AERONAUTICAL TELECOMMUNICATIONS NETWORK (ATN)

WG3 - (ATN Applications and Upper Layers) Fifteenth Meeting

Honolulu, Hawaii, USA

19 - 22 January 1999

Agenda Item 3: Review Status/Outcome of Appropriate Meetings

Report of ADSP WG A & B Meetings, Madrid

(Presented by M J Asbury)

1.   INTRODUCTION

1.1   The Automatic Dependent Surveillance Panel Working Groups A (ADS) and B (all other ATS applications and RCP) met in Madrid from 19 - 30 October 1998.

1.2   The two attachments to this paper give an outline of the work done. The ICAO ADSP Secretary has prepared reports of the two meetings, and fuller details are availble from him at the ICAO Headquarters.

2.   DISCUSSION

Working Group A

2.1   The greater part of the meeting related to input to PANS-RAC, Doc 4444. However, there were references to security, the need for pilot input to emergency situations and other operational requirements of which ATNP WG3 is well aware. In addition, there was some discussion on the downlinking of aircraft parameters in support of better radar accuracy.

Working Group B

2.2   Again, the greater part of the meeting related to input to PANS-RAC, Doc 4444. However, there were references to the need for a new DFIS METAR service, and discussion of the appropriate ranges and resolutions. In addition, there was agreement on the non-requirement of lower case letters in the IA 5 message set, and new definitions of Data Authority. The question of delayed messages, as a function of the OSI protocols and its effect on ATC operations was also raised, and will be handled by ATNP WG2.

3.   RECOMMENDATION

3.1   The Working Group is recommended to review the outcome of the ADSP WG meetings, and discuss the applicable requirements in the appropriate agenda items.

BRIEF NOTES OF THE AUTOMATIC DEPENDENT SURVEILLANCE PANEL (ADSP) WORKING GROUP A (WG A) MEETING, MADRID, 26 - 30 OCTOBER 1998

1.   The latest meeting of ADSP WG A was held in the Hotel Melia Los Galgos, Madrid, Spain from 26 - 30 October 1998. It was attended by 22 members from 8 states and 5 International Organisations. The meeting was hosted by Toni Galdo, the member for Spain, who delivered a speech of welcome. The meeting was chaired by Don MacLean (NAVCANADA)

2.   In reporting work done on topics for which the Working Group was responsible, Germany indicated that ADS-B was a major topic seen as part of the future strategy. There was already extensive work in the area of ADS-B, although they also concluded that ADS-B will not be mature enough before at least 2007/8. But nevertheless, the long-term goal was to move to ADS-B. There was yet more emphasis on the STDMA/VDL Mode 4 work, and the benefits which would accrue from the use of this technology. There was a recognition that there will a need to make a decision between this and the Mode-S extended squitter, but since ADS-B was not exactly ripe for implementation, DFS had decided that there was no need to make the technology decision yet.

3.   Published information indicated that the Australians seemed to have developed ADS-B requirements because of revision of Class G airspace, for the times when scheduled aircraft may use this airspace. The Australian member said that this was journalistic hype, more in hope than anticipation, and that ASA had still no fully developed operational requirement for ADS-B.

4.   The main focus of work at this meeting was to develop further amendments to, or new material for, ICAO Annexes and PANS-RAC resulting from implementation of ADS. UK had chaired an earlier WG A Task Force, responsible for the preparation of draft material. This draft material had been reviewed by RGCSP also, and their comments were noted. The ADS procedures developed for PANS-RAC virtually have the status of an ICAO Annex, and the treatment of the material had to be very precise if it was to be accepted by the ANC for global dissemination and implementation. The draft material had suggest a level of automation which should be considered when considering ADS procedures, but both ICAO and some of the international organisations felt strongly that this was forcing a level of implementation, which was contrary to ICAO policy.

5.   The review of the material was tedious, and took two and a half days. The problem is that the material is needed to form the basis of ATC procedures in an ADS environment, and to ensure global interoperability. PANS-RAC is major source documentation for scores of States, many of whom will be expected to implement ADS fairly soon, if they are not already doing so (e.g. Japan). There is a terrible lack of awareness of oceanic and remote area operations.

