International Civil Aviation Organization

Ninth Meeting of the Aeronautical Communication Services Implementation Coordination Group (ACSICG/9)

Video Tele-Conference, 19 – 21 April 2022

Agenda Item 4: Review and update ATN Document Tree to include IPS service

ICAO ATN/AMHS GUIDANCE DOCUMENT TREE

(Presented by the Secretariat)

SUMMARY

This paper presents the ICAO ATN/AMHS Guidance Document Tree and proposes to add CRV reference documents into the ATN Guidance Document tree for consideration by the meeting. The meeting is also requested to review the tree and suggest modifications into the content and layout of the tree, if required.

1. INTRODUCTION

1.1 The Fourth Meeting of the ATN Transition Task Force (ATNT TF/4) was held in Mumbai, India from *8 to 12 April 2002*. The meeting reviewed a new document called **the ATN Documentation Tree** that provided an index and hierarchy on relevant ATN documents that are available to assist States in their ATN planning and implementation programmes. The reviewed ATN documentation tree is provided as **Appendix A** to this paper. The meeting agreed that the modifications to the document are required to ensure that the document contains the latest and accurate reference information to assist States in the Asia Pacific Region with their development and implementation plans for the ATN and further adopted by APANPIRG/13 in the following Conclusion:

Conclusion 13/14- ATN Documentation Tree

That,

a) the ATN Technical Document be published in a loose-leaf form to include future amendments to the Document; and
b) the ATN Documentation Tree provided in Appendix A be adopted and included in the ATN Planning Document.

1.2 The Seventh Meeting of ATN Transition Task Force (ATNT TF/7) of the ASIA/PAC Air Navigation Planning and Implementation Regional Group (APANPIRG) was held in Shanghai, China from *18 to 22 April 2005*. The meeting reviewed and adopted the Reference Document for the AMHS Description and further updated the ATN Documentation Tree which is provided as **Appendix B** to this paper.

1.3 The Sixth Meeting of the Aeronautical Telecommunication Network (ATN) Implementation Co-ordination Group (ATNICG/6) of APANPIRG was held in Republic of Korea, from *16 to 20 May 2011*. The meeting reviewed the proposed updates and recommended actions for each document by USA to the ATN Documentation Tree by WP/13. The appendix to WP/13 presented a matrix as a summary of each of the documents on the ICAO Asia and Pacific Office under ATN Planning Documents and makes recommended actions for each document which was adopted by the meeting. The presented matrix is provided in **Appendix C** to this paper. The meeting was informed that the consequential updates on the Documentation Tree had been reflected on the following ICAO APAC website: ICAO Regional Office ATN Document Tree. The meeting agreed that **the document should be kept and then updated depending upon the developments**.

1.4 As the ICAO ATN/AHMS Guidance Document Tree uploaded on ICAO APAC Website is not updated for few years and the portal is being used by member states for taking reference of necessary documents related to ATN Implementation in APAC Region, this paper proposes to update ICAO ATN/AMHS Guidance Document Tree. The meeting is also requested to deliberate the procedure for potential addition of CRV reference documents into the tree at suitable location.

2. DISCUSSION

2.1 CRV OG is working on continuously to provide necessary reference documentations for promoting and supporting implementation of CRV in APAC region. The reference documentations include as on today, **CRV operations manual**, **CRV Implementation Plan**, **Voice over Internet Protocol (VoIP) and Analog Voice Interface Control Document for CRV**, and **CRV Landing Page** published on ICAO APAC Website.

2.2 The CRV OG Operations Manual is intended to provide an easy reference for interested parties, a consolidation of material particularly of a procedural nature, about the work of the CRV OG and its contributory bodies. It contains the Terms of Reference of the CRV OG established by APANPIRG Decision 27/34, the working arrangements, and internal instructions developed by the Group for the practical application of its Terms of Reference.

2.3 The CRV Implementation Plan provides guidance for all States/Administrations on the operation requirements for the Common aeRonautical Virtual Private Network (CRV) used in Asia/ Pacific (APAC) Region.

2.4 Voice over Internet Protocol (VoIP) and Analog Voice Interface Control Document (ICD) for the Asia-Pacific Common Regional Virtual Private Network (CRV) defines the interface between the Service Provider and each of the States/Administrations of the VoIP service and Analog Voice service for Ground to Ground voice communications and forms part of the Specification for the CRV which ensure the compatibility between system, sub-systems and components.

2.5 The CRV Landing Page provides an online access on ICAO APAC webpage to the information and directions required for the Request Fulfilment Process and procedures to join, leave or make changes the CRV network.

2.6 The current ATN/AMHS Documentation Tree published on ICAO APAC Website is not updated for few years. Therefore, the version provided in the tree is quite old and required updates. Additionally, some documents may be required to add/delete into the tree.

2.7 Since the ATN/AMHS Documentation Tree catalogues all relevant ATN/AMHS planning and guidance material and other documents that are related to the planning and implementation

of the ATN/AHMS for the APAC Region, the CRV reference documents may be considered to be added into the ATN/AMHS Document Tree to provide integrated ATN/AMHS structure for APAC States/Administrations.

2.8 The CRV OG/9 meeting held from *25 Janaury-27 January 2022* via Video Tele-Conference (VTC) reviewed the ATN/AMHS Documentation Tree to consider if addition of CRV reference documents is required, including the document locations on the ATN/AMHS Documentation Tree and necessary modifications on the ATN/AMHS Documentation Tree structure, if any.

2.9 Mr. Hoang Tran, ACSICG Chair suggested in CRV OG/9 that ICAO APAC Regional ATN Documentation Tree should include CRV Reference documents. It was suggested that CRV operations manual may be added under Policy & Service Definition documents, Voice over Internet Protocol (VoIP) and Analog Voice Interface Control Document for CRV may be added under Interface Control Documents (ICDs) and CRV Implementation plan may be added under Implementation Documents.

2.10 The CRV OG/9 recommended that ACSICG/9 to be held from *19 April 2022 to 22 April 2022* may **create an ad-hoc group** to update the ATN/AMHS Guidance Tree.

2.11 The CRV OG/9 meeting concluded that the Member States would take some time to take reference of the ATN/AMHS Guidance Tree to review it and to provide the suggestion for modification in the ATN/AMHS Guidance Tree along with locating the position to add different CRV reference documentation. **ACTION ITEM 9-1**

2.12 The ACSICG/9 is requested to review and update the ATN/AMHS Documentation Tree and consider the recommendation of the CRV OG/9 for addition of CRV reference documents including the document locations on the ATN/AMHS Documentation tree. The meeting may also consider necessary modifications on the ATN/AMHS Documentation tree structure, if required.

2.13 As ATN/AMHS Documentation Tree published on ICAO APAC Website is complex in nature and working on modifications on the tree required expertise in ATN/AMHS related ICAO documentation, the ACSICG/9 meeting is invited to deliberate the recommendation of the CRV OG/9 to form an ad-hoc group for this purpose and create an ad-hoc group, if required.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper;

b) update the documents into ICAO ATN/AMHS Guidance Document Tree;

c) propose the location of addition of CRV reference documents; and

d) discuss any relevant matter as appropriate.

