURE

4.1 The major features of the revised ATS and RNAV route structure included:

a) improved safety;

b) greater flexibility in flight planning long-haul domestic and international operations;

Note.— Industry studies indicated that benefits in excess of A$20 million annually would result, primarily from annual fuel-burn savings of approximately 25 000 tonnes.

c) significant efficiencies for ATC through a reduction in workload problems caused by lateral separation constraints on portions of the previous route structure;

d) introduction of a greater number of laterally separated one-way routes, providing "racetrack" patterns;

e) more appropriate representation of the type of operations that do operate in the upper airspace, i.e. RNAV equipped operators; and

DRAFT
Proposal for Amendment of Basic Air Navigation Plan
(Serial No. APAC 05/9 – ATS)

a) **Plan:** ASIA/PAC, Doc 9673

b) **Proposed Amendment:** **AMEND** requirement for R588 as follows:

~~PHUKET~~
~~RELIP 0804.4N 10026.5E~~
~~KAKET 1051.0N 10236.0E~~
PHNOM PENH
PLEIKU
(cf. Table ATS 1, Chart ATS 3A)

ADD requirement for R589 as follows:

PHNOM PENH
BENSA
SURAT THANI
(cf. Table ATS 1, Chart ATS 3A)

c) **Originated by:** Cambodia and Thailand

d) **Originators reasons for amendment:** In order to facilitate the flow of traffic and improve operational efficiency of international air traffic within the Bangkok, Ho Chi Minh and Phnom Penh FIRs, a more direct ATS route as proposed is to be established.

e) **Intended date of Implementation:** 12 May 2005

f) **Proposal circulated to the following States and Organizations:**

Bangladesh
Cambodia *
China
(cc: Hong Kong, China)
(cc: Macao, China)
India
Indonesia
Lao People's
Democratic Republic
Malaysia
Philippines
Singapore
Thailand *
Viet Nam
IATA
IFALPA

* For information

g) **Secretariat comments:** This route meets the ATS providers' and users' requirements to reduce the distance between Hong Kong, China and Phuket, as well as to improve operational efficiency. This route improvement will reduce fuel consumption, thereby deriving economic and environmental benefits in line with APANPIRG guidelines for ATS route improvements.

……

ATS ROUTE PROPOSED BY SRI LANKA

DRAFT
Proposal for Amendment of Basic Air Navigation Plan
(Serial No. APAC 05/6 – ATS)

a) **Plan:** ASIA/PAC, Doc 9673

b) **Proposed Amendment:** **ADD** requirement for M512 as follows:

KATUNAYAKE	
ANIVE	0540.9N 07800.0E
DOPDO	O432.5N 07417.4E

(cf. Table ATS 1, Chart ATS 3A)

c) **Originated by:** Sri Lanka

d) **Originators reasons for amendment:** In order to improve operational efficiency of international traffic between Colombo and Male, operators requested a route to avoid having to transit through a short portion of the Chennai FIR to reduce ATC coordination and pilot and controller workload.

e) **Intended date of Implementation:** 12 May 2005

f) **Proposal circulated to the following States and Organizations:**

Australia	Singapore
India	Sri Lanka *
Indonesia	Thailand
Japan	IATA
Malaysia	IFALPA
Maldives	

* For information

g) **Secretariat comments:** The provision of this route will simplify ATC coordination by reducing the number of area control centres involved from three to two ACCs with Colombo ACC coordinating directly with Male ACC. This route is slightly longer than the existing route, G465 but the main operators and the ACCs concerned will benefit from improved operational efficiency.

……

Detail of ATS Routes Proposed by Indonesia

NAVAID Reporting point	Latitude	Longitude	From / To (True)	Distance (NMil)	Remarks	Upper FL / Lower FL
L644						
DKI	05 57 40.30 S	107 02 07.88 E	.... /			
ABASA	04 56 51.90 S	107 15 39.70 E	/ 193	62	DKI ⇦ ABASA	
MIMIX	03 19 19.92 S	107 37 17.31 E	/ 193	99	ABASA ⇦ MIMIX	FL460
TPN	02 43 28.35 S	107 45 11.51 E	/ 192	37	MIMIX ⇦ TPN	FL285
AGPUD	01 34 22.00 S	107 25 20.64 E	/ 164	72	TPN ⇦ AGPUD	
KIKOR	00 23 58.31 S	107 05 06.99 E	/ 164	73	AGPUD ⇦ KIKOR	
M635						
TPG	00 54 12.76 N	104 30 52.42 E	.... /			
SANOS	00 42 00.00 S	106 19 00.00 E	131 / 311	145	TPG ⇔ SANOS	
AGPUD	01 34 22.00 S	107 25 20.64 E	128 / 308	84	SANOS ⇔ AGPUD	
EXOMI	02 54 47.16 S	109 07 10.56 E	128 / 308	130	AGPUD ⇔ EXOMI	FL460
RAMPY	06 15 00.58 S	113 20 45.64 E	129 / 309	324	EXOMI ⇔ RAMPY	FL285
ANIVI	12 00 00.00 S	118 40 24.60 E	138 / 318	471	RAMPY ⇔ ANIVI	
A576						
TPG	00 54 12.76 N	104 30 52.42 E	.... /			
SANOS	00 42 00.00 S	106 19 00.00 E	131 / 311	145	TPG ⇔ SANOS	
SABIL	04 01 08.65 S	109 56 18.70 E	133 / 313	295	SANOS ⇔ SABIL	FL280
BLI	08 45 02.05 S	115 09 47.90 E	133 / 313	424	SABIL ⇔ BLI	FL200
ATMAP	12 00 00.00 S	118 15 18.00 E	137 / 317	268	BLI ⇔ ATMAP	
M774						
TPG	00 54 12.76 N	104 30 52.42 E	.... /			
KIKOR	00 23 58.31 S	107 05 06.99 E	117 / 297	173	TPG ⇔ KIKOR	
BOMAX	00 54 09.55 S	108 05 35.42 E	116 / 296	68	KIKOR ⇔ BOMAX	
BOLSA	01 12 08.01 S	108 41 12.14 E	117 / 297	40	BOMAX ⇔ BOLSA	FL460
KIBON	01 50 00.00 S	110 00 00.00 E	116 / 296	87	BOLSA ⇔ KIBON	FL285
PKN	02 43 35.33 S	111 41 45.51 E	118 / 298	115	KIBON ⇔ PKN	
KOBAS	03 00 00.00 S	112 14 36.00 E	116 / 296	37	PKN ⇔ KOBAS	
KEVOK	04 20 27.36 S	114 56 30.26 E	116 / 296	181	KOBAS ⇔ KEVOK	
KEONG	06 55 16.44 S	120 01 58.44 E	117 / 297	344	KEVOK ⇔ KEONG	
KIKEM	09 52 54.00 S	126 07 24.00 E	117 / 297	407	KEONG ⇔ KIKEM	
A464						
TPG	00 54 12.76 N	104 30 52.42 E	.... /			
KIKOR	00 23 58.31 S	107 05 06.99 E	117 / 297	173	TPG ⇔ KIKOR	
BOMAX	00 54 09.55 S	108 05 35.42 E	116 / 296	68	KIKOR ⇔ BOMAX	
BOLSA	01 12 08.01 S	108 41 12.14 E	117 / 297	40	BOMAX ⇔ BOLSA	FL290
KIBON	01 50 00.00 S	110 00 00.00 E	116 / 296	87	BOLSA ⇔ KIBON	FL200
PKN	02 43 35.33 S	111 41 45.51 E	118 / 298	115	KIBON ⇔ PKN	
KOBAS	03 00 00.00 S	112 14 36.00 E	116 / 296	37	PKN ⇔ KOBAS	
KEVOK	04 20 27.36 S	114 56 30.26 E	116 / 296	181	KOBAS ⇔ KEVOK	
KEONG	06 55 16.44 S	120 01 58.44 E	117 / 297	344	KEVOK ⇔ KEONG	
KIKEM	09 52 54.00 S	126 07 24.00 E	117 / 297	407	KEONG ⇔ KIKEM	
A 211						
VTW	04 19 28.00 N	118 08 24.00 E	....			
BAXAL	04 02 20.00 N	117 58 34.00 E	210 / 030	20	VTW ⇔ BAXAL	
TRK	03 19 32.18 N	117 33 41.88 E	210 / 030	49	BAXAL ⇔ TRK	FL280
LADIB	02 37 44.76 N	120 07 59.52 E	105 / 285	160	TRK ⇔ LADIB	FL200
DIANI	01 45 32.16 N	123 20 52.49 E	105 / 285	200	LADIB ⇔ DIANI	
MWB	01 19 23.70 N	124 57 17.61 E	105 / 285	100	DIANI ⇔ MWB	
M772						
DKI	05 57 40.30 S	107 02 07.88 E	.... /			
ATOSO	05 08 52.48 S	107 28 01.60 E	028 / 208	55	DKI ⇔ ATOSO	
AMBOY	04 08 00.00 S	108 10 00.00 E	035 / 215	74	ATOSO ⇔ AMBOY	
AKULA	03 07 11.56 S	108 57 03.33 E	038 / 218	77	AMBOY ⇔ AKULA	
KIBON	01 50 00.00 S	110 00 00.00 E	039 / 219	99	AKULA ⇔ KIBON	FL460
OSUKA	01 17 30.00 S	110 24 42.00 E	037 / 217	41	KIBON ⇔ OSUKA	FL285
LOSDA	00 18 29.16 S	110 51 00.00 E	024 /	64	OSUKA ⇨ LOSDA	
ANIPU	01 12 43.56 N	111 31 39.00 E	024 /	99	LOSDA ⇨ ANIPU	
SBU	02 15 54.00 N	111 59 48.00 E	024 /	69	ANIPU ⇨ SBU	

NAVAID Reporting point	Latitude	Longitude	From / To	Distance (NMil)	Remarks			Upper FL / Lower FL
L504								
MWB	01 19 23.70 N	124 57 17.61 E	....					
APABI	00 19 16.32 S	119 49 31.08 E	252 / 072	325	MWB	⇔	APABI	
BIDAM	00 41 13.20 S	118 49 31.08 E	250 / 070	64	APABI	⇔	BIDAM	
BPN	01 14 44.48 S	116 56 25.07 E	254 / 074	118	BIDAM	⇔	BPN	
GOPLO	01 04 40.44 S	115 49 57.36 E	279 / 099	67	BPN	⇔	GOPLO	
ELANG	00 55 35.64 S	114 50 03.10 E	279 / 099	61	GOPLO	⇔	ELANG	FL460
ROTAN	00 31 51.37 S	112 17 07.63 E	279 / 099	155	ELANG	⇔	ROTAN	FL285
IDADI	00 21 12.96 S	111 08 35.16 E	279 / 099	69	ROTAN	⇔	IDADI	
LOSDA	00 18 29.16 S	110 50 60.00 E	279 / 099	18	IDADI	⇔	LOSDA	
PNK	00 04 44.95 S	109 22 30.37 E	279 / 099	90	LOSDA	⇔	PNK	
GOBIK	00 00 00.00 N	108 06 06.00 E	273 093	73	PNK	⇔	GOBIK	
TPG	00 54 12.76 N	104 30 52.42 E	284 / 104	223	GOBIK	⇔	TPG	
N876								
PKN	02 43 35.33 S	111 41 45.51 E	....					
IKAPI	04 57 21.69 S	113 58 36.81 E	134 / 314	191	PKN	⇔	IKAPI	
HOSTY	06 42 51.78 S	115 38 59.54 E	137 / 317	145	IKAPI	⇔	HOSTY	
NONTO	07 36 02.52 S	116 32 01.32 E	135 / 315	75	HOSTY	⇔	NONTO	FL460
OLBAB	09 39 54.36 S	118 34 30.36 E	136 / 316	173	NONTO	⇔	OLBAB	FL285
ONOXA	12 00 00.00 S	120 52 42.00 E	136 / 316	195	OLBAB	⇔	ONOXA	
P763								
BLI	08 45 02.05 S	115 09 47.90 E	.... /					
KOLTA	06 27 53.01 S	113 49 40.27 E	330 / 150	158	BLI	⇔	KOLTA	
PKN	02 43 35.33 S	111 41 45.51 E	330 / 150	257	KOLTA	⇔	PKN	FL460
OSUKA	01 17 30.00 S	110 24 42.00 E	318 / 138	115	PKN	⇔	OSUKA	FL285
PNK	00 04 44.95 S	109 22 30.37 E	319 / 139	95	OSUKA	⇔	PNK	
ARUPA							ARUPA	
ATS ROUTE G464								
BLI	08 45 02.05 S	115 09 47.90 E	.... /					
KOLTA	06 27 53.01 S	113 49 40.27 E	330 / 150	158	BLI	⇔	KOLTA	
PKN	02 43 35.33 S	111 41 45.51 E	330 / 150	257	KOLTA	⇔	PKN	FL280
OSUKA	01 17 30.00 S	110 24 42.00 E	318 / 138	115	PKN	⇔	OSUKA	FL200
PNK	00 04 44.95 S	109 22 30.37 E	319 / 139	95	OSUKA	⇔	PNK	
ARUPA							ARUPA	
P648								
DKI	05 57 40.30 S	107 02 07.88 E	.... /					
ATOSO	05 08 52.48 S	107 28 01.60 E	028 / 208	55	DKI	⇔	ATOSO	
AMBOY	04 08 00.00 S	108 10 00.00 E	035 / 215	74	ATOSO	⇔	AMBOY	
AKULA	03 07 11.56 S	108 57 03.33 E	038 / 218	77	AMBOY	⇔	AKULA	
KIBON	01 50 00.00 S	110 00 00.00 E	039 / 219	99	AKULA	⇔	KIBON	FL460
OSUKA	01 17 30.00 S	110 24 42.00 E	037 / 217	41	KIBON	⇔	OSUKA	FL285
OMEGA	00 23 00.00 S	111 07 12.00 E	038 / 218	69	OSUKA	⇔	OMEGA	
OKADA	01 34 00.00 N	112 38 00.00 E	038 / 218	148	OMEGA	⇔	OKADA	
FIR KINABALU							FIR KINABALU	
ATS ROUTE B592								
DKI	05 57 40.30 S	107 02 07.88 E	.... /					
ATOSO	05 08 52.48 S	107 28 01.60 E	028 / 208	55	DKI	⇔	ATOSO	
AMBOY	04 08 00.00 S	108 10 00.00 E	035 / 215	74	ATOSO	⇔	AMBOY	
AKULA	03 07 11.56 S	108 57 03.33 E	038 / 218	77	AMBOY	⇔	AKULA	
KIBON	01 50 00.00 S	110 00 00.00 E	039 / 219	99	AKULA	⇔	KIBON	FL280
OSUKA	01 17 30.00 S	110 24 42.00 E	037 / 217	41	KIBON	⇔	OSUKA	FL200
OMEGA	00 23 00.00 S	111 07 12.00 E	038 / 218	69	OSUKA	⇔	OMEGA	
OKADA	01 34 00.00 N	112 38 00.00 E	038 / 218	148	OMEGA	⇔	OKADA	
FIR KINABALU							FIR KINABALU	
ATS ROUTE M522								
BLI	08 45 02.05 S	115 09 47.90 E	.... /					
HOSTY	06 42 51.78 S	115 38 59.54 E	013 / 193	125	BLI	⇔	HOSTY	
BISOM	02 19 23.34 S	115 50 37.42 E	003 / 183	262	HOSTY	⇔	BISOM	FL460
GOPLO	01 04 40.44 S	115 49 57.36 E	359 / 179	74	BISOM	⇔	GOPLO	FL285
MAMOK	04 05 06.00 N	115 47 12.00 E	359 / 179	308	GOPLO	⇔	MAMOK	

NAVAID Reporting point	Latitude	Longitude	From / To (True)	Distance (NMil)	Remarks	Upper FL / Lower FL
BLI	08 45 02.05 S	115 09 47.90 E	.... /			
GALKO	06 49 35.51 S	115 04 53.85 E	358 / 178	115	BLI ⇔ GALKO	
KEVOK	04 20 27.36 S	114 56 30.26 E	357 / 177	149	GALKO ⇔ KEVOK	FL280
ELANG	00 55 35.64 S	114 50 03.10 E	358 / 178	204	KEVOK ⇔ ELANG	FL200
MAMOK	04 05 06.00 N	115 47 12.00 E	011 / 191	304	ELANG ⇔ MAMOK	
ATS ROUTE P645						
SBY	07 22 43.37 S	112 47 40.23 E	.... /			
RAMPY	06 15 00.58 S	113 20 45.64 E	026 / 206	75	SBY ⇔ RAMPY	
ONADO	04 44 57.84 S	113 45 55.80 E	016 / 196	93	RAMPY ⇔ ONADO	FL460
ELANG	00 55 35.64 S	114 50 03.10 E	016 / 196	237	ONADO ⇔ ELANG	FL285
AGSON	02 15 00.00 N	114 51 24.00 E	000 / 180	190	ELANG ⇔ AGSON	
ATS ROUTE M768						
ELBIS	09 05 18.00 S	127 43 42.00 E	.... /			
PORAK	04 58 38.84 S	124 00 23.52 E	318 / 138	331	ELBIS ⇔ PORAK	
LADOP	00 01 42.36 N	119 30 40.87 E	318 / 138	404	PORAK ⇔ LADOP	FL460
MAMOK	04 05 06.00 N	115 47 12.00 E	317 / 137	331	LADOP ⇔ MAMOK	FL285
ATS ROUTE B583						
ELBIS	09 05 18.00 S	127 43 42.00 E	.... /			
PORAK	04 58 38.84 S	124 00 23.52 E	318 / 138	331	ELBIS ⇔ PORAK	FL280
LADOP	00 01 42.36 N	119 30 40.87 E	318 / 138	404	PORAK ⇔ LADOP	FL200
MAMOK	04 05 06.00 N	115 47 12.00 E	317 / 137	331	LADOP ⇔ MAMOK	

Proposal for Amendment of Basic Air Navigation Plan
(Serial No. APAC 05/5 – ATS/AIS/SAR)

a) **Plan:** ASIA / PAC, Basic ANP Doc 9673

b) **Proposed Amendment:** Editorial note: Amendments are arranged to show "deleted text" using strikeout (~~text to be deleted~~), and "added text" with grey shading (text to be inserted).

Add requirements of ATS routes as follows:

i) L504
SINGAPORE
MANADO

ii) M522
VINIK 0838.5N 11613.8E
KOTA KINABALU
MAMOK 0405.1N 11547.2E
DENPASAR

iii) M635
SINGAPORE
RAMPY 0615.0S 11320.8E
CURTIN

iv) M774
SINGAPORE
KIKEM 0952.9S 12607.4E

iv) N645
BRUNEI
ELANG 00 55 35.64S 114 50 03.10E
SURABAYA

v) P648
KOTA KINABALU
JAKARTA

(cf. TABLE ATS 1, CHART ATS 3D)

Amend requirements of ATS routes as follows:

i) A211
MANADO
TARAKAN
TAWAU

ii) M768
DARWIN
BRUNEI

DOGOG 0525.3N 11407.5E
ASISU 0559.9N 11319.6E
TODAM 0631.7N 11235.4E
LAGOT 0716.6N 11132.5E
AKMON 0812.8N 11013.4E
~~MAXON~~MOXON 0849.5N 10921.3E
DAGAG 0927.8N 10826.5E
TANSONNHAT

iii) N875
DENPASAR
PONTIANAK
ARUPA 0031.7N 10848.7E
NIMIX 0124.9N 10759.2E
BOBOB 0222.1N 10706.1E
ENREP 0452.4N 10414.8E

(cf. TABLE ATS 1, CHART ATS 3D)

c) **Originated by:** Indonesia

d) **Originators reasons for amendment:** Indonesia is implementing a programme of restructuring airspace and ATS routes within the Bali, Biak, Jakarta and Ujung Pandang FIRs. The new Makassar Area Control Centre replacing the Ujung Pandang and Bali ACCs will be ready for service on 12 May 2005. Consequently, the ATS routes in this proposal form part of the airspace restructuring improvements making use of RNAV and RNP 10.

e) **Intended date of Implementation:** 12 May 2005

f) **Proposal circulated to the following States and organizations**:

Australia
Brunei Darussalam
Cambodia
China
(cc: Hong Kong, China)
(cc: Macao, China)
India
Indonesia
Japan
Lao People's Democratic Republic
Malaysia
Myanmar
Netherlands, the Kingdom of *
New Zealand
Papua New Guinea
Philippines
Republic of Korea
Singapore
Solomon Islands
Sri Lanka
Thailand
United States
Vanuatu
Viet Nam
IATA
IFALPA
IFATCA

* For information

g) **Secretariat comments:**

a) The requirements for the above ATS routes proposed by Indonesia form part of a major airspace restructuring of Indonesia FIRs, which includes the consolidation of the present four FIRs: Bali, Biak, Jakarta and Ujung Pandang into two FIRs: Jakarta and Ujung Pandang. This will improve overall operational efficiency and the ATS route network. The proposal was presented at the First Meeting of the ATS Route Network Review Task Force (October 2004, Bangkok) and finalized following subsequent coordination between the parties concerned.

b) The FIR boundary changes and the revised ATS routes will be implemented simultaneously with the commencement of operations of the Makassar ACC. This will result in significant enhancement to inter-regional flow of air traffic overflying Indonesian FIRs as well as air traffic departing to or arriving at Indonesian airports.

……

DRAFT
Proposal for Amendment of Basic Air Navigation Plan
(Serial No. APAC 05/8 –ATS)

a) **Plan:** ASIA/PAC, Doc 9673

b) **Proposed Amendment:** **ADD** requirement for R575 as follows:

PAPRA	15 46.0N 107 11.0E
LEKOB	14 07.8N 105 31.2E
KOH KONG	11 36.9N 103 00.0E
UPNEP	09 42.1N 100.29.8E
SURAT THANI	

(cf. Table ATS 1, Chart ATS 3A)

c) **Originated by:** Cambodia, Lao People's Democratic Republic and Thailand

d) **Originators reasons for amendment:** In order to facilitate the flow of traffic and improve operational efficiency of international air traffic within the Bangkok, Phnom Penh and Vientiane FIRs, a more direct ATS route as proposed is to be established.

e) **Intended date of Implementation:** 12 May 2005

f) **Proposal circulated to the following States and Organizations:**

Bangladesh	Malaysia
Cambodia *	Myanmar
China	Philippines
(cc: Hong Kong, China)	Singapore
(cc: Macao, China)	Thailand *
India	Viet Nam
Indonesia	IATA
Japan	IFALPA
Lao People's Democratic Republic *	

* For information

g) **Secretariat comments:** This route meets ATS providers' and users' requirements to reduce the distance between Hong Kong China and Phuket and improve operational efficiency. This route will reduce fuel consumption thereby deriving economic and environmental benefits in line with APANPIRG guidelines for ATS route improvements.

……

DRAFT
Proposal for Amendment of Basic Air Navigation Plan
(Serial No. APAC 05/7 – ATS)

a) **Plan:** ASIA/PAC, Doc 9673

b) **Proposed Amendment:** **AMEND** requirement for R345 as follows:

~~VIENTIANE~~
~~TAHAEK~~
~~PAKSE~~
~~STUNG TRENG~~
~~RUPED 1111.0N 10548.2E~~
UDON THANI
UBON
RULOK
PHNOM PENH

(cf. Table ATS 1, Chart ATS 3A)

c) **Originated by:** Cambodia and Thailand

d) **Originators reasons for amendment:** In order to facilitate the flow of traffic and improve operational efficiency of international air traffic between Vientiane and Phnom Penh within the Bangkok and Phnom Penh FIRs, a more direct ATS route as proposed is to be established.

e) **Intended date of Implementation:** 16 June 2005

f) **Proposal circulated to the following States and Organizations:**

Bangladesh
Cambodia *
China
(cc: Hong Kong, China)
(cc: Macao, China)
India
Indonesia
Japan
Lao People's
Democratic Republic
Malaysia
Myanmar
Philippines
Singapore
Thailand *
Viet Nam
IATA
IFALPA

* For information

g) **Secretariat comments:** This route significantly reduces the distance between Vientiane and Phnom Penh and opens up a more direct route that also serves destinations beyond. This route will reduce fuel consumption thereby deriving economic and environmental benefits in line with APANPIRG guidelines for ATS route improvements.

……

STATUS OF SUBMISSION OF ATS DATA BY STATES

States	Submission of the Data
Australia	
Bangladesh	
Bhutan	
Cambodia	√
China	√
Hong Kong, China	√
Cook Islands	
DPR Korea	
Fiji	
India	√
Indonesia	√
Japan	√
Kiribati	
Lao PDR	√
Malaysia	√
Maldives	
Marshall Islands	
Micronesia	
Mongolia	
Myanmar	
Nauru	
Nepal	
New Zealand	√
Pakistan	
Palau	
Papua New Guinea	
Philippines	√
Republic of Korea	√
Singapore	
Solomon Islands	
Sri Lanka	√
Thailand	√
Tonga	
United States	√
Vanuatu	
Viet Nam	

(As of 18 February 2005)

ARNR/TF/2 — WORK PLAN

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
1	Develop Route Catalogue: a) Prepare preamble for Introduction b) Update route data c) Include cross referencing between chapters d) Provide explanatory remarks e) Include details of cost benefits and environmental impact f) Include the date new route proposals were listed in Catalogue	30 June 20005	All parties	On-going	Regional Office to coordinate and compile final draft for distribution to TF members. Regional office to submit to ATM/AIS/SAR/SG/15, 25-29 July 2005 and APANPIRG/16, 22-26 August 2005
2	Transfer Route Catalogue and database management to Regional Office	I July 2005	IATA Regional Office	On-going	
4	Review and approve draft BANP amendments	As appropriate	States concerned Regional Office	On-going	States responsible for originating proposals to complete proposals and submit to Regional Office for circulation for comments as per ICAO procedures.
5	Prepare and submit new BANP amendments for routes recommended for implementation by ARNR/TF	As appropriate	States concerned Regional Office	On-going	Regional Office to process proposals
6	Prepare AIP Supplement to implement route changes	As appropriate	States concerned	On-going	To observe AIRAC cycle as per Annex 15 and for major changes, allow 56 days prior notification

	ACTION ITEM	TIME FRAME	RESPONSIBLE PARTY	STATUS	REMARKS
7	Issue trigger NOTAMs to implement route changes	As appropriate	States concerned Regional Office	On-going	7days advance notification
8	Review progress and update BANP amendment proposals	I June 2005	Regional Office	On-going	Prepare an updated list of all BANP amendment proposals for ARNR/TF/3
9	Develop and submit future requirements for ATS routes	ARNR/TF/3	States Users	On-going	Regional office to incorporate new proposals in the Route Catalogue

----