



International Civil Aviation Organization

**THE SEVENTH MEETING OF AERONAUTICAL
TELECOMMUNICATION NETWORK (ATN)
TRANSITION TASK FORCE OF APANPIRG**

Shanghai, China, 18-22 April 2005.



Agenda Item 2: Review ATN Technical Documentation on - Documentation Tree

NEW EDITION OF ATN DOCUMENTATION TREE

(Presented by Secretariat)

SUMMARY

ATN Documentation Tree catalogues all relevant ATN planning and guidance material and documents that are related to the planning and implementation of the ATN for the ASIA/PAC Region. The draft 3rd Edition of this document provided in the Attachment reflects the latest updates of documents developed by the ATNTTF.

1. INTRODUCTION – Review history of the Tree

1.1 A number of ATN documents have been developed to assist States with their planning and implementation programs in the Asia Pacific Region. Due to the large number of documents having been produced, it was proposed by the ATNTTF Working Group B meeting in Chiang Mai that a documentation tree should be developed to further assist States in identifying all relevant ATN documents that are available.

1.2 The ASIA/PAC ATN Documentation Tree provides an index and hierarchy on relevant ATN documents. The first Edition of this document was adopted by APANPIRG/13 under Conclusion 13/14 in 2002.

1.3 It was considered that the document should be kept up to date with the latest revision indicating details of ATN applicable documents including any additions and deletions which would be useful to the States for planning and implementation of ATN.

1.4 The second Edition of the document was reviewed by the ATNTTF WG/6 meeting in Canberra and finalized at its seventh meeting in Fiji with appropriate recommendations. The proposed changes were endorsed by ATNTTF/5 held in Phuket and its updated version was adopted by APANPIRG/14 under Conclusion 14/13 in 2003. It was reissued as part of ATN Planning Documents in March 2004.

2. DISCUSSION

2.1 At ATNTTF/6 held Bali, Indonesia 2004, USA proposed some changes to the structure of the tree and to add new set of documents. The comments were referred back to ATN WG for further study and refinements.

2.2 At ATNTF WG/11 meeting held in September 2004, the document was further reviewed. The meeting tasked the Secretariat to update the information in Documentation profile and to prepare the 3rd Edition of the ATN Document Tree.

2.3 In the draft 3rd Edition of the Documentation Tree, the proposed matrixed structure was integrated with additional category of ATN reference documents and System integrity.

2.3.1 Under planning and policy category, the following documents are added:

- Basic/ANP is mentioned together with FASID;
- The checklist for initial activities for implementation of ATN;
- Regional RCP for ATN is reserved as it is the basic requirement for planning and designing phase.

2.3.2 The documentation profile has been updated. The documentation profile has been arrangement in the order of a) planning policy; b) router infrastructure; c) ATN application; technical support document; and d) reference document.

2.3.3 It is easier to locate the required document and its relation with rest of the documentation based the new matrix structure.

2.3.4 Based on result of discussion at the ATNTTF WG/12 meeting, AIDC related documentation is not included for the time being except the CNS Table 1D in FASID is mentioned.

2.3.5. Documentation profile for System Integrity related document is subject to endorsement by ATNTTF/7.

2.3.6 For the time being, the ICD for ATN G/G Router has not been separated with independent ICDs for different subnetworks as proposed at ATNTTF/6 meeting.

2.3.7 In order for readers to trace the history of these regional ATN related documents, information was provided in the Remark part of the documentation profile to indicate dates of adoption and updating.

3. ACTION BY THE MEETING

3.1 The meeting is invited to review the TREE structure and documentation profile provided in the attachment to this paper.

3.2 With necessary amendments and polishing, the meeting is invited to endorse the 3rd Edition of the ASIA/PAC ATN Documentation Tree.



INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA AND PACIFIC OFFICE

DRAFT

ASIA/PAC REGIONAL
AERONAUTICAL TELECOMMUNICATION NETWORK (ATN)
DOCUMENTATION TREE

Third Edition

April 2005

Issued by the ICAO Asia/Pacific Regional Office, Bangkok

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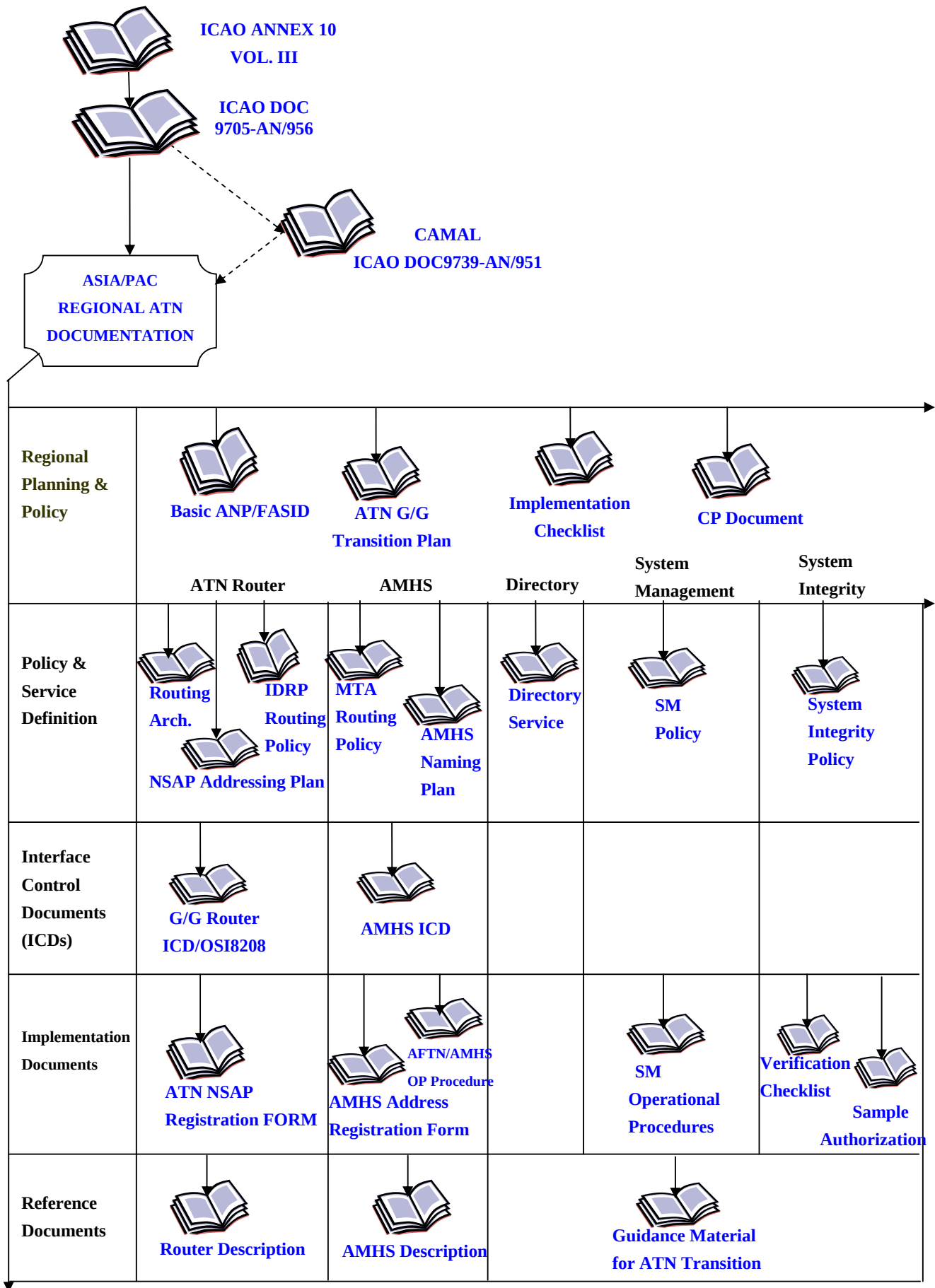
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ATN DOCUMENTATION TREE

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 programmes.

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 ATN-TTF/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 SND CF'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 subject to adoption by the ATNTTF and further development.

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.

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 2 nd 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.
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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 *ATN G/G Router Interface Control Document (ICD)*

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

Latest Version: 2nd Edition - April 2005

Purpose: This document provides G/G router Interface Control Document (ICD) guidelines for interconnecting ATN G/G routers between States/organizations based on ISO/IEC 8208 sub network. This ICD specifies the interface requirements for the ATN G/G Routers that form nodes of the ASIA/PAC ATN regional backbone network and/or have inter-State connectivity, to ensure interoperability between States. This ICD applies to an ISO/IEC 8208 connection over point-to-point circuit.

Contents: Subjects covered by the document:

- ATN G/G Router Overview;
- ISO layer 1- Physical Layer, layer 2- Data Link Layer and layer 3 - Network Layer interface requirements between G/G routers;
- G/G router functional requirements associated with 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 adopted by APANPIRG/14 in 2003. It was further updated and endorsed by ATNTTF in April 2005 based the Issue 2.0 finalized in February 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 DOCUMENTATION

3.17 *Directory Services*

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

Latest Version: 1st Edition (based on the 6th Draft –Sep 2004) – 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:

- Overview 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: Draft - 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 ATN TTF/6 was adopted by APANPIRG/15 in 2004.

3.20 ***System Integrity Policy***

Title: ASIA/PAC ATN System Integrity Policy

Latest Version: Draft - November 2003

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

3.21 *System Integrity Verification Checklist*

Title: ASIA/PAC System Integrity Verification Checklist.

Latest Version: Draft - April 2005

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

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;
-
- 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 ATN-TTF 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 an advisory document. The document was prepared to provide description of the ground-ground router related protocols, performance, network management and security requirements. This document is for use as advisory purpose and will serve as complementary information to those material contained in the ATN G/G Router ICD and C ATN Inter Domain Routing Policy (IDRP).
3.25	<i>Reference Document for the AMHS Description</i>
Title:	ASIA/PAC Regional Aeronautical Telecommunication Network (ATN) Air Traffic Service (ATS) Message Handling System (AMHS) Description
Latest Version:	Edition 1.3 - 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 updated as Issue 1.2 in October 2004. Additional information was added into the document on introduction the ATS Message Handling system (AMHS) including description of AFTN System, X.400 Architecture and protocols, ATSMHS, AMHS and initial/evolving AMHS configuration. This document is for use as advisory purpose and will serve as complementary information to those material contained in the AMHS ICD and MTA routing policy.