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INTERNATIONAL CIVIL AVIATION ORGANISATION

ASIA PACIFIC OFFICE

ATN DOCUMENTATION TREE

April 2002

Version 1.0

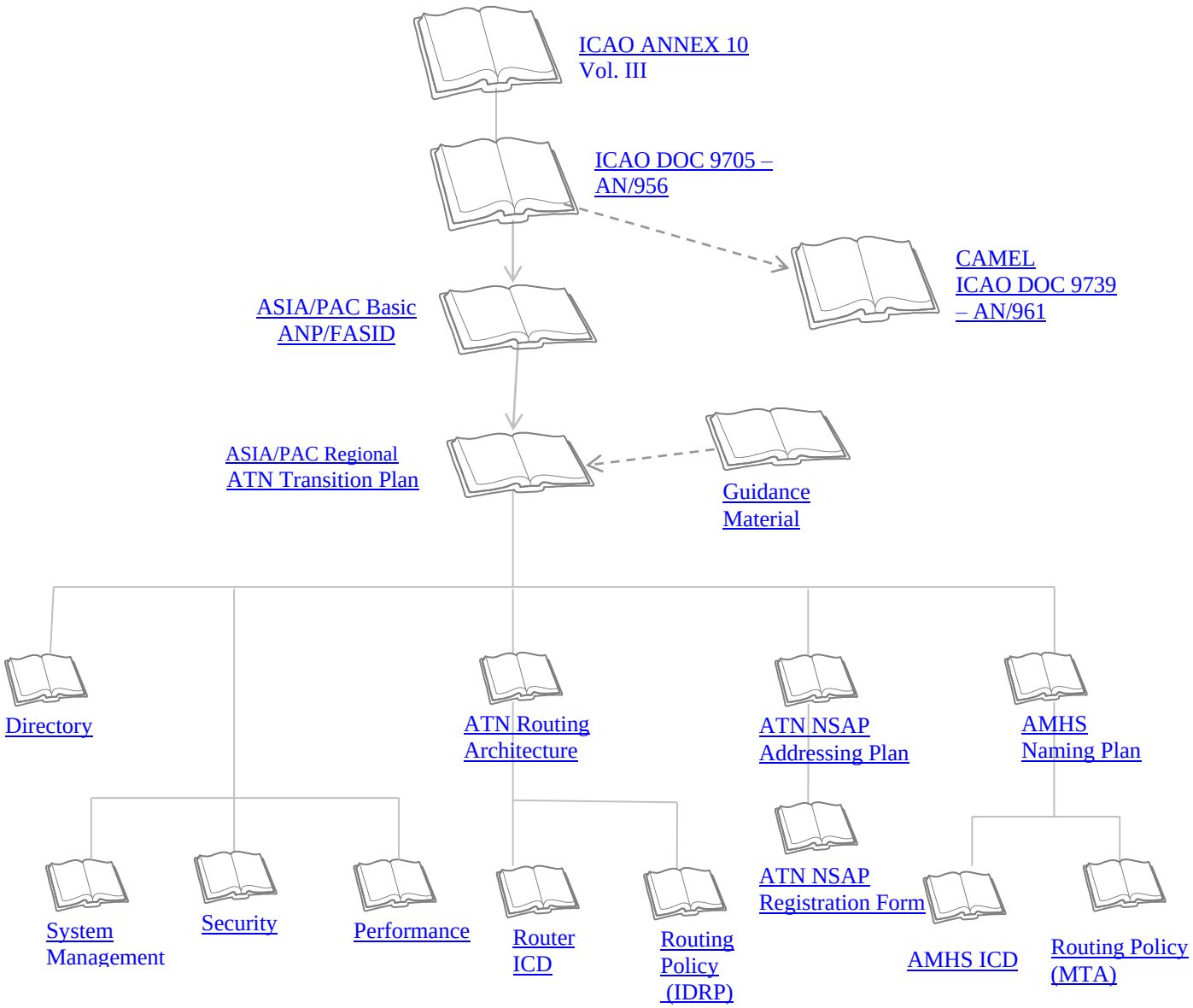
Published by the ICAO Asia and the Pacific Regional Office Bangkok

Table of Contents

1 Scope

This document has been developed to serve as index and hierarchy of all documentations associated with the ATN in the Asia Pacific Region. A hierarchical representation of the relationships between the various documents is presented in section 2 “Documentation Tree”, with associated document descriptions located in section 3 “Documentation Profiles”.

2 Documentation Tree



3 Documentation Profiles

3.1 ICAO Annex10 Vol. III

Title:

International Standards and Recommended Practices, Aeronautical Telecommunications, Annex 10 Volume III.

Latest Version: March 2001

Purpose:

This ICAO document defines the Standards and Recommended Practices (SARPs) for the Aeronautical Telecommunications Network (ATN).

Contents:

Subjects covered by the document:

- Part I – Digital Data communication Systems.
  - Chapter 1 – Definitions.
  - Chapter 3 – Aeronautical Telecommunication Network.
  - Chapter 4 – Aeronautical Mobile-Satellite Service.
  - Chapter 6 – VHF Air-Ground Digital Link (VDL).
  - Chapter 8 – AFTN.
- Part II – Voice Communication Systems.
  - Chapter 2 – Aeronautical Mobile Service.
  - Chapter 4 – Aeronautical Speech Circuits.
  - Chapter 5 – Emergency Locator Transmitter (ELT) for search and rescue.

3.2 Manual of Technical Provisions for the Aeronautical Telecommunication Network - ICAO DOC 9705 – AN/956

Title:

Manual of Technical Provisions for the Aeronautical Telecommunication Network (ATN).

Latest Version: 3rd Edition

Purpose:

This ICAO manual contains detailed technical information and serves to further elaborate on the ATN standards as defined in Chapter 3 of Annex 10, Volume III, Part I.

Contents:

Subjects covered by the document:

- Sub-Volume I – Introduction and System Level Requirements.
- Sub-Volume II – Air-Ground Applications.
- Sub-Volume III – Ground-Ground Applications.
- Sub-Volume IV – Upper Layer Communications Services (ULCS).
- Sub-Volume V – Internet Communications Services (ICS).
- Sub-Volume VI – ATN Systems Management Provisions.
- Sub-Volume VII – ATN Directory Service.
- Sub-Volume VIII – ATN Security Service.
- Sub-Volume IX – ATN Identifier Registration.

3.3 Comprehensive Aeronautical Telecommunications Network Manual (CAMEL) - ICAO DOC 9739 – AN/961

Title:

Comprehensive Aeronautical Telecommunications Network (ATN) Manual.

Latest Version: 1st Edition - 2000

Purpose:

This document provides guidance material in support of the ATN SARPS as defined in Annex 10, Vol. III and Doc. 9705.

Contents:

Subjects covered by the document:

- Components, functionality and concepts of the ATN.
- ATN Internet lower layer routing protocols.
- ATN Upper layer application protocols.
- ATN subnetworks and corresponding SNDCF's layers.
- Air-ground applications, ADS, CPDLC, CM, FIS.
- Ground-Ground applications ATSMHS, AIDC.

3.4 Routing Policy (IDRP)

To be developed.

3.5 Routing Policy (MTA)

To be developed.

3.6 Directory

To be developed.

3.7 System Management

To be developed.

3.8 Performance

To be developed.

3.9 Security

To be developed.

3.10 Router ICD

To be developed.

3.11 ATN Ground-Ground Transition Plan

Title:

ASIA/PAC ATN Transition Plan.

Latest Version: 1.0

Purpose:

This document describes the transition activities that are to be performed by States in the region for a coordinated migration from AFTN to the new ATN environment.

Contents:

Subjects covered by the document:

- Existing ground infrastructure.
- ATN End system applications.
- ATN Traffic, both ground-ground and air-ground communication paths.
- ATN routing architecture.
- ATN backbone trunks.
- Interconnection of ATN routers.
- Transition activities.

Remarks:

Subsequent to discussions stemming from the CNS/MET SG/5 meeting much of the document's contents has been included into the CNS FASID. This document will under go no further revisions.

3.12 ATN Routing Architecture

Title:

ASIA/PAC ATN Routing Architecture.

Latest Version: 1.0

Purpose:

This document presents the routing architecture for the ground-ground infrastructure to eventually replace the existing AFTN. It is intended that this architecture will also be suitable for the accommodation of the air-ground communications traffic at some later time.

Contents:

Subjects covered by the document:

- Routing Domain Fundamentals.
- Router Fundamentals.
- ASIA/Pacific regional routing architecture.
- Routing domains.
- ATN Transition.

3.13 ATN NSAP Addressing Plan

Title:

ASIA/PAC ATN Addressing Plan.

Latest Version: 1.0

Purpose:

This document presents recommendations for the assignment of ATN NSAP addresses within the region. It also defines the methods by which values are assigned to each field of the NSAP Address and specifies the assumptions upon which the addressing format has been defined.

Contents:

Subjects covered by the document:

- NSAP Address structure adopted by states of the ASIA/PAC Region.
- Recommendations for the values of each field of the NSAP address.
- Authority responsible for NSAP field assignments.

3.14 AMHS Naming Plan

Title:

ASIA/PAC AMHS Naming Plan.

Latest Version: 1.0

Purpose:

This document presents recommendations for the AMHS naming conventions to be adopted by AMHS users within the region.

Contents:

Subjects covered by the document:

- MF-Addressing scheme.
- XF-Addressing scheme.
- Conventions for use of MF-Addressing Format.
- Conventions for use of XF-Addressing Format.
- General use of X.400 O/R Addresses.

3.15 ATN NSAP Registration Form

Title:

ASIA/PAC ATN NSAP Registration Form.

Latest Version: 1.0

Purpose:

This document specifies the information that is required for registration of devices that are to connect to the ATN environment within the Region.

Contents:

Subjects covered by the document:

- Registration of NSAP Addresses for ATN Routers and ATN End-System.
- Registration of Communication Circuits for ATN Routers and ATN End-Systems.

3.16 Guidance Material for Ground Elements in ATN Transition

Title:

Guidance Material for Ground Elements in ATN Transition.

Latest Version: 2.0

Purpose:

This document contains guidance material for ATN transition planning within the ASIA/PAC region.

