AERONAUTICAL TELECOMMUNICATION NETWORK PANEL

WORKING GROUP 2

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CNS/ATM-1 Package Sub-Volume V

Draft Validation Report

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SUMMARY

This working paper presents the first draft of the CNS/ATM-1 Package Sub-Volume V Validation Report for the consideration of the Working Group

CNS/ATM-1 Package
Sub-Volume V

Validation Report

Document Change Log

Version	Date	Modified Pages	Comments
0.0 Draft	30/01/96	N/A.	Initial draft version
0.1 Draft	7/02/96	All.	Version presented to WG2-7
0.11	9/02/96	All	Changed Filename and footers

Table of Contents

1. INTRODUCTION

This document details the process employed in the validation of the CNS/ATM-1 Package Sub-Volume V Standards and Recommended Practices (SARPs) which address the Internet Communications Service, as produced by Working Group 2 of the ATN Panel. It compiles and summarises the results of that validation process and presents a recommendation for the consideration of the ATN Panel.

1.1 SARPs Development

The SARPs for the ATN Internet Communications Service have been developed through a number of iterations prior to the finalisation of Sub-Volume V.

The ATN was originally the responsibility of the SSR Improvement and Collision Avoidance System Panel (SICASP) which produced the ATN Manual. There have been two editions of the ATN Manual, the Second Edition forming the basis of a large body of initial validation work.

Responsibility for the development of the ATN SARPs and GM was assumed by the ATN Panel upon its creation in 1993. The first draft version of the SARPs were based on the ATN Manual Second Edition.

The final version of the CNS/ATM-1 Package SARPs will be cmpleted and submitted to ICAO in June 1996.

1.2 CNS/ATM-1 Package Definition

The CNS/ATM-1 Package SARPs define the operation of the ATN in its first implementation. The SARPs are divided into a number of sub-volumes, each of which addresses an element of the package.

1.2.1 Air/Ground Applications

A set of Air/Ground applications are defined which are to be supported by the CNS/ATM-1 Package compliant ATN. These applications are:

- Context Management (CM)
- Automatic Dependent Surveillance (ADS)
- Controller—Pilot Data-Link Communications (CPDLC)
- Flight Information Service (FIS)

1.2.2 Ground/Ground Applications

A set of Ground/Ground applications are defined which are to be supported by the CNS/ATM-1 Package compliant ATN. These applications are:

- Aeronautical Message Handling Service (AMHS)
- ATN/AFTN Gateway
- AIDC ?

1.2.3 Upper Layer Architecture

The upper layer architecture addresses the requirements of the Session, Presentation and Application layers, particularly addressing the need for efficiency improvements with respect to the limited bandwidth air/ground subnetworks.

1.2.4 Internet Communications Service

The Internet Communications Service addresses the requirements for the Physical, Datalink, Network and Transport layers.

1.3 ATNP Working Group 2 Programme

To be defined at WG2-7

2. VALIDATION OBJECTIVES

TBD

3. VALIDATION STRATEGY

The strategy employed in the validation of Sub-Volume V SARPs incorporates a range of techniques and tools. The strategy aims to ensure the completeness and traceability of the validation process. Each element of the validation strategy contributes towards these aims.

3.1 Validation Database

The validation database was created to meet a range of needs, its primary use being to support the validation activities related to Sub-Volume V. The database provides the means to ensure the completeness of the validation activities.

3.2 Validation Toolset

To ensure the traceability of the validation activities, it is important that tools used to conduct the validation exercises be properly documented. For each tool used in the validation exercises, a validation tool description may be found in Annex Annex B .

3.3 Specification of Validation Exercises

To complete the traceable records, each validation exercise must be documented. With the tools set documented and the exercises documented, the means by which each requirement in the Database has been validated can be clearly recorded. The Validation exercise descriptions are found at Annex Annex C .

3.4 Completion of Validation Exercises

This section describes the process to be used for documenting the conduct of a validation exercise. It is expected that this process would include:

- Documentation of the environment in which the exercise is to be carried out.
- Documentation of the process used during the conduct of the exercise
- Procedure for recording results and producing the validation reports found in Annex Annex E .

3.5 Analysis of Validation Results

This section describes the process used in the analysis of the validation results.

3.6 Consolidation of Validation Results

This section describes the process used to produce the consolidated validation results found in Annex Annex D .

4. CONCLUSIONS

TBD

Annex A VALIDATION DATABASE DESCRIPTION

Annex B VALIDATION TOOL DESCRIPTIONS

Annex C VALIDATION EXERCISE SPECIFICATIONS

Annex D CONSOLIDATED VALIDATION RESULTS

Annex E VALIDATION REPORTS