



*International Civil Aviation Organization*

**Fifth Meeting of Aeronautical Telecommunication Network (ATN)  
Transition Task Force of APANPIRG**

Phuket, Thailand, 9-13 June 2003

**Agenda Item 4: Review the development status of ATN technical documents**

**Modifications to the ATN Documentation Tree**

(Presented by the Rapporteur of the ATNTTF Ad Hoc Working Group)

**SUMMARY**

This Working Paper presents proposed changes to the ATN Documentation Tree that was accepted at the ATN Transition Task Force fourth meeting in Mumbai. 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.

**1. Introduction**

The ATN Documentation Tree was submitted at the fourth meeting of the ATN Transition Task Force and was accepted as a document that would be useful to the Asia Pacific Region.

It was also agreed that the document should be kept up to date with the latest revisions of applicable ATN documents.

**2. Proposed Changes**

In line with the objectives and purpose of the ATN Documentation Tree document, the document was reviewed by the ATNTTF Ad Hoc Working Group at its sixth meeting in Canberra and finalised at its seventh meeting in Fiji with appropriate recommendations.

The ATNTTF Ad Hoc Working Group made a number of changes to the ATN Documentation Tree document and have been included them in a proposed draft version 2 of the document in Appendix A.

**3. Action by the Meeting**

The meeting is requested to:

- a) Review the contents of the attached document;
- b) Comment on the proposed changes; and
- c) Endorse the proposed changes for approval.

***Appendix A – ATNTTF Documentation Tree***

INTERNATIONAL CIVIL AVIATION ORGANISATION  
ASIA PACIFIC OFFICE



DRAFT

DOCUMENTATION MAP  
FOR THE  
ASIA PACIFIC ATN TRANSITION

March 2003

Version 2.0

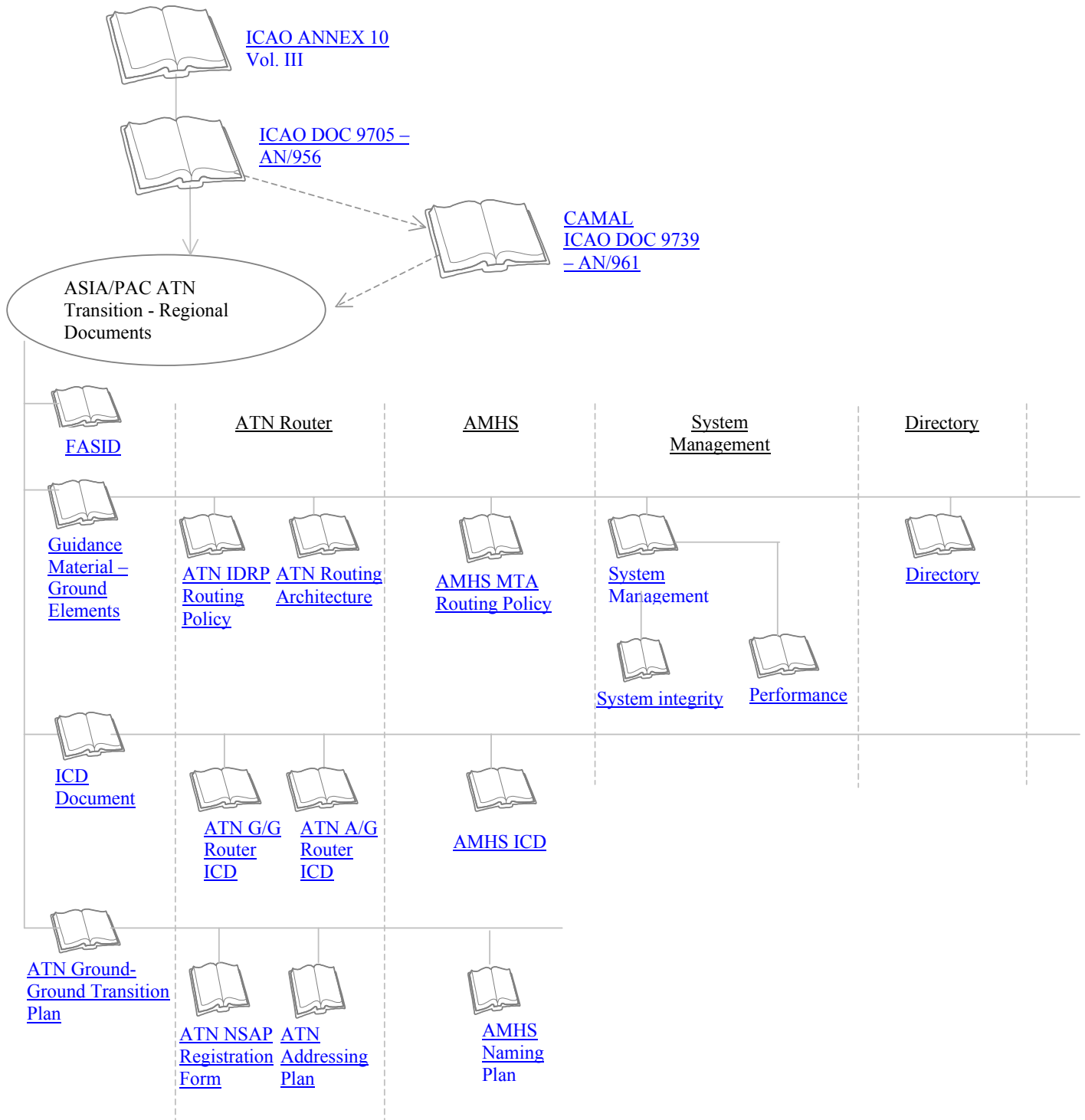
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## **1 Scope**

This document has been developed to serve as a catalogue of all documentation 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:** 3<sup>rd</sup> 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 (CAMAL) - ICAO DOC 9739 – AN/961**

**Title:**

Comprehensive Aeronautical Telecommunications Network (ATN) Manual.

**Latest Version:** 2<sup>nd</sup> Edition - 2002

**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 ATN IDRP Routing Policy**

**Title:**

Asia/Pacific ATN IDRP Routing Policy.

**Latest Version:** To be developed

**Purpose:**

**Contents:**

### **3.5 AMHS MTA Routing Policy**

**Title:**

Asia/Pacific AMHS MTA Routing Policy.

**Latest Version:** To be developed

**Purpose:**

**Contents:**

### **3.6 Directory**

**Title:**

Asia/Pacific Technical Document on Use of Directory Services.

**Latest Version:** To be developed

**Purpose:**



**Contents:**

### **3.7 System Management**

**Title:**

Asia/Pacific Regional System Management Transition Guideline Document.

**Latest Version:** To be developed

**Purpose:**

**Contents:**

### **3.8 Performance**

**Title:**

Asia/Pacific Technical Document on ATN Performance.

**Latest Version:** To be developed

**Purpose:**

**Contents:**

### **3.9 System Integrity**

**Title:**

Asia/Pacific Policy for ATN System Integrity.

**Latest Version:** To be developed

**Purpose:**

**Contents:**

### **3.10 ATN G/G Router ICD**

**Title:**

Asia/Pacific Regional Interface Control Document for ATN Ground to Ground Router for ISO/IEC 8208 sub network.

**Latest Version:** Version 1.0

**Purpose:**

This document provides ICD for interconnecting ATN G/G routers between states/organizations for ISO/IEC 8208 sub network.

**Contents:**

Subjects covered by the document:

- ATN G/G Router Overview.
- Physical Layer.

- Data Link Layer.
- Network Layer.

### **3.11 ATN A/G Router ICD**

**Title:**

Asia/Pacific Regional Router Interface Control Document for ATN Air to Ground Router.

**Latest Version:** To be developed

**Purpose:**

**Contents:**

### **3.12 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.

### **3.13 ATN Routing Architecture**

**Title:**

Asia/Pacific 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.

### ***3.14 ATN NSAP Addressing Plan***

**Title:**

Asia/Pacific 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 to be adopted by states of the Asia/Pacific Region.
- Recommendations for the values of each field of the NSAP address.
- Authority responsible for NSAP field assignments.

### ***3.15 AMHS Naming Plan***

**Title:**

Asia/Pacific 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.

### ***3.16 ATN NSAP Registration Form***

**Title:**

Asia/Pacific 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.

### ***3.17 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/Pacific 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.

### ***3.18 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/Pacific region.

**Contents:**

Subjects covered by the document:

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

### ***3.19 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/Pacific 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.