Contents:

Subjects covered by the document:

- ATN overview
  - Ground-ground service components.
  - Air-ground service components.
  - ATN security service.
  - ATN system management.
  - ATN directory.
- Planning Issues to be considered
  - ATM operational concept.
  - Transition planning.
  - Implementation planning.
  - Proposed regional planning activities for transition.
  - Proposed State planning activities for transition.
- Guidance material for ground based elements
  - Integration of new and existing infrastructure.
  - Message service definition, benefit and procedure in inter-domain operation.
  - Guidance for administrative domain definition.
  - Guidance for architectural design of ATN ground elements.
  - Connection for inter-domain operation and guidance material.
  - Identification of traffic type, quality of service with respect to inter-domain operation.
  - Performance issues of reliability, maintainability, and reliability with respect to inter-domain operation.
  - Transition paths and transitional procedure in inter-domain operation.
  - Cost analysis of ATN ground elements in transitional development for inter-domain operation.
  - ATN security solution.

3.17 AMHS ICD

Title:

ICD for ATS Message Handling System (AMHS) in Asia/Pacific Region

Latest Version: 1.0

Purpose:

This ICD has been developed in order to facilitate interoperability between States in the deployment of AMHS within the ASIA/PAC region.

Contents:

Subjects covered by the document:

- AMHS functions.
- Network configuration.
- Protocol specification overview.
- AMHS specifications.
- Upper layer specifications.
- Lower layer specifications.
- AHMS PICS.

3.18 Facilities and Services Implementation Document (FASID)

Title:

Facilities and Services Implementation Document.

Latest Version: To be advised.

Purpose:

This document contains elements of Part IV, CNS of the ASIA/PAC FASID.

Contents:

Subjects covered by the document:

- Table 1A, AFTN/Data Circuit Plan.
- Table 1B, ATN Router Plan.
- Table 1C, ATSMHS Routing Plan.
- Table 1D, AIDC Circuit Plan.

INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASIA AND PACIFIC OFFICE

ASIA/PAC REGIONAL AERONAUTICAL TELECOMMUNICATION NETWORK (ATN)

DOCUMENTATION TREE

Third Edition – April 2005

Issued by the ICAO Asia/Pacific Regional Office, Bangkok

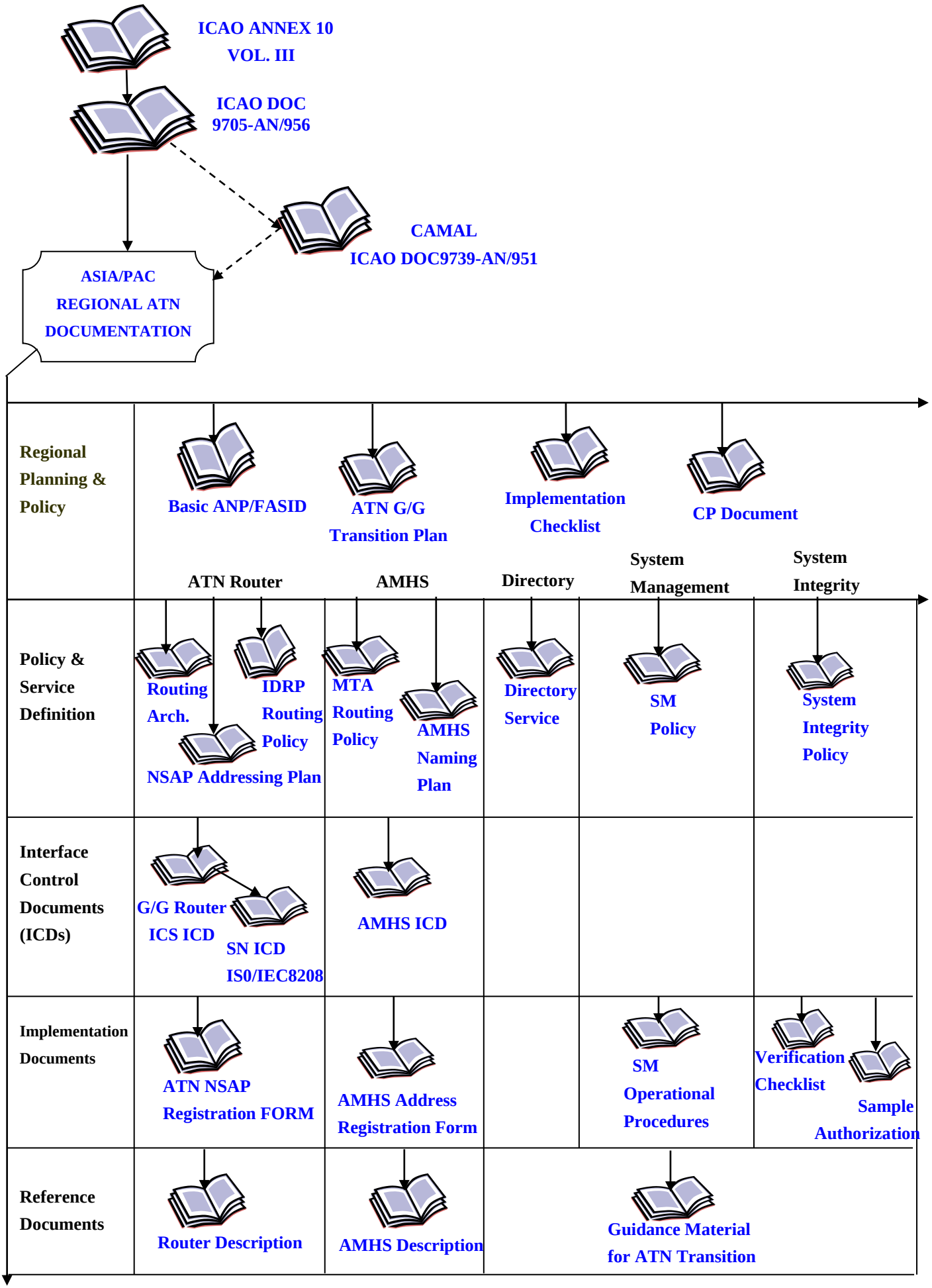
TABLE OF CONTENTS

DOCUMENTATON PROFILES

ATN DOCUMENTATION TREE

The 1st Edition was approved by APANPIRG/13 in September 2002 under Conclusion 13/14; and the 2nd Edition was adopted by APAPIRG/14 in August 2003 under Conclusion 14/13. The current Edition (3rd Edition) is being developed by ATNTTF/7.

DOCUMENTATION TREE - APRIL 2005



3. DOCUMENTATION PROFILES

3.0 ATN Documentation Tree

Title: ATN Documentation Tree

Latest Version: 3rd Edition - 2005

Purpose: This document provides index hierarchy on relevant ATN documents that are available to assist States in their ATN planning and implementation programmers.

Contents: Names of the relevant documents; Brief introduction to the purpose and contents of each document. It also provides last edition and history of the documents.

Remark: The 1st Edition of this document was developed by ATNTTF/4 in 2002 and adopted by APANPIRG/13 under Conclusion 13/14. It was further updated in 2003, 2004 and 2005 respectively to reflect those latest ATN planning and implementation related documents developed by ATN Transition Task Force.

STANDARDS AND TECHNICAL PROVISIONS

3.1 ICAO Annex10 Vol. III

Title: International Standards and Recommended Practices, Aeronautical Telecommunications, Annex 10 Volume III.

Latest Version: First Edition - 1995 and its last update in January 2004 including Amendment 79

Purpose: This ICAO document defines the Standards and Recommended Practices (SARPs) for the Aeronautical Telecommunication Network (ATN) in its Part I.

Contents: Subjects covered by the document:

- Part I – Digital Data communication Systems;
  - Chapter 1 – Definitions;
  - Chapter 3 – **Aeronautical Telecommunication Network;**
  - Chapter 4 – Aeronautical Mobile-Satellite Service;
  - Chapter 6 – VHF Air-Ground Digital Link (VDL);
  - Chapter 8 – AFTN.

- Part II – Voice Communication Systems;
  - Chapter 2 – Aeronautical Mobile Service;
  - Chapter 4 – Aeronautical Speech Circuits;
  - Chapter 5 – Emergency Locator Transmitter (ELT) for search and rescue.

3.2 Manual of Technical Provisions for the Aeronautical Telecommunication Network - ICAO DOC 9705 – AN/956

Title: Manual of Technical Provisions for the Aeronautical Telecommunication Network (ATN)

Latest Version: 3rd Edition - 2002

Purpose: This ICAO manual contains detailed technical information and serves to further elaborate on the ATN standards as defined in Chapter 3 of Annex 10, Volume III, Part I.

Contents: Subjects covered by the document:

- Sub-Volume I – Introduction and System Level Requirements;
- Sub-Volume II – Air-Ground Applications;
- Sub-Volume III – Ground-Ground Applications;
- Sub-Volume IV – Upper Layer Communications Services (ULCS);
- Sub-Volume V – Internet Communications Services (ICS);
- Sub-Volume VI – ATN Systems Management Provisions;
- Sub-Volume VII – ATN Directory Service;
- Sub-Volume VIII – ATN Security Service;
- Sub-Volume IX – ATN Identifier Registration.

3.3 Comprehensive Aeronautical Telecommunication Network Manual (CAMAL) – ICAO DOC 9739 – AN/961

Title: Comprehensive Aeronautical Telecommunication Network (ATN) Manual.

Latest Version: 2nd Edition - 2002

Purpose: This document provides guidance material in support of the ATN SARPS as defined in Annex10, Vol. III and Doc9705.

Contents: Subjects covered by the document:

- Components, functionality and concepts of the ATN;
- ATN Internet lower layer routing protocols;
- ATN Upper layer application protocols;
- ATN sub networks and corresponding SNDCF's layers;
- Air-ground applications, ADS, CPDLC, CM, FIS;
- Ground-Ground applications ATSMHS, AIDC.

PLANNING AND POLICIES

3.4 Basic Air Navigation Plan (BANP) and Facilities and Services Implementation Document (FASID) ICAO Doc9673

Title: ASIA/PAC Basic Air Navigation Plan/Facilities and Services Implementation Document.

Latest Version: 1st Edition – August 2001

Purpose: This document contains operational requirements for facilities and services as specified in Part IV, CNS of both the ASIA/PAC BANP and FASID. The regional policy and

procedures regarding implementation of ATN adopted by APANPIRG is provided in the BANP. The detailed planning and implementation information is provided in the relevant CNS tables of FASID.

Contents: Subjects covered by the document:

- Table 1A, AFTN/Circuit Plan;
- Table 1B, ATN Router Plan;
- Table 1C, ATSMHS Routing Plan;
- Table 1D, AIDC Circuit Plan.

Remark: This planning and implementation document has been amended from time to time in accordance with the established procedure. The ATN related tables were gradually introduced into this planning document and/or updated later through such amendment process. The CNS Tables 1A, 1B, 1C and 1D were updated in 2004 and adopted by APANPIRG/15. The operational requirements for using AIDC between States to be included in the Table 1D were required to be identified by States. Therefore the Table 1D was circulated to States in early 2005 for comments.

3.5 ATN Ground-Ground Transition Plan

Title: ASIA/PAC ATN Transition Plan.

Latest Version: 2nd Edition - March 2004

Purpose: This document describes the transition activities that are to be performed by States in the region for a coordinated migration from AFTN to the new ATN environment.

Contents: Subjects covered by the document:

- Existing ground infrastructure;
- ATN End system applications;
- ATN Traffic, both ground-ground and air-ground communication paths;
- ATN routing architecture;
- ATN backbone trunks;
- Interconnection of ATN routers;
- Transition activities.

Remark: This document was adopted by APANPIRG/12 with its Conclusion 12/14. Subsequent to discussions stemming from the CNS/MET SG/5 meeting in 2003, much of the document's contents has been transferred into the CNS FASID. As it is part of ASIA/PAC Regional ATN Planning Document, it was reissued as Second Edition in March 2004.

3.6 Checklist for Implementation of Ground/Ground ATN Infrastructure

Title: Checklist for Implementation of Ground/Ground ATN Network Infrastructure

Latest Version: 2nd Edition - March 2004

Purpose: The checklist indicates those **initial activities** that are to be performed by States for a coordinated migration from AFTN to the new ATN environment.

Contents: This document describes the steps of implementation which should be considered by the States.

Remark: It was adopted by ANPANPIRG/13 in 2002

3.7 Communication Performance for ATN

Title: ASIA/PAC Regional Communication Performance Document for ATN

Latest Version: Revision 4.0 - April 2005 was endorsed as first Edition by the ATNTTF/7.

Purpose: This document provides guidance on the ATN performance. Information on the definition of Required Communication Performance (RCP) defined by OPLINKP and the monitoring of ATN performance are provided. A set of performance parameters is described for planning phase. The operational environments are considerably different within the ASIA/PAC Region because of the air space complexities and traffic volume (air traffic as well as data traffic). Therefore, guidance provided in the document has to be adaptable to the environment of interest.

Contents: Subjects covered by the document:

- Background;
- Basics of Performance;
- Definition of Operational Aeronautical Telecommunication Process;
- Characterization of Aeronautical Telecommunication Performance;
- Required Operational Communication Performance: RCP;
- RCP Types;
- Understanding, Determining , Prescribing and Complying with RCP Types Performance;
- ATN; ATN Applications and ATN Communication Services
- Monitoring, ATN Performance.

Remark: The first draft of this document was reviewed in April 2002 by ATNTTF/4 and was updated in 2003 and 2004. The document was further revised in early 2005 to align with the RCP Manual being developed by OPLINKP. It was endorsed as 1st Edition by ATNTTF/7.

ATN GROUND INFRASTRUCTURE (Router and Routing)

3.8 ATN Routing Architecture

Title: ASIA/PAC ATN Routing Architecture

Latest Version: 2nd Edition - March 2004

Purpose: This document provides technical guidance on the transition to the Aeronautical Telecommunication network (ATN) for the ground-ground communication in the ASIA/PAC Region. The routing architecture is designed primarily for the ground-ground infrastructure to eventually replace the existing AFTN. It is intended that this architecture will also be suitable for the accommodation of the air-ground communications traffic in the future.

Contents: Subjects covered by the document:

- Routing Domain Fundamentals;
- Router Fundamentals;
- ASIA/PAC Regional Routing Architecture;
- Routing domains;
- ATN Transition.

Remark: This document was adopted APANPIRG/12 in 2001 for distribution to States in the ASIA/PAC and adjacent regions. This document as part of ATN Planning document was included in its 2nd Edition which was issued in March 2004.

3.9 ATN IDRP Routing Policy

Title: ASIA/PAC ATN Inter Domain Routing Policy (IDRP)

Latest Version: 2nd Edition - May 2004

Purpose: This document provides policy for ATN routers operating in the ASIA and Pacific Region in support of ATSMHS and other ATN applications. The ASIA/PAC ATN IDRP document would allow States/Organizations to have additional local routing policies. Such policies may include various local preferences or Quality of Service based routing, for example: routing based on line error rates, delay, capacity and priority.

Contents: Subjects covered by the document:

- Routing policy goals
- Policy requirements for ATN routers

Remark: This document was adopted by APANPIRG/14 in 2003 under Conclusion 14/14. It was further updated in May 2004.

3.10 ATN NSAP Addressing Plan

Title: ASIA/PAC ATN Network Service Access point (NSAP) Addressing Plan.

Latest Version: 2nd Edition - March 2004

Purpose: This document provides technical guidance and recommendations for the assignment of ATN NSAP addresses within the region. It also defines the methods by which values are assigned to each field of the NSAP Address and specifies the assumptions upon which the addressing format has been defined.

Contents: Subjects covered by the document:

- NSAP Address structure to be adopted by states of the ASIA/PAC Region;
- Recommendations for the values of each field of the NSAP address;
- Authority responsible for NSAP field assignments.

Remark: The 1st Edition of this document was adopted by APANPIRG/12 in 2001 for distribution to States in the ASIA/PAC and adjacent regions. It was reissued as part of the 2nd Edition of the Regional ATN Planning Document in March 2004.

3.11 ASIA/PAC Interface Control Document (ICD) for ATN Ground-Ground Router

Title: ASIA/PAC Interface Control Document (ICD) for Aeronautical Telecommunication Network (ATN) Ground-Ground Router.

Latest Version: 2nd Edition - April 2005

Purpose: This Interface Control Document (ICD) specifies the interface requirements for the ATN Internet Communication Service (ICS) routed and routeing protocols of the ATN G/G Boundary Intermediate Systems that form nodes of the Asia/Pacific ATN regional backbone network and/or have inter-State connectivity, to ensure interoperability between States. This ICD addresses the upper sub-layer of the network layer of the ATN G/G router using the ISO/OSI Basic Reference Model. These ICD guideline provisions comprise G/G router functional requirements associated with ATN Protocol Requirements Lists (APRLs) relevant to the ATN Internet Communication Service (ICS) routed protocol (ISO/IEC 8473-1 CLNP) and routing protocol (ISO/IEC 10747 IDRP).

Contents: Subjects covered by the document:

- ATN G/G Router Overview;
- Network Layer 3 – Connectionless Network Protocol (CLNP)
- Network Layer 3 – Inter-Domain Routing Protocol (IDRP)
- CLNP and IDRP ATN Protocol Requirements Lists (APRLs) relevant to support layer 3 interface requirements.

Remark: The First Edition of this document was adopted by APANPIRG/14 in 2003. It was further updated and endorsed by ATNTTF in April 2005 as the Second Edition.

3.11.1 G/G Router ICD for ISO/IEC 8208 Sub-Network

Title: ASIA/PAC Ground-Ground Router Interface Control Document (ICD) for ISO/IEC 8208 Sub-Network.

Latest Version: 1ST Edition - April 2005

Purpose: This Interface Control Document (ICD) provides guidelines for interconnecting ATN G/G routers between States/organizations based on ISO/IEC 8208 sub network. The guidelines are mainly for ISO/IEC 8208 sub-network connections used to

communicate between the boundaries intermediate systems that form nodes of the Asia/Pacific regional network to assure interoperability. It addresses the physical, data link and sub-network layers of the ATN G/G router ISO/IEC 8208 sub-network using the International Organization for Standardization (ISO) Information Processing Systems Open Systems Interconnection (OSI) Basic Reference Model.

Contents: Subjects covered by the document:

- ISO Layer 1 - Physical layer;
- ISO layer 2 - Data Link Layer
- ISO layer 3 - Network Layer interface requirements between G/G routers;
- Recommended interface parameters; and
- SNDCF (ISO/IEC 8473-3) ATN Protocol Requirements Lists (APRLs) relevant to support layer 1 to layer 3 interface requirements.

Remark: This ICD applies to the ISO/IEC 8208 connections over point-to-point circuit The 1st Edition of this document was endorsed by ATNTTF in April 2005.

3.12 ATN NSAP Registration Form

Title: ASIA/PAC ATN Network Service Access Point (NSAP) Address Registration Form.

Latest Version: 2nd Edition - March 2004

Purpose: This document provides the provisions and information required for registration of devices that are to connect to the ATN environment within the Region.

Contents: Subjects covered by the document:

- Registration of NSAP Addresses for ATN Routers and ATN End-System;
- Registration of Communication Circuits for ATN Routers and ATN End-Systems.

Remark: 1st Edition of this document was adopted by APANPIRG/12 in 2001. It was included in the 2nd Edition of the Regional ATN Planning Document issued in March 2004. The form when completed should be sent to ICAO Asia and Pacific Regional Office for registration.

ATN APPLICATIONS – AMHS

3.13 AMHS MTA Routing Policy

Title: ASIA/PAC Regional AMHS MTA Routing Policy.

Latest Version: 1st Edition - April 2005

Purpose: To refine the implementation planning for AMHS, this document is required for determination of the routing of AMHS messages between systems within the Region and to systems outside the Region. This document presents AMHS routing policies to be used within the ASIA/PAC Region. The development of this AMHS routing policies is based on the need of States and AMHS administrators to be able to control the flow of messages into individual AMHS systems.

Contents: Subjects covered by the document:

This document covers policy for AMHS systems to route AMHS messages between MTAs within ASIA/PAC Region both in the transitional phase and final phase of AMHS implementation. It also outlines the policy for inter-region AMHS connections between the Region and other regions. It also describes the MTA backbone sites in the Asia and Pacific Region.

Remark: It does not, however, specify the characteristics for MTAs or how the connections between MTAs are established. This document was reviewed by ATNTTF WG in 2004 and subject to be endorsed by the ATNTTF/7 and adopted by APANPIRG/16 in 2005.

3.14 AMHS Naming Plan

Title: ASIA/PAC ATS Message Handling System (AMHS) Naming Plan.

Latest Version: 3rd Edition – April 2005

Purpose: This document provides technical guidance and recommendations for the AMHS naming conventions to be adopted by AMHS users within the Region. It also provides guidance to States in the assignment and registration of the addresses and names to be used for ATS Message Handling Service (ATSMHS).

Contents: Subjects covered by the document:

- CAAS-Addressing scheme;
- XF-Addressing scheme;
- Conventions for use of CAAS-Addressing Format;
- Conventions for use of XF-Addressing Format;
- General use of X.400 O/R Addresses.

Remark: The 1st Edition of this document was adopted by APANPIRG/12 in 2001. It was updated and included as part of the 2nd Edition of the Regional Planning Document issued in March 2004. It was further amended to provide guidance to States for the management of AMHS addresses and registration with ICAO headquarters for their selection of AMHS addressing scheme.

3.15 AMHS Interface Control Document (ICD)

Title: ASIA/PAC Interface Control Document (ICD) for ATS Message Handling System (AMHS)

Latest Version: 1ST Edition – September 2002

Purpose: This document has been developed in order to facilitate interoperability between States in the deployment of AMHS within the ASIA/PAC Region.

Contents: Subjects covered by the document:

- AMHS functions;
- Network configuration;
- Protocol specification overview;
- AMHS specifications;
- Upper layer specifications;
- Lower layer specifications;
- AHMS PICS.

Remark: The 1st Edition of this document was endorsed by CNS/MET/SG/6 provided as an Appendix to its report. It was adopted and published as 1st Edition by ANPANPIRG/13 in 2002 under Conclusion 13/15**.**

3.16 AMHS Naming Registration Form

Title: AMHS Naming Registration Form

Latest Version: 2nd Edition – April 2005

Purpose: This document specifies the provisions and information that are required for registration of MTAs and UAs devices. It also lists the required information of a focal contact point responsible for ATSMHS administration for use in the ASIA/PAC Region.

Contents: Subjects covered by this registration Form:

- Table 1a - AMHS MTA and UA Register;
- Table 1b - AMHS MTA Administrator Contact List.

Remark: 1st Edition of this document was developed by the ATNTTF in 2004. The 2nd Edition was endorsed by ATNTTF in April 2005. Additional information of a contact point is required to be included in a separate table when the registration is made. The form when completed should be sent to ICAO Asia and Pacific Regional Office for registration.

ATN TECHNICAL DOUCMENTATION

3.17 Directory Services

Title: ASIA/PAC Technical Document on Use of Directory Services.

Latest Version: 1st Edition – April 2005

Purpose: This document gives a comprehensive introduction to the ATN Directory Services and specifies lists of object classes (database record types) and attributes (contents of each record type) to be supported in the Region.

Contents: Subjects covered by the document:

- Over of ATN Directory Services;
- Rationale for ATN-DS;
- X.500 Data Model, X.500 Directory Protocol and detailed X.500 data concepts;
- Usage of ATN Directory Services;
- Use of ATN-Directory Service by AMHS and by Context Management;
- Application of ATN-DS to the Asia and Pacific Regions;
- ASIA/PAC regional ATN-DS Profile and deployment schedule.

Remark: The 7th meeting of ATN Transition Task Force while endorsed the 1st Edition of this document discussed the cost implications at the initial stage of ATN/AMHS implementation. It was proposed to set up an interim regional AMHS address database.

3.18 System Management Policy

Title: ASIA/PAC ATN System Management Policy

Latest Version: 1st Edition - April 2005

Purpose: The System Management Policy defines the rules governing management of ATN data, services, and resources associated with ATN applications and processes. The document defines system management services and associated policy statements, and requires that all ATN systems have a responsible system manager.

Contents: Subjects covered by the document:

- Purpose;
- Applicability;
- Authority;
- Implementation and Enforcement;
- System Management Services;
- System Management Policy Statements;
- Responsible System Manager.

Remark: Work on this item is still pending (ATNTTF WG/12)

3.19 ASIA/PAC Regional ATN Implementation System Management Operational Procedures

Title: ASIA/PAC Regional ATN Implementation System Management Operational Procedures.

Latest Version: 1st Edition - August 2004

Purpose: This document provides initial directions and guidance in the identification, development, and selection of ATN administrative management tools, agreements and materials necessary to facilitate and continue operations required for transition from current systems to the ATN.

Contents: Subjects covered by the document:

- Introduction of Applicable Management Concepts
- Establishment of Documents Governing ATN Service Management
- Activities Performed
- Definition of Management Information
- Sample Agreements
- Recommendation
- Regional System Management Coordination

Remark: The 1st Edition of this document developed by the ATNTTF/6 was adopted by APANPIRG/15 in 2004.

3.20 System Integrity Policy

Title: ASIA/PAC ATN System Integrity Policy

Latest Version: 1st Edition – April 2005

Purpose: The System Integrity Policy defines the rules governing the protection of ATN data, services, and resources associated with ATN applications and processes from both unintentional defect and deliberate attack. The document contains high-level system integrity requirements, defines system integrity services and associated policy statements, and requires that ATN systems undergo a verification and authorization process whereby systems are formally approved for operation by a Designated Approving Authority.

Contents: Subjects covered by the document:

- Purpose
- Applicability
- Authority
- Implementation and Enforcement
- System Integrity Requirements
- System Integrity Services
- System Integrity Policy Statements
- Verification and Authorization

Remark: The 1st Edition of ASIA/PAC ATN System Integrity Policy was endorsed by ATNTTF/7 in April 2005.

3.21 System Integrity Verification Checklist

Title: ASIA/PAC System Integrity Verification Checklist.

Latest Version: Draft - April 2005 (to be developed)

Purpose: The System Integrity Verification Checklist contains a sample list of management, operational and technical controls which are examined during the verification process.

Contents: Subjects covered by the document:

- Sample Management Controls;
- Sample Operational Controls;
- Sample Technical Controls.

3.22 System Integrity Authorization Sample

Title: ASIA/PAC System Integrity Sample Authorization

Latest Version: Draft - April 2005 (to be developed)

Purpose: The sample System Integrity authorization provides a signature template for the formal approval for operation by the Designated Approving Authority.

Contents: Subjects covered by the document:

- Statement/Signature for Verification;
- Statement/Signature for Authorization.

REGIONAL REFERENCE DOCUMENTS

3.23 Guidance Material for Ground Elements in ATN Transition

Title: Guidance Material for Ground Elements in ATN Transition.

Latest Version: 2nd Edition - 2000

Purpose: This document contains guidance material for ATN transition planning within the ASIA/PAC Region. The material is technical in nature, and the description is brief so that the intention of the document is to provide the whole picture of the subject. The material is intended for the Regional Planning. Although the plan itself is mainly left to States for planning and implementation, it is hard to differentiate the regional planning from State planning.

Contents: Subjects covered by the document:

- ATN overview
- Ground-ground service components;
- Air-ground service components;
- ATN security service;
- ATN system management;
- ATN directory;
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- Planning Issues to be considered
  - ATM operational concept;
  - Transition planning;
  - Implementation planning.
  - Proposed regional planning activities for transition;

- Proposed State planning activities for transition;
- Guidance material for ground based elements;
- Integration of new and existing infrastructure;
- Message service definition, benefit and procedure in inter-domain operation;
- Guidance for administrative domain definition;
- Guidance for architectural design of ATN ground elements;
- Connection for inter-domain operation and guidance material;
- Identification of traffic type, quality of service with respect to inter-domain operation;
- Performance issues of reliability, maintainability, and reliability with respect to inter-domain operation;
- Transition paths and transitional procedure in inter-domain operation;
- Cost analysis of ATN ground elements in transitional development for inter-domain operation;
- ATN security solution.

Remark: The 1st Edition of this document was developed at first meeting of ATNTTF in 1999 and it was further updated before its adoption by APANPIRG/10 under Conclusion 10/11. It is considered as a reference document.

3.24 Reference Document for the ATN Router Description

Title: **ASIA/PAC ATN Router Description Document**

Latest Version: Edition 1.2 - May 2004

Purpose: This document describes the protocol, performance, and management requirements for the G/G BIS (Class 4) routers that form nodes of the ASIA/PAC regional network Backbone and/or have inter-State/inter-region connectivity within the ASIA/PAC Region. It provides essential procurement guidance for G/G routers to ensure the interoperability of the ATN network within in the ASIA/PAC Region. This document should be used in conjunction with ICAO Doc 9705 “Manual of Technical Provisions for the Aeronautical Telecommunication Network”, the ASIA/PAC Regional Router Interface Control Document (ICD) for ATN G/G Router, and other applicable documents as highlighted in this document.

Contents: Subjects covered by the document:

- ATN G/G Router Protocol Characteristics introduction ;
- Network Layer Requirements;
- Routing and Routed Protocols;
- Subnetwork Dependent Convergence function (SNDCF);
- Link Layer Requirements - X.25 and LAN;
- Physical Layer Requirements - X.25 and LAN;
- Performance Requirements;
- Network Management Requirements.

Remark: This reference document was developed by ATNTTF/6 in 2004 for use as advisory purposes only and is to be read in conjunction with all other plans and technical documents listed in the ATN Documentation Tree. Any inconsistency in the information

contained within these documents shall be considered the lowest ranked in order of precedence to all other documents within the ATN Documentation Tree. That is all other documents within the ATN Documentation Tree will take precedence over the contents in the ATN Router Description Document

3.25 Reference Document for the AMHS Description

Title: ASIA/PAC Regional Aeronautical Telecommunication Network (ATN) Air Traffic Service (ATS) Message Handling System (AMHS) Description

Latest Version: Edition 1 - April 2005

Purpose: This document describes the functionality, system, performance, information security, and system management requirements of the AMHS system implemented in the ASIA/PAC Region. The AMHS system includes ATS Message Server, ATS Message User Agent, and AFTN/AMHS Gateway. The AFTN/AMHS Gateway is only needed during the early stage of ATN/AMHS implementation to operate AMHS and AFTN concurrently.

Contents: Subjects covered by the document:

- Introduction on AMHS functionality including basic ATSMHS and extended ATSMHS;
- AMHS requirements including message server, user agent, AFTN/AMHS gateway;
- Upper layer requirements;
- Performance and network management;
- Information Security.

Remark: This reference document was developed by ATNTTF/6 in 2004 and further updated in October 2004. It was finalized by ATNTTF/7 in April 2005. This document is for use as advisory purposes only and is to be read in conjunction with all other plans and technical documents listed in the ATN Documentation Tree. Any inconsistency in the information contained within these documents shall be considered the lowest ranked in order of precedence to all other documents within the ATN Documentation Tree. That is all other documents within the ATN Documentation Tree will take precedence over the contents in the AMHS Description Document.

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Document	Purpose	Contents	Version	Recommendation
ICAO Annex 10 Vol. III	This ICAO document defines the Standards and Recommended Practices (SARPs) for the Aeronautical Telecommunication Network (ATN)	Chapter 1 – Definitions; Chapter 3 – Aeronautical Telecommunication Network; Chapter 4 – Aeronautical Mobile-Satellite Service; Chapter 6 – VHF Air-Ground Digital Link (VDL); Chapter 8 – AFTN. Part II – Voice Communication Systems; Chapter 2 – Aeronautical Mobile Service; Chapter 4 – Aeronautical Speech Circuits; Chapter 5 – Emergency Locator Transmitter (ELT) for search and rescue.	1st Edition – 1005 and its last update in January 2004 including Amendment 79	Reference Document

Document	Purpose	Contents	Version	Recommendation
Manual of Technical Provisions for the Aeronautical Telecommunication Network ICAO DOC 9705	The material contained in this document was originally developed as the detailed part of the first set of Standards and Recommended Practices (SARPs) for the aeronautical telecommunication network (ATN) which has commonly been referred to as the CNS/ATM-1 Package. It was intended to make the material an appendix to the new Chapter 3 of Annex 10, Volume III, Part I, containing broad, general, stable and mostly regulatory-type provisions (the core part of new ATN SARPs). "DOC 9705 is out of date and is not being maintained any more."	Sub-Volume I – Introduction and System Level Requirements; Sub-Volume II – Air-Ground Applications; Sub-Volume III – Ground-Ground Applications; Sub-Volume IV – Upper Layer Communications Services (ULCS); Sub-Volume V – Internet Communications Services (ICS);	2nd Edition - 1999	May still be referenced in AMHS ICD

Document	Purpose	Contents	Version	Recommendation
Manual of Technical Provisions for the Aeronautical Telecommunication Network ICAO DOC 9705	This ICAO manual contains detailed technical information and serves to further elaborate on the ATN standards as defined in Chapter 3 of Annex 10, Volume III, Part I	Sub-Volume I – Introduction and System Level Requirements; Sub-Volume II – Air-Ground Applications; Sub-Volume III – Ground-Ground Applications; Sub-Volume IV – Upper Layer Communications Services (ULCS); Sub-Volume V – Internet Communications Services (ICS); Sub-Volume VI – ATN Systems Management Provisions; Sub-Volume VII – ATN Directory Service; Sub-Volume VIII – ATN Security Service; Sub-Volume IX – ATN Identifier Registration	3rd Edition - 2002	Reference Document
MANUAL ON DETAILED SPECIFICATIONS FOR THE AERONAUTICAL TELECOMMUNICATION NETWORK (ATN) using ISO/OSI Standards and Protocols ICAO DOC 9880	This manual replaces the *"Manual of technical provisions for the Aeronautical Telecommunication Network (ATN)",* Doc 9705 – third edition	Part I Air-ground applications (Doc 9705/sub-volume II) Part II Ground-ground applications (Doc 9705/sub-volume III) Part III Internet communication service, including upper layer	1st Edition (unedited)	Reference Document

Document	Purpose	Contents	Version	Recommendation
	"With the publication of each part of this manual, the relevant sub-volumes of Doc 9705 will become obsolete."	communications service (Doc 9705/sub-volumes IV and V). Part IV Directory service, security services, systems management, Identifier registration and definitions (Doc 9705/sub-volumes I, VI, VII, VIII and IX).		
Manual for the ATN using IPS Standrds and Protocols ICAO DOC 9896	This document defines the data communications protocols and services to be used for implementing the ICAO ATN using the Internet Protocol Suite (IPS)	Part I – Detailed Technical Specifications. This part contains a general description of the ATN/IPS. It covers the network, transport and security requirements for the ATN/IPS Part II – Application Support. This part contains a description of applications supported by the ATN/IPS. It includes convergence mechanisms and application services that allow the operation of legacy ATN/OSI applications over the ATN/IPS transport layer. Part III – Guidance. This part contains		Reference Document

Document	Purpose	Contents	Version	Recommendation
		guidance material on ATN/IPS communications including information on architectures, and general information to support ATN/IPS implementation.		
ATN Documentation Tree	This document provides index hierarchy on relevant ATN documents that are available to assist States in their ATN planning and implementation programmers.	Names of the relevant documents; Brief introduction to the purpose and contents of each document. It also provides last edition and history of the documents	3rd Edition - 2005	Update to reflect this Working Paper
Basic Air Navigation Plan (BANP) and Facilities and Services Implementation Document (FASID)	This document contains operational requirements for facilities and services as specified in Part IV, CNS of both the ASIA/PAC BANP and FASID. The regional policy and procedures regarding implementation of ATN adopted by APANPIRG is provided in the BANP. The detailed	Table 1A, AFTN/Circuit Plan; Table 1B, ATN Router Plan; Table 1C, ATSMHS Routing Plan; Table 1D, AIDC Circuit Plan	These documents are published and maintained up-to-date by the ICAO Regional Office	Current

Document	Purpose	Contents	Version	Recommendation
	planning and implementation information is provided in the relevant CNS tables of FASID.			
ATN Ground-Ground Transition Plan	This document describes the transition activities that are to be performed by States in the region for a coordinated migration from AFTN to the new ATN environment.	Existing ground infrastructure; ATN End system applications; ATN Traffic, both ground-ground and air-ground communication paths; ATN routing architecture; ATN backbone trunks; Interconnection of ATN routers; and Transition activities.	2nd Edition – March 2004	Update to show current Backbones
Checklist for Implementation of Ground/Ground ATN Infrastructure	The checklist indicates those initial activities that are to be performed by States for a coordinated migration from AFTN to the new ATN environment.	This document describes the steps of implementation which should be considered by the States.	2nd Edition – March 2004	Update References and use of ATN Router Tests, and AMHS Interop and Pre-op Test Procedures

Document	Purpose	Contents	Version	Recommendation
Communication Performance for ATN	This document provides guidance on the ATN performance. Information on the definition of Required Communication Performance (RCP) defined by OPLINKP and the monitoring of ATN performance are provided. A set of performance parameters is described for planning phase. The operational environments are considerably different within the ASIA/PAC Region because of the air space complexities and traffic volume (air traffic as well as data traffic). Therefore, guidance provided in the document has to be adaptable to the environment of interest.	Background; Basics of Performance; Definition of Operational Aeronautical Telecommunication Process; Characterization of Aeronautical Telecommunication Performance; Required Operational Communication Performance: RCP; RCP Types; Understanding, Determining , Prescribing and Complying with RCP Types Performance; ATN; ATN Applications and ATN Communication Services Monitoring, ATN Performance.	Revision 4.0 - April 2005	Current ?

Document	Purpose	Contents	Version	Recommendation
ATN Routing Architecture	This document provides technical guidance on the transition to the Aeronautical Telecommunication network (ATN) for the ground-ground communication in the ASIA/PAC Region. The routing architecture is designed primarily for the ground-ground infrastructure to eventually replace the existing AFTN. It is intended that this architecture will also be suitable for the accommodation of the air-ground communications traffic in the future	Routing Domain Fundamentals; Router Fundamentals; ASIA/PAC Regional Routing Architecture; Routing domains; ATN Transition	2nd Edition - March 2004	Current – may not be necessary
ATN IDRP Routing Policy	This document provides policy for ATN routers operating in the ASIA and Pacific Region in support of ATSMHS and other ATN applications. The ASIA/PAC ATN IDRP document would allow States/Organizations to have additional local routing policies. Such policies may include	Routing policy goals Policy requirements for ATN routers	Version 3.1 – September 2009	Current

Document	Purpose	Contents	Version	Recommendation
	various local preferences or Quality of Service based routing, for example: routing based on line error rates, delay, capacity and priority			
ATN NSAP Addressing Plan	This document provides technical guidance and recommendations for the assignment of ATN NSAP addresses within the region. It also defines the methods by which values are assigned to each field of the NSAP Address and specifies the assumptions upon which the addressing format has been defined.	NSAP Address structure to be adopted by states of the ASIA/PAC Region; Recommendations for the values of each field of the NSAP address; Authority responsible for NSAP field assignments.	3rd Edition – September 2010	Incorrect Title on ICAO Web Site (replace "Address Registration Form" with "Addressing Plan"
ASIA/PAC Interface Control Document (ICD) for ATN Ground-Ground Router	This Interface Control Document (ICD) specifies the interface requirements for the ATN Internet Communication Service (ICS) routed and routeing protocols of the ATN G/G Boundary Intermediate Systems that form nodes of the Asia/Pacific ATN regional backbone	ATN G/G Router Overview; Network Layer 3 – Connectionless Network Protocol (CLNP) Network Layer 3 – Inter-Domain Routing Protocol (IDRP) CLNP and IDRP ATN Protocol Requirements	2nd Edition – April 2005	Current

Document	Purpose	Contents	Version	Recommendation
	network and/or have inter-State connectivity, to ensure interoperability between States. This ICD addresses the upper sub-layer of the network layer of the ATN G/G router using the ISO/OSI Basic Reference Model. These ICD guideline provisions comprise G/G router functional requirements associated with ATN Protocol Requirements Lists (APRLs) relevant to the ATN Internet Communication Service (ICS) routed protocol (ISO/IEC 8473-1 CLNP) and routing protocol (ISO/IEC 10747 IDRP).	Lists (APRLs) relevant to support layer 3 interface requirements.		
G/G Router ICD for ISO/IEC 8208 Sub-Network	This Interface Control Document (ICD) provides guidelines for interconnecting ATN G/G routers between States/organizations based on ISO/IEC 8208 sub network. The guidelines are mainly for ISO/IEC 8208 sub-	ISO Layer 1 - Physical layer; ISO layer 2 - Data Link Layer ISO layer 3 - Network Layer interface requirements between G/G routers;	1st Edition – April 2005	Current

Document	Purpose	Contents	Version	Recommendation
	network connections used to communicate between the boundaries intermediate systems that form nodes of the Asia/Pacific regional network to assure interoperability. It addresses the physical, data link and sub-network layers of the ATN G/G router ISO/IEC 8208 sub-network using the International Organization for Standardization (ISO) Information Processing Systems Open Systems Interconnection (OSI) Basic Reference Model.	Recommended interface parameters; and SNDCF (ISO/IEC 8473-3) ATN Protocol Requirements Lists (APRLs) relevant to support layer 1 to layer 3 interface requirements.		
ATN NSAP Registration Form	This document provides the provisions and information required for registration of devices that are to connect to the ATN environment within the Region	Registration of NSAP Addresses for ATN Routers and ATN End-System; Registration of Communication Circuits for ATN Routers and ATN End-Systems	2nd Edition – March 2004	Not necessary with AMC

Document	Purpose	Contents	Version	Recommendation
AMHS MTA Routing Policy	To refine the implementation planning for AMHS, this document is required for determination of the routing of AMHS messages between systems within the Region and to systems outside the Region. This document presents AMHS routing policies to be used within the ASIA/PAC Region. The development of this AMHS routing policies is based on the need of States and AMHS administrators to be able to control the flow of messages into individual AMHS systems.	This document covers policy for AMHS systems to route AMHS messages between MTAs within ASIA/PAC Region both in the transitional phase and final phase of AMHS implementation. It also outlines the policy for inter-region AMHS connections between the Region and other regions. It also describes the MTA backbone sites in the Asia and Pacific Region.	1st Edition – April 2005	Current

Document	Purpose	Contents	Version	Recommendation
AMHS Naming Plan	This document provides technical guidance and recommendations for the AMHS naming conventions to be adopted by AMHS users within the Region. It also provides guidance to States in the assignment and registration of the addresses and names to be used for ATS Message Handling Service (ATSMHS)	CAAS-Addressing scheme; XF-Addressing scheme; Conventions for use of CAAS-Addressing Format; Conventions for use of XF-Addressing Format; General use of X.400 O/R Addresses	3rd Edition – April 2005	Current
AMHS Interface Control Document (ICD)	This document has been developed in order to facilitate interoperability between States in the deployment of AMHS within the ASIA/PAC Region	AMHS functions; Network configuration; Protocol specification overview; AMHS specifications; Upper layer specifications; Lower layer specifications; AHMS PICS.	1st Edition – September 2002	Recommend replacing create new document using EUROCONTRO Spec for AMHS

Document	Purpose	Contents	Version	Recommendation
AMHS Naming Registration Form	This document specifies the provisions and information that are required for registration of MTAs and UAs devices. It also lists the required information of a focal contact point responsible for ATSMHS administration for use in the ASIA/PAC Region.	Table 1a - AMHS MTA and UA Register; Table 1b -AMHS MTA Administrator Contact List	2nd Edition – April 2005	Not necessary with AMC
ASIA/PAC ATN Directory Services	This document gives a comprehensive introduction to the ATN Directory Services and specifies lists of object classes (database record types) and attributes (contents of each record type) to be supported in the Region.	Over of ATN Directory Services; Rationale for ATN-DS; X.500 Data Model, X.500 Directory Protocol and detailed X.500 data concepts; Usage of ATN Directory Services; Use of ATN-Directory Service by AMHS and by Context Management; Application of ATN-DS to the Asia and Pacific Regions; ASIA/PAC regional	1st Edition – April 2005	Delete – region should use AMC only

Document	Purpose	Contents	Version	Recommendation
		ATN-DS Profile and deployment schedule		
System Management Policy	The System Management Policy defines the rules governing management of ATN data, services, and resources associated with ATN applications and processes. The document defines system management services and associated policy statements, and requires that all ATN systems have a responsible system manager	Purpose; Applicability; Authority; Implementation and Enforcement; System Management Services; System Management Policy Statements; Responsible System Manager	1st Edition – April 2005	Current
ASIA/PAC Regional ATN Implementation System Management Operational Procedures	This document provides initial directions and guidance in the identification, development, and selection of ATN administrative management tools, agreements and materials necessary to facilitate and continue operations required for transition from current systems to the ATN.	Introduction of Applicable Management Concepts Establishment of Documents Governing ATN Service Management Activities Performed Definition of Management Information Sample Agreements	1st Edition – August 2004	Current

Document	Purpose	Contents	Version	Recommendation
		Recommendation Regional System Management Coordination		
Asia/Pacific ATN System Security Policy	The System Security Policy defines the rules governing the protection of ATN data, services, and resources associated with ATN applications and processes from both unintentional defect and deliberate attack. The document contains high-level system integrity requirements, defines system integrity services and associated policy statements, and requires that ATN systems undergo a verification and authorization process whereby systems are formally approved for operation by a Designated Approving Authority	Purpose Applicability Authority Implementation and Enforcement System Integrity Requirements System Integrity Services System Integrity Policy Statements Verification and Authorization	2nd Edition – September 2008	Current
Asia/Pacific Recommended Security Checklist	The Security Checklist contains a sample list of management, operational and technical controls which	Sample Management Controls; Sample Operational Controls;	2nd Edition – September 2009	Current

Document	Purpose	Contents	Version	Recommendation
	are examined during the verification process.	Sample Technical Controls.		
Asia/Pacific ATN Security Guidance Document	This Security Guidance Document for the Asia/Pacific Region provides guidance on the implementation of security for states and organizations operating in the region	Introduction Security Control Families Management Control Guidance Operational Control Guidance Technical Control Guidance	2nd Edition – September 2010	Current
Guidance Material for Ground Elements in ATN Transition	This document contains guidance material for ATN transition planning within the ASIA/PAC Region. The material is technical in nature, and the description is brief so that the intention of the document is to provide the whole picture of the subject. The material is intended for the Regional Planning. Although the plan itself is mainly left to States for planning and implementation, it is hard to differentiate the regional planning	ATN overview Ground-ground service components; Air-ground service components; ATN security service; ATN system management; ATN directory; Planning Issues to be considered ATM operational concept;	2nd Edition – 2000	Delete

Document	Purpose	Contents	Version	Recommendation
	from State planning.	Transition planning; Implementation planning. Proposed regional planning activities for transition; Proposed State planning activities for transition; Guidance material for ground based elements; Integration of new and existing infrastructure; Message service definition, benefit and procedure in inter-domain operation; Guidance for administrative domain definition; Guidance for architectural design of ATN ground elements; Connection for inter-domain operation and guidance material; Identification of traffic type, quality of service		

Document	Purpose	Contents	Version	Recommendation
		with respect to inter-domain operation; Performance issues of reliability, maintainability, and reliability with respect to inter-domain operation; Transition paths and transitional procedure in inter-domain operation; Cost analysis of ATN ground elements in transitional development for inter-domain operation; ATN security solution		
Reference Document for the ATN Router Description	This document describes the protocol, performance, and management requirements for the G/G BIS (Class 4) routers that form nodes of the ASIA/PAC regional network Backbone and/or have inter-State/inter-region connectivity within the ASIA/PAC Region. It provides essential procurement guidance	ATN G/G Router Protocol Characteristics introduction ; Network Layer Requirements; Routing and Routed Protocols; Subnetwork Dependent Convergence function (SNDCF); Link Layer	Edition 1.2 – May 2004	Update with reference to IP SNDCF

Document	Purpose	Contents	Version	Recommendation
	for G/G routers to ensure the interoperability of the ATN network within in the ASIA/PAC Region. This document should be used in conjunction with ICAO Doc 9705 "Manual of Technical Provisions for the Aeronautical Telecommunication Network", the ASIA/PAC Regional Router Interface Control Document (ICD) for ATN G/G Router, and other applicable documents as highlighted in this document.	Requirements - X.25 and LAN; Physical Layer Requirements - X.25 and LAN; Performance Requirements; Network Management Requirements.		
Reference Document for the AMHS Description	This document describes the functionality, system, performance, information security, and system management requirements of the AMHS system implemented in the ASIA/PAC Region. The AMHS system includes ATS Message Server, ATS Message User Agent, and	Introduction on AMHS functionality including basic ATSMHS and extended ATSMHS; AMHS requirements including message server, user agent, AFTN/AMHS gateway; Upper layer requirements; Performance and	Edition 1 – April 2005	Update with references to AMC not Directory

Document	Purpose	Contents	Version	Recommendation
	AFTN/AMHS Gateway. The AFTN/AMHS Gateway is only needed during the early stage of ATN/AMHS implementation to operate AMHS and AFTN concurrently	network management; Information Security.		
Strategy for Implementation of ATN in the Asia/Pacific Region	In order to assist States in the implementation of the ground-to-ground ATN it was agreed to develop a strategy.			The strategy has been developed for approval
Guidance Document for AMHS Conformance Testing	This document has been developed by ATN ICG in order to present a comprehensive collection of test and checklist required to ensure conformance and compatibility pertaining to the implementation of AMHS facilities in the Asia and the Pacific Region.	Structure of the Manual Introduction AMHS Requirements AMHS Protocol Scenarios System Implementation – Guidelines for System Requirements Requirements for Statistics Test and Validation of AMHS Systems References	Version 3.0 – September 2009	Recommend that this document be titled "Asia/Pacific Guidance Document for AMHS Testing" Only the "Test and Validation of AMHS Systems" should be retained. Conformance Testing should be optional.

Document	Purpose	Contents	Version	Recommendation
				Incorporate "Phase testing procedure to transit from AFTN routing to MTA-to-any-MTA routing" document
Test Procedure for ATN Router Connection Test	This document describes the test procedure for the Ground-Ground (G/G) Aeronautical Telecommunication Network (ATN) router connection.	Introduction References Test Overview and Scope Communication Parameters Schedule and Test Item Overview Test Cases	Version 3.1 – September 2010	Current
AMHS Inter-operability tests	The purpose of the document is to define the functional tests for AMHS Interoperability in order toensure the end-to-end interoperability between AMHS systems under test.	Introduction AMHS Interoperability Test Environment Addressing Plan for AMHS Interoperability Testing Bilateral Test procedures	Version 3.0 – September 2009	Current

Document	Purpose	Contents	Version	Recommendation
		Trilateral Test procedures Bilateral Test Procedures – Test Scenarios Trilateral Test procedures – optional Test message templates		
AMHS Pre-operational tests	The purpose of the document is to define AMHS Pre-operational Tests in order to ensure the interoperability between AMHS systems prepared for going into operation.	Introduction AMHS Pre-operational Test Environment Operational system setup - Configuration Addressing Plan for AMHS Pre-operational Testing Test Description	Version 3.0 – September 2009	Current