AERONAUTICAL TELECOMMUNICATION NETWORK PANEL

WORKING GROUP 3 (APPLICATIONS AND UPPER LAYERS)
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Proposed ADS Guidance Material Structure

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SUMMARY

This paper proposes a structure for the guidance material for ADS. The proposed structure could also be adapted for the guidance material for the other air/ground application SARPs.

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1   INTRODUCTION

ATNP/WG3/SG2 is charged with the production of guidance material (among other things). This document proposes a structure for the guidance material for ADS. The structure can be adapted for the other air-ground application SARPs.

It should be noted that this is a discussion paper presenting a few initial ideas. ATNP/WG3/SG2 have not yet agreed a specific structure for guidance material. It is presented to WG3 for comment.

2   PROPOSED STRUCTURE

1   Introduction

(approximately 1 page)

1.1   Scope

1.2   References

2   Background

(approximately 5 pages)

2.1   Purpose of ADS

This describes what ADS will be used for.

2.2   History of ADS SARPs development

This is a brief description of where ADS comes from:

- RTCA MOPS

- ADS panel

- ATN panel

2.3   ADS Functionality

This gives a brief, but complete, description of ADS functionality.

2.4   Reference Material

This gives a brief summary of other documents that are important (e.g. half a page on each:

- ADS SARPs

- ULA SARPs

- ICAO Manual of ATS DL applications

3   Commentary on the ADS SARPs

(approximately 10 to 20 pages)

3.1   Chapter 1

3.2   Chapter 2

etc.

This is a commentary on the SARPs themselves, stating why things are written the way they are. Some of the sections can be skipped, being quite clear, whereas others will need a lot of explanation.

4 Implementation Options

(approximately 5 pages)

4.1 Introduction

This explains what the chapter is about, stressing that it gives a set of ideas - these are not the only ways to implement.

4.2 User Interface options

This gives some ideas on the user interface functions. This should not give ideas for display layout. It should give advice on things like setting up standard contracts on a single button push, not necessarily giving the controller the possibility of every single option etc.

4.3 Technical Architecture

This gives some ideas for the structure of the implementation e.g. putting everything on one machine, putting all the communications software on a communications processor, using standard components, interfacing with existing systems.

4.4 Options in the SARPs

This will explain how the subsetting rules define options that can be built.

5 Usage Options

(approximately 10 -15 pages)

5.1 Introduction

Explanation of the section, including a statement that these are not the only ideas and that an operating agency may choose to use ADS as it pleases.

5.2 ADS in Oceanic Airspace

Description of an aircraft in oceanic airspace. The controller sets up an event contract such that an ADS-report is only generated when the aircraft moves away from its planned route.

5.3 ADS on Approach

Description of an aircraft on approach. The controller sets up a fast (e.g. 5 second) periodic contract.

5.4 ADS at an FIR Border

Description of the use of ADS as the aircraft crosses an FIR border. As the aircraft approaches the border, the controller's ground system automatically establishes a ground-ground link and forwards all reports from the aircraft to the neighbouring ATC system. Once the aircraft has done a CM-login, the neighbouring ATC system establishes its own ADS contracts with the aircraft.

..... etc.

3 RECOMMENDATIONS

It is recommended that ATNP/WG3 comment on the suitability of the proposed structure, and suggest any changes that they might see as useful.