

**AERONAUTICAL TELECOMMUNICATION NETWORK PANEL (ATNP)  
Working Group 3 -- Applications and Upper Layers  
Fourth Meeting**

**(Banff, Alberta, Canada, 16-20 October 1995)**

**I. Introduction**

The fourth meeting of ATNP Working Group 3 (WG3) took place on 16 to 20 October 1995 in Banff, Alberta, Canada, hosted by Transport Canada.

Mr. Ron Jones, US Member and Rapporteur of WG3, welcomed the participants. After introductions by the WG3 participants the list of working papers was prepared.

A list of participants is presented in Attachment 1. The list of papers with presenter and agenda item is presented in Attachment 3.

**II. Minutes of the Meeting**

**1. Agenda Item 1: Approval of the Agenda**

The proposed agenda (WP 4-1) was reviewed by the working group and accepted. The Working Group accepted a proposal to review the agenda 7 items (i.e., Administrative Issues) during the first day of the meeting rather than confirming these items near the end of the meeting.

**2. Review and Approve Reports of the second (Toulouse) and the third (Fairfax) meetings of WG3.**

The reports of the second and third meetings of WG3 were reviewed. Both meeting reports were approved by WG3 with any changes.

**2.1 Review issues and action items from the previous WG3 meetings**

The principal action items from the previous working group meetings related to tasking to the WG3 subgroups for the development of draft SARPs and Guidance Material. The status of this tasking was to be reported under the related agenda item.

**2.2 Review proposed structure for CNS/ATM-1 Package SARPs**

The WG3 Rapporteur pointed out the structure for the CNS/ATM SARPs was proposed at the Joint WG2/WG3 meeