



International Civil Aviation Organization and the Directorate General of Air Communication, Indonesia

SIXTH MEETING OF AERONAUTICAL TELECOMMUNICATION NETWORK (ATN) TRANSITION TASK FORCE OF APANPIRG



Bali, Indonesia, 26-30 April 2004

Agenda Item 1: Report on other ICAO Working Group Activities

REPORT ON APANPIRG ATNTTF WORKING GROUP

(Presented by the Rapporteur of the ATNTTF Working Group)

SUMMARY

This Information Paper provides a report on the work activity that was performed by the ATNTTF Ad Hoc Working Group during 2003/04.

1. INTRODUCTION

The information contained in this paper is to report on the work activity of the APANPIRG ATNTTF Ad Hoc Working Group that was performed since the fifth meeting of the APANPIRG ATNTTF.

2. BACKGROUND

2.1 The ATNTTF Ad Hoc Working Group (formally known as the ATNTTF Ad Hoc Working Group B) was established by the ATNTTF at its 2nd meeting in March 2000 at Chiang Mai. T

2.2 The working group is mainly responsible for the development of a number of ATN technical documents that were identified in Task 3 of the Subject/Task List. Such documents included Security (which is now referred to as System Integrity), Performance and System Management.

2.3 In addition, the working group was also tasked to develop further documents that were identified in Task 6 of the Subject/Task List. These included the ATN Router ICD, AMHS ICD, Directory Services, Routing policy for IDRP and an AIDC ICD.

2.4 At the 4th meeting of the ATNTTF further tasks were assigned to the Working Group including Task 7 and Task 8. Additional tasks were also raised at the 5th meeting of the ATNTTF which were assigned to the Working Group for deliberation.

2.5 The ATNTTF Ad Hoc Working Group is made up of volunteers from seven States and Organisations from the Asia Pacific region. Their responsibilities are to carry out research and development of the required technical ATN documents that will benefit the Asia Pacific Region.

2.6 The States and Organisations that are current members of the ATNTTF Ad Hoc Working Group include Australia, Fiji, Hong Kong China, Japan, Singapore, Thailand, United States of America and SITA.

2.7 The working group can be joined by other States and organisations within the Asia Pacific region willing to participate in its activities as assigned by the ATNTTF.

3. REPORT ON ACTIVITIES PERFORMED DURING 2003/4

3.1 Members of the Working Group (WG) have worked diligently throughout the year to try and meet target dates set by the Task Force and by the WG. The WG was able to hold three meetings during 2003/04.

3.2 The first meeting was held from 7th to 9th of October 2003 in Van Nuys, CA, USA and was hosted by the FAA and ITT at ITT Industries facilities.

3.3 The second meeting was held from 17th to 18th of November 2003 in Bangkok to coincide with the ACP Working Group N second meeting and was hosted by Air Radio of Thailand. The third meeting was held on 2nd of February 2004 in Chiang Mai to coincide with the ATN Seminar and was hosted by Air Radio of Thailand.

3.4 It was noted at the third meeting, the working group's appreciation and acknowledgement of Aerothai for their excellent support in providing meeting accommodations and the use of their excellent facilities and administrative support.

3.5 Details of the meetings can be found in the abbreviated versions of the minutes included as Appendix A to this paper.

3.6 It was also noted that at the last meeting of the WG that its name be changed from the ATNTTF Ad Hoc Working Group to the ATNTTF Working Group.

4. ACHIEVEMENTS

The tasks achieved by the ATNTTF Working Group include:

- First release of ICD for ATS Message Handling System (AMHS) in Asia/Pacific Region (ATNTTF/4);
- First release of Documentation Map for the Asia Pacific ATN Transition (ATNTTF/4);
- First release of the Asia/Pacific Regional Interface Control Document for ATN Ground to Ground Router for ISO/IEC 8208 sub network (ATNTTF/5);
- First release of Guidance Material for Use of the Public Internet for AFTN (ATNTTF/5);
- Plan release of Asia/Pacific ATN IDRP Routing Policy (ATNTTF/6);
- Plan release of the technical document on Use of Directory Services (ATNTTF/6);
- Plan release of Regional System Management Transition Guideline Document (ATNTTF/6);
- Plan release of an ATN routing description document (ATNTTF/6);

- Plan release of an AMHS description document (ATNTTF/6);
- Plan release of ATN Performance Document (ATNTTF/6); and
- Plan release of the AMHS Naming Registration Form (ATNTTF/6).

Assigned work to be completed by the ATNTTF Ad Hoc Working Group includes the following:

- Asia/Pacific AMHS MTA Routing Policy;
- Asia/Pacific Policy for ATN System Integrity; and
- Asia/Pacific Regional Interface Control Document for ATN ATS Interfacility Data Communications (AIDC); and
- Development of operating procedures required for AMHS;

A number of other tasks requested by the Task Force have also been actioned by the WG. They included:

- Review of the CNS-1C Table structure;
- Review of X.25 as a viable protocol to be used in the region; and
- Review of AMHS routing impact during AFTN to AMHS Transition.

5. OUTSTANDING ISSUES TO BE DISCUSSED BY APANPIRG ATNTTF

The WG had a number of issues which hampered its progress in completing some of the technical documents. These issues are listed below and should be discussed at the ATNTTF/6 meeting.

- **AMHS MTA Routing Policy.** The WG discussed in length the various options in adopting a MTA routing policy that best suited the region and yet be adaptable to operate between other inter-regional state boundaries. Some of the options included following the method already adopted for AFTN (dedicated MTA routing paths) to all MTAs within the region shall be able to route to all other MTAs in the region with designated MTAs that allow routing to other inter-regional State's MTAs. It was decided by the WG that due to a lack of operational experience and a number of AFTN to AMHS transitional issues that needed to be addressed that further work should be suspended in developing the MTA routing policy document. The WG recommends that a smaller group of current or near future AMHS operators be established to meet and share information to sort out these issues as soon as possible and for that group to be formed at the ATNTTF/6 meeting.
- **Regional System Integrity Policy.** The WG discussed the issues associated with ATN security and the development of a system integrity policy. As work progressed on such a document, the issue as to whether the Region should be setting a security policy became apparent. After some deliberation it was agreed that the WG should check on the outcomes of the ANC meeting as a number of working papers on security were being presented and that this may have an impact on the work being considered by the ATNTTF WG. It was also decided to raise this issue at the ACP Working Group N meeting to determine who should establish the frame work of the policy (global or regional level). It was agreed that relevant working papers would be prepared and submitted to the ATNTTF/6 meeting for further discussion on the matter.

6. ACTION BY THE MEETING

6.1 Delegates of the Task Force are invited to review the work performed by the ATNTTF Working Group and to comment on the various documents and working papers that are to be presented during the ATNTTF/6 Meeting.

6.2 States and Organisations from the Asia Pacific region who would like to volunteer to participate in the work of the ATNTTF Working Group are invited to nominate at this time.

6.3 Existing members of the ATNTTF Working Group are also requested to confirm their continuation to participate at this time:

- Australia;
- Fiji;
- Hong Kong China;
- Japan;
- Singapore;
- Thailand;
- United States of America; and
- SITA.

Abbreviated Version of the Minutes of the ATNTTF Ad Hoc Working Group Van Nuys (8th) Meeting

1. The ICAO Asia Pacific ATNTTF Ad Hoc Working Group (WG) convened its eighth meeting in Van Nuys, CA, USA from the 7th to the 9th of October 2003. The objective of the meeting was to discuss and finalise the following documents:

- Technical Document on Use of Directory Services.
- MTA Routing Policy Document
- Regional System Management Transition Guidance Document.
- ATN Performance Document
- ATN Systems Integrity

The meeting also started work to investigate a number of other issues assigned to it from the ATNTTF/5 meeting.

2. 13 participants attended the meeting from Australia, Fiji, Japan, Thailand, and the United States. The meeting was hosted by the FAA at ITT Industries Gilfillan facilities.

3. **Agenda Item 1 – Review of Tasks/Activities of the ATNTTF Ad Hoc Working Group.** Craig Head presented a summary of the tasks and activities that are still outstanding to be completed by the ATNTTF Ad Hoc Working Group and a number of new tasks and activities that the group are required to report on.

Henry Lam presented a first draft of the ATN Router Description document. During the deliberations on the document it was requested that the document not include material that is referenced in other documents to assist in reducing the maintenance on the document. An electronic copy of the document will be sent to all members so that they can provide comments back to Henry Lam. Final review of the document is to be ready by the next meeting of the working group.

Henry Lam also presented a draft outline of the AMHS Description document. The first draft of the document to be ready for review by the working group's next meeting.

4. **Agenda Item 2 – Discussions/Review on the Technical Document on Use of Directory Services.** Jim Moulton gave a status update on the Directory Services document. A number of sections are still required to be completed (Section 9 and 10). The meeting agreed that Section 10 shall discuss the directory strategy and will include the requirement for the development of Interface Control Documents and when States will be ready to implement the directory service. The meeting considered that the first major use for Directory Services in the Asia/Pacific region would be address lookup for AMHS. It was considered that this might be used to promote a transition strategy for the wider adoption of Directory Services in the region. The document is to be ready for final review at the next meeting of the working group.

5. **Agenda Item 3 – Discussions/Review on MTA Routing Policy document.** Jim Moulton advised the group that there are still concerns in how the MTA routing policy should be applied. It was agreed that the document should be put on hold and that a transition paper should be developed to work through the routing issues associated with AFTN and AMHS. Morio Miura pointed out that the AFTN and AMHS networks are not independent but must operate together during the transition period, and the priority must be to ensure a smooth transition. To ensure this, Japan considers that it will be necessary to base the transitional AMHS routing on the existing AFTN routing so that the impact on messaging will be minimal as AFTN trunks are replaced with AMHS links. It was considered desirable that once agreed, the transition approach should be disseminated beyond the Asia/Pacific region to ensure harmonisation. It was suggested that this may require a small

working group of States that are planning to implement AMHS to convene a meeting to work through the routing impact issues.

6. **Agenda Item 4 – Discussions/Review status on the Regional System Management Transition Guidance Document.** Robert Hallman presented the latest developments on the Regional System Management Guidance document. Outstanding work requiring completion included further work on sections 5.3, 7.1 to 7.5 and to reference appendices throughout the document. The meeting considered the necessity for the formation of an “ATN regional network performance advisory group” to co-ordinate network management issues and to ensure network integrity once the regional ATN ground network is established. The document will contain a recommendation to this effect. The document is to be ready for final review at the next meeting of the working group.

7. **Agenda Item 6 – Discussion/Review on ATN Performance.** Tetsuo Mizoguchi presented the latest changes to the ATN Performance document. The meeting recognised that OPLINKP discussions on RCP are currently concentrated on air/ground applications and that OPLINKP is unlikely to provide suitable material on which to base regional ground-ground performance requirements for the foreseeable future. The meeting discussed various issues on what performance should be applied to AMHS and agreed that given the lack of end-to-end performance requirements even for AFTN, performance should be related to the MTA and network segments and not the overall service. It was agreed that members of the working group assist Tetsuo by providing various metrics that could be used in the document. It was also agreed that the performance document should be generic in nature, and that specific recommendations should be included in the router and AMHS description documents.

8. **Agenda Item 5 – Discussions/Review on the Asia/Pacific ATN IDRP Routing Policy Document.** Tom McParland recommended a number of minor changes to the Asia/Pacific ATN IDRP Routing Policy document. The proposed changes included adding an appendix to the document that illustrates the ground/ground routing policy in response to a task from the ATNTTF WG/7 meeting, and to add a preliminary set of recommendations for air/ground routing to section 3.2.1 of the document. It was also noted that the aircraft NSAP address assignments will need to be considered and that the assignment work has yet to be started by the relevant authority. Concerns were also raised that the ground/ground IDRP routing policy should be separated from the air/ground IDRP routing policy, given the relative lack of maturity of the latter. The meeting considered whether this should best be managed by the development of two documents or contained in the one document. It was agreed that one document should be used and that the relevant topics be separated into two sections, text inserted to make it clear that air/ground policy statements are currently of a preliminary nature.

9. **Agenda Item 7 – Discussions/Review on the ATN Systems Integrity.** Tom McParland provided a briefing on the status of the ATN Systems Integrity document. The issue on whether the Region should be setting a security policy was discussed. After some deliberations it was agreed that the working group should check on the outcomes of the ANC meeting in Montreal as a number of working papers on security were being presented and that this may have an implication on the work being considered by the working group. It was also decided that TP will raise the issue in the relevant security working group N of the ACP to determine who should establish the framework of the policy. It was agreed to suspend work in the formulation of systems integrity policy until direction at higher ICAO levels becomes clearer. It was requested that Tom investigate what security issues were raised at the ANC and whether this may assist the working group in proceeding with the development of a security policy. The question will also be raised at the next Working Group N in November 2003.

10. **Agenda Item 8 – Discussions/Review on the commencement of the Asia/Pacific Regional ICD for AIDC.** Chanyut Phrukkumwong presented the first draft of the Asia/Pacific Regional ICD for AIDC. The document contained an outline on the various parameters to be used and some

recommended parameter values. The meeting was reminded that the AIDC Review Task Force had stated that the current message sets as contained in the AFTN ICD for AIDC version 2.0 should be supported during the transition period. Chanyut is to continue with the development of the document and to check on what message sets are currently described in version 2 of the AFTN version of the AIDC ICD to ensure that these message sets are covered off in the relevant messages sets described by the ATN AIDC SARPS.

11. **Agenda Item 9 – Any other business.**

Review of CNS-1C Table

The meeting discussed the format of the CNS-1C table as requested by the ATNTTF/5 meeting and agreed that the table should be renamed the AMHS Implementation Plan. It was agreed to remove the correspondent column and rename the Service Type to Facility Type. Craig Head was tasked to make the necessary modifications to the table and to present the table at the working group's next meeting.

X.25 Study

The meeting discussed the issues associated with the viability of X.25 being available in the Asia Pacific region. It was determined that as the Asia Pacific ATN will be mainly based on a private X.25 network using dedicated point-to-point circuits rather than X.25 packet switched networks, it was important that the X.25 interfaces used by applications and ATN routers should be considered. The meeting therefore agreed that it should concentrate on the X.25 interfaces being available instead of on X.25 switches. A number of members of the working group advised that they have received information from their suppliers of such interfaces that it would appear that there should be no major concern over the next five years. Craig Head agreed to prepare a report on the subject matter and asked members who are involved working with X.25 interface suppliers to provide what ever information they can so that the report can be prepared.

Future Work - Development of an AMHS Naming Registration Form

Jim Moulton was tasked to prepare a table similar to what was developed for the NSAP Registration Form for review by the working group at its next meeting.

Future Work - Review and Development of AFTN and AMHS Operating Procedures

Robert Hallman was tasked to prepare an outline of the changes to AFTN and AMHS operating procedures that will need to be considered to be used in the Asia Pacific region. Input from other States who are implementing AMHS should be sent to Robert for consideration.

AMHS Routing Impact

The meeting discussed the issue raised by Hong Kong China in the ATNTTF/5 meeting about the need to provide a connection between Hong Kong and the USA to assist in a smooth transition for the implementation of the ATN in the region. The meeting discussed the issue at length and agreed that when additional links are added, there is a tremendous impact to the AFTN routing tables that could affect States beyond those directly connected to such links and this could discourage AMHS/ATN transition. It was decided that the USA should prepare a response on the impact if the Kong Hong – USA link is added and what criteria will need to be reviewed before proceeding.

12. The meeting agreed that its next meeting would be held during the ACP WG N meeting scheduled between the 12th and 21st of November 2003 in Bangkok. A tentative date of the 17th of November was suggested. Aerothai was requested by the meeting to investigate if a meeting room could be made available for its next meeting.

13. The meeting closed at 2.30 p.m. on the 9th of October 2003.

**Abbreviated Version of the Minutes of the ATNTTF Ad Hoc Working Group Bangkok (9th)
Meeting**

1. The ICAO Asia Pacific ATNTTF Ad Hoc Working Group (WG) convened its ninth meeting in Bangkok, Thailand from the 17th to the 18th of November 2003. Due to other ACP WGN02 meetings occurring at the same time and to allow members to attend various sessions of the ACP WGN, the Ad Hoc Working Group held a morning session on the 17th and an afternoon session on the 18th. The objective of the meeting was to discuss and finalise various technical documents and papers as outlined in the agenda that will be presented to the ATNTTF/6 meeting in Bali.
2. 15 participants attended the meeting from Australia, Hong Kong China, Japan, Thailand, and the United States. The meeting was hosted by Aerothai at their Head Office premises in Bangkok.
3. **Agenda Item 1 – Review the final draft of the Reference Material for an ATN Router Description.** Henry Lam briefed the meeting on the revised document of the ATN Router Description. The router description was modified to incorporate the comments from the previous ATNTTF WG/8 meeting. Several comments emerged, including referencing APRLs to the ATN Router ICD. During the discussions on performance parameters, it was felt that generic guidelines should be used such as specifying a range of values instead of providing actual values that could mislead the reader in thinking that these are the only values that should be considered. Clarification was also to be added to the network management requirements, so that it would not be perceived that CMIP would be a requirement. A security section should also be added in general terms that should reference the policy document.
4. **Agenda Item 2 – Review the first draft of the Reference Material for an AMHS Description.** Henry Lam provided an update on the AMHS Description document. Similar comments were made that were applicable from the ATN Router Description. Again it was felt that generic guidelines should be used when specifying the performance of the AMHS rather than using actual values that could mislead the reader.
5. **Agenda Item 3 - Review the final draft of the Technical Document on Use of Directory Services.** Craig Head informed the meeting that AMHS address propagation was discussed by ACP WGN SGN3, and to make this manageable, ACP WGN SGN3 are now looking at putting in ATN Directory Services with AMHS as an initial profile on a global basis. As Jim Moulton was unable to attend the meeting the Directory Services document could not be reviewed. However it was noted that in the absence of an update on the document that the document editor would be informed to have the document ready by February and that it should be released as a version by mid-January for review electronically by the working group. The meeting also agreed that the document should focus onto the actual use of Directory for AMHS address lookup, rather than tutorial information as it is at present.
6. **Agenda Item 6 - Review the final draft of version 2 of the Asia/Pacific ATN IDRP Routing Policy Document.** Tom McParland presented the revised IDRP Routing Policy document with amendments as agreed from the last meeting. The document will be presented as version 2 to the ATNTTF/6 meeting.
7. **Agenda Item 5 – Review the final draft of the Regional System Management Transition Guidance Document.** Robert Hallman presented the Regional System Management Transition Guidance document to the meeting. The meeting decided that the recommendation to create an ATN performance advisory group should be highlighted in the presentation to the ATNTTF/6 meeting.

It was also noted that sections 7.1 to 7.5 will be changed to bullet points. Tom McParland suggested that the “MoA” contained in Appendix C of the document should be the focus of the document, since it is the most useful information. He felt that the other supporting information should be split into other documents in the short term. At the end of discussion it was decided by the meeting to leave this decision to Robert after further discussions with Tom on the way the document could be restructured.

8. **Action Item 7 - Discussion/Review of the ATN Performance Document.** Tetsuo Mizoguchi presented the latest modifications to the ATN Performance Document. He indicated that he had obtained the permission of RTCA to reproduce a limited quantity of their material in the document, with an accompanying copypine. The document has been amended based on the discussion at the last working group meeting.

9. **Agenda Item 8 – Discussions/Review on ATN Systems Integrity.** Tom McParland reviewed the outcome of the ACP WG N meeting. Tom had presented a draft ATN System Integrity policy, based on the draft policy developed by the ATNTTF working group, to SGN4. SGN4 decided to forward this to WGN, and recommended to the panel secretary to co-ordinate with other ICAO groups as appropriate. A general high-level policy needs to be formulated as to what should be done by each State, with a designated approval agency established with authorisation power. This has yet to be discussed by WGN. It was recommended that the ATNTTF working group should suspend further development at present, pending seeing what ICAO does. A working paper should be drafted to report the developments at WGN02 to the ATNTTF/6 meeting.

10. **Agenda Item 10 - Review of CNS-1C Table.** The working group reviewed the CNS-1C table that had been revised at the last working group meeting. Some further minor amendments were made. The table will be presented to the ATNTTF/6 meeting for approval.

11. **Agenda Item 9 - Status update on the Asia/Pacific Regional ICD for AIDC.** Chanyut Phrukkumwong indicated that no further progress was made on the document since the last working group meeting. He indicated that the ICD is expected to be released in January 2004. It was agreed that the ICD should include the Asia/Pacific AIDC over AFTN requirements. The target date for this deliverable is 2005, and the meeting decided that given other ICAO forum activities relating to AIDC at present, it would be prudent not to submit this deliverable too early but to continue to develop the document while monitoring these other activities. A status paper will be presented to the ATNTTF/6.

12. **Agenda Item 11 – Review of X.25 Study.** The meeting reviewed a working paper on the progress of the X.25 study up till now. It was decided to gather further information and to present a revised working paper to the ATNTTF/6 meeting.

13. **Agenda Item 12 - Review Development Work on an AMHS Naming Registration Form.** Postpone due to the absence of Jim Moulton. An interim or final document will be presented at ATNTTF/6 meeting.

14. **Agenda Item 4 – Discussions/Review of the MTA Routing Policy Document.** The meeting reviewed the state of the routeing policy document. It had been decided to suspend further development on the MTA Routing Policy document until transitional issues had been addressed. It was suggested that a smaller group of current or near future AMHS operators should meet to share information and to sort out issues, possibly co-ordinating on the timing during the ATNTTF/6 meeting.

15. **Agenda Item 14 – Discussions on AMHS Routing Impact.** Chi-Lam Leung presented a working paper entitled “Proposed new ATN Link between the ASIA and NAM Regions”. This was raised in response to WP20 prepared by JCAB at the ATNTTF/5 meeting to deal with the situation when an ATN link failure occurs while Hong Kong China, Japan and the United States are still connected in a linear ATN topology, with only one ATN path between Asia and the United States.

Hong Kong China therefore proposed that the US–Hong Kong China circuit be established to mitigate the effects of ATN link failure during the transition phase until alternate connectivity can be established between Hong Kong China and the United States. The link should be established as early as possible to gain experience and to refine the routing policy. Regarding the impact to AFTN routing tables, the study by Hong Kong China’s WP revealed that there is no impact to the AFTN network operations. However, there are minor routing changes to be carried out by Japan, Hong Kong China and Salt Lake City when the link is established.

Hoang Tran stated that Japan has requested permanent disconnection of the AFTN connection between Japan and the US in September 2004. If there is an AMHS failure after that, the FAA has concerns about the loading on the AFTN network that would result if alternate AFTN routing were used as a contingency measure.

It was noted that in principle, where states have not met their obligations or are not in a position to meet their obligations, then other states can make temporary provision, even if it deviates from regional planning. It was agreed that given the arguments presented and with the current lack of alternate ATN path between Asia and the United States, there would be no problem with implementing the proposed HK–US link during the transitional period assuming that appropriate arrangements had been agreed to between the various parties. However, the issue was whether this circuit would be temporary or permanent, and it was agreed that this should be reviewed.

It was concluded that the working group will recommend at ATNTTF/6 that the link be implemented on a temporary basis to increase redundancy and to mitigate the impact of ATN link failures on the AFTN, and the need for the circuit would be subsequently be reviewed based on the progress of ATN implementation in the region. It would also allow those three states to gain some operational experience. Japan and the US should meanwhile carry out their own studies on the impact of the circuit, and report.

During the ATNTTF/6 meeting, it was proposed to poll states to report on their AMHS implementation status.

Mark Brown presented a working paper “AMHS Transition Issues”, which summarised a study by Japan. This proposed that in the interim period AMHS routeing be based on AFTN to avoid impact to the existing AFTN network, and proposed either “hop-by-hop” or “direct MTA-to-MTA” routeing based on the AFTN routeing tables during the transitional period, and highlighted some of the differences between these methods.

The working group appreciated the paper, and considered it to be a good paper to present to ATNTTF/6.

16. **Agenda Item 13 – Review Development Work on AFTN/AMHS Operating Procedures.** Robert Hallman presented the status of a document on AFTN/AMHS operating procedures, which is currently in an outline format.

It was acknowledged that ACP is considering working on global AMHS issues, and these could include global procedures, but these could take considerable time to develop. It was therefore decided that in the interim this document should focus on interim operating procedures that might be adopted by Asia/Pacific states until global procedures are developed (e.g. contingency procedures in the case of MTA failures etc.). The document should also give the salient points of procedures that all operators should adopt based on the Annexe 10, ATN SARPs, CAMAL etc., and to capture the experience of the early transitioning states, but should over-ride Annexe 10 where necessary.

The meeting debated how to implement this and drive it. A concern was voiced that the global standards developed by ACP WGN might be a European-based standard that would be applied globally regardless of its suitability for other regions. It was therefore felt that the Asia/Pacific region should be more pro-active in developing and promoting policy etc. to ACP WGN, in order to have an influence at the global level.

The WG decided that the paper be presented as a discussion paper at the ATNTTF/6 meeting, and then if there is no feedback, to continue to develop it as far as a first draft, since trial and operational experiences will have to be fed in.

17. **Agenda Item 15 – Any Other Business.** Due to time considerations of the meeting, the meeting did not discuss any other business although it was noted that the chairman had planned to discuss with the working group the agenda of the next ATNTTF/6 meeting and a tentative agenda for the next ATN Seminar that was scheduled for early February 2004. These matters will be discussed with various members outside of the meeting.

18. For information to members of the ATNTTF Ad Hoc Working Group that a one day meeting of the group may be possible on Monday 3rd of February 2004 prior to the ATN Seminar. The Chairman will keep members advised if the meeting will take place closer to the time of the ATN Seminar.

19. The meeting closed at 4.30 p.m. on the 18th of November 2003.

Abbreviated Version of the Minutes of the ATNTTF Ad Hoc Working Group Chiang Mai (10th) Meeting

1. The 10th Meeting of the Asia Pacific ATNTTF Ad Hoc Working Group (WG) Chiang Mai, Thailand, 2 February 2004. Participants met at the AeroThai Air Traffic Control Facility in Chiang Mai. 19 individuals attended the meeting with participants from Hong Kong China, Japan, Thailand, Singapore, Fiji, and the United States. The meeting opened at 9:00 AM on February 2, 2004.
2. The work group appreciates and acknowledges AeroThai for their support in providing meeting accommodation, transportation and lunch for the working group. Thanks are extended to Mr. Somnuk Rongthong and his staff for the excellent facilities and administrative support.
3. Robert Hallman of the United States acted as chairman for the group in the absence of Craig Head of Australia. The group missed Craig and his absence impacted the continuity of the group, as did the absence of all those unable to attend.
4. The provisional agenda was reviewed, amended and accepted by the work group. The group adopted and approved a working agenda. Several papers identified in the provisional agenda were not discussed due to the absence of some proposed presenters. The working agenda is provided as attachment 2 to these minutes. All papers provided to the chairman in electronic form are attached to the minutes in a ZIP file.
5. **Agenda Item 1 - Review Working Paper, seminar presentation and final draft of the Reference Material for an ATN Router Description.** (Mark Brown – Henry Lam).

The working group carried out a detailed review of the draft ATN Router Description document.

System management guidelines were amended to clarify that insofar as there is no current APAC requirement for the electronic sharing of network management information across domains, the network management agent employed by ATN IS and ES is a local matter and so support for CMIP is not mandatory. It was also suggested that support of the CLNP Echo function be recommended to support network diagnostics.

Additional material will also be added to the section on performance, specifically on throughput and delay.

The working group debated whether to retain or delete certain APRLs in the draft ATN Router Description. To improve ATN documentation tree maintainability, it was decided to remove those APRLs that also appear in the router Interface Control Document (ICD) and replace them with references to that document, and also to remove APRLs that simply duplicate information in the standards documents.

The workgroup advocates that the ATN router ICD be updated with formal APRL for ES-IS to clarify items that may be optional which the Doc 9705 or ISO/IEC profiles specify as mandatory, while avoiding being unnecessarily prescriptive.

It was acknowledged that BIS-BIS communications will support other sub-networks other than X.25 in the future, and that the working group should monitor ATN ground network development and update the ATN router ICD and reference material as appropriate. The document editor will collate amendments to the draft Router Description.

6. Agenda Item 2 - Review working paper, presentation and final draft of the Reference Material for an Air Traffic Services (ATS) Message Handling Service (ATSMHS) (Mark Brown – Henry Lam)

The working group reviewed the AMHS description. It was agreed to align sections of this document that have commonality with the ATN Router Description.

William Ching presented Hong Kong, China's comments, touching on transition issues such as conversion between XF and CF addressing. It was agreed to amend the document to include address conversion and routing discussions at a later date, when APAC guidelines become clearer.

Henry Lam to review ATN Router Description and AMHS Description to see that "Performance Recommendations" agree where commonality applies. Additionally text will be added for Echo (ping) functions.

Henry Lam to collate document amendments and produce the final AMHS Description document for submission to APANPIRG at the ATNTTF/6 meeting. The final version of the document will be circulated to the working group by electronic mail for final review before being presented to the next task force meeting for approval.

7. Agenda Item 3 - Review Working Paper, presentation and final draft of the Regional System Management Transition Guidance Document. (Robert Hallman)

Robert Hallman presented the latest version of the System Management Transition Guidelines.

Tom McParland suggested some changes in the documentation tree to factor the material in the System Management Transition Guideline into Regional System Integrity Policy and Regional System Management guidelines. In Tom's proposal the working paper prepared by Robert Hallman would be amended and separated into sub-document under Regional System Management Policy and System Management Operational Procedures (Including sample agreements) The working group agreed that the proposed documentation tree changes had merit, but to submit the document to APANPIRG 6 in its present form at ATNTTF/6 as a completed deliverable of the working group.

The meeting briefly discussed certification of ATN systems on a regional basis for connection to the ATN backbone network. Li Peng commented that while some form of third-party certification would be ideal, it might not be practical, and at present approvals are carried out by states. Good checklists are the key to facilitating approval, and may be drafted and incorporated into bi-lateral agreements.

Documentation is contained in ZIP file attachment with the following file names:

DRAFT system management policy.doc
Potential future changes to Documentation Tree.doc
ATN (chg-ver) Asia Pacific Sys Mgt ver.....doc

8. Agenda Item 4 - Review Working Paper and final draft of version 2 of the Asia/Pacific ATN IDRP Routing Policy Document.

Tom McParland presented the final draft version of the document to the working group. The document was previously presented in the November group meeting in Bangkok. The document was approved and will go forward to ATNTTF/6 for approval and inclusion in the ATN regional transition documentation.

9. Agenda Item 5 - Review Working Paper and final draft of the ATN Performance Document. (Prepared by Tetsuo Mizoguchi with input from Henry Lam and Tom McParland)

Henry Lam presented the document to the working group. The group recommended that the document be thoroughly reviewed to see that ATN performance recommendations are in line with router performance guidelines, and submitted to the Task Force at ATNTTF/6.

Tom McParland presented a draft System Management policy. Tom suggested that in the long term some performance issues might be brought under system integrity and system management to align with ISO standard system performance categories. The meeting noted these proposals, and it was decided to discuss them at a future working group meeting.

10. Agenda Item 6 - Review Working Paper on status of ATN Systems Integrity documents

Tom McParland presented the latest documentation on Regional System Integrity Policy, which included sub-elements of a Verification Checklist and Sample Authorization. Tom had also presented a derivative of this document to ACP WGN/02 SGN4 to try to encourage ACP to look at system integrity. Tom reported on related activities within ICAO: that there have been a number of papers developed within ICAO and the ANC that address some of the system integrity issues being explored by the ATNTTF WG and are looking at establishing a policy for verification and authorization.

KP Rimal and Li Peng expressed some concern on the status of deliverables, commenting that the 2005 deadline for ATN implementation is close, so documentation needs to be approved as a matter of priority. It was clarified that the document is completed and will be submitted to ATNTTF/6 on schedule. As a way forward Tom suggested that the working group continue to progress work on draft documents, with feedback from ICAO to be incorporated as it is developed.

The discussion on proposed changes to the document and documentation tree continued under this agenda item. KP expressed some concern that changes at this date may be hard to accommodate. The group felt that the changes could be accomplished.

The meeting agreed for Tom to present a paper to ATNTTF/6 to propose amending the document tree for inclusion of Regional System Integrity Policy, with Verification Checklist and Sample Authorization, and Regional System Management Policy with System Management Procedures including sample agreement and System Management Technical Provisions.

11. Agenda Item 7 - Review update on the Asia/Pacific Regional ICD for AIDC. (Document being prepared by Chanyut Phrukkumwong)

Chanyut Phrukkumwong presented the latest version of the document to the group. All group members are asked to review the document and suggest editorial changes. It would not be prudent to submit the document to early pending finalization of associated documents. A status paper will be presented to Task Force during the April ATNTTF/6 meeting in Bali.

12. Agenda Item 8 - Review Development Work on AFTN/AMHS Operating Procedures. (Prepared by Robert Hallman).

Robert Hallman presented a first draft version of the document. KP suggested editing the document and rewording “business area” language to indicate “state” or “authority.” This document would fall under Regional System Management Policy in the new document tree.

13. Agenda Item 9 - Review WP on AMHS Routing Impact

(Chi-Lam Leung). Under the same agenda item, Mark Brown presented a Japan working paper entitled "Review of Working Paper by Hong Kong, China on AMHS Routing and ATN link" in response to an action item from the ATNTTF WG/9 Bangkok meeting. While the action item had been specifically to provide feedback to Hong Kong, China on the impact of a proposed US-Hong Kong temporary ATN link, Japan had felt that this raised general issues regarding, for example, regional network planning that merited further discussion at the working group level.

William Ching presented a working paper outlining identified problems associated with AMHS routing. He highlighted that to backup AMHS operations using AFTN was not a good solution in the migration towards ATN/AMHS because of the service downgrade and the strenuous effort required by other states apart from Japan. The benefit of having additional ATN link between those states who first implemented AMHS was elaborated and it was also confirmed that the new link would have no impact on existing AFTN routing.

Due to time constraints and the absence of some key persons, it was concluded that the present working group meeting could not address these issues in detail. As suggested at the ATNTTF WG/9 Bangkok meeting, it was proposed that a small sub-group of early AMHS adopting states be formed to discuss the issues and to provide further clarity. Members from Japan, the US and Hong Kong China will comprise the group. Henry Lam was initially nominated to represent the US, William Ching to represent Hong Kong, China. Japan will name a participant at a later date.

Agenda Item 10 - Review of Regional ATN Planning Documents presented by Li Peng and K.P. Rimal ICAO Bangkok Office.

KP Rimal Li Peng presented and the group reviewed the Regional Planning documents. It was decided to reference Edition 3 of Doc 9705 in the documents and add text addressing PMRD and Domain registration. MF address scheme was adopted.

14. Other Business:

KP Rimal recommended that the Ad Hoc Working Group be identified in the future simply as the ATNTTF Working Group.

It is recommended that the group reconvene again during or prior to the ATNTTF/6 meeting in Bali, April 26 through 30.

15. The meeting adjourned at 4:00 PM on February 2, 2004

Note that all documents required for submission to the ATNTTF meeting in Bali, April 26 through 30 should be submitted to the chairman (Craig Head) by April 9, 2004 for review by the group prior to the Bali Meeting.