7.   The next meeting will be held in Adelaide from 1 - 5 February 1999. The next again meeting, a pre-ADSP/5 Working Group of the Whole meeting, is expected to take place in Ottawa from 26 April to 7 May 1999, with the Panel meeting taking place in the October.

BRIEF NOTES OF THE AUTOMATIC DEPENDENT SURVEILLANCE PANEL (ADSP) WORKING GROUP B (WGB) MEETING, MADRID, 19 - 23 OCTOBER 1998

1   The latest meeting of ADSP WGB was held in the Hotel Melia Los Galgos, Madrid, Spain from 19 - 23 October 1998. It was attended by 23 members from 8 states and 4 International Organisations. The meeting was chaired by Jean Francois Grout - 30 work papers and Information papers were presented. Chris Dalton, the ICAO ADSP Secretary was in attendance, providing ICAO advice and policy.

2.   The WG reviewed amendment proposals for the AIDC, CPDLC and D-FIS parts of the Manual for ATM Data Link Applications (Doc 9694) for completeness and clarity. The ICAO Met Secretariat had made many comments on parameters, ranges and resolutions relating to Met services, and offered information extracted from the relevant WMO documentation. But in some cases Met notation and operational notation is different for the same occurrence. The WG was looking to progress the addition of the METAR service to D-FIS. The ultimate aim of the ADSP Secretariat was that all Manual material would go to Annex 11 (and other Annexes as appropriate) and PANS-RAC - Doc 4444. But some members would like to see the Manual as a focal point - it was already being used for reference.

3.   The WG agreed the UK proposal to use the ITA 2 Alphabet listed in Annex 10 (upper case letter, numbers and a few characters), with the addition of the space character, which would suit current non-case sensitive data link applications. There had been incidents where the size of the font could gave an implication that lower case information was 'second class'. UK proposed definitions relating to Data Authority, as amended by the meeting, were also accepted. UK had also proposed new transition material for the Manual, and this would be actioned at the next meeting.

4.   IFATCA highlighted a problem whereby, as a result of the OR that messages should be delivered in the order sent, a vital message could be held up if a previous message was lost. If messages were held up, communication with the aircraft was effectively blocked. The WG needed to know the rate of occurrence, and this problem should be discussed with ATNP members.

5.   The WG reviewed amendment proposals for Annexes 2 and 11 and Doc 4444 as they related to the CPDLC and D-FIS parts of the Manual. UK had proposed a change to the ATIS message to allow notification of Approach Type to be optional, but IFALPA wanted even more information than was currently transmitted. UK would revise and resubmit its proposals.

6.   Amendments to Doc 4444 had been prepared by a Drafting Group, and were reviewed. There was major serious discussion on the question of voice or data read-back of data linked messages. IFALPA was very unhappy about not reading back a clearance. Uninhibited use of free text was considered likely to cause major problems, if not accidents, but UK noted the need to take account the regular use of pre-formatted free text introduced by States to facilitate normal operations, e.g. routine departure clearances. The problem of aircraft requesting unsupported services e.g. metric flight levels in non metric airspace needed more work. Procedures relating to mixed voice/ data link operations and transfer of communications needed to be refined. Many members did not understand fully the concept of NAT operations and downstream clearances - the traffic flow was totally different from Europe as from Gander - this was essentially a Westbound clearance problem.

7.   The WG reviewed progress towards the development of the RCP concept, being developed by a Subgroup. The SG had decided only to develop the RCP concept for known applications - hoping that this would act as guidance for groups with expertise in other areas, e.g. GNSS, AMCP etc. The dialogue must involve the human end user where a human end user would be expected to provide the reply. The WG should learn form the RNP concept, and remember the problems of evaluation, validation and certification - the system should be certifiable.

8.   The next meeting of WG B will be held in Adelaide from 8 - 12 February 1999.

M J Asbury
UK ADSP Member
23 October 1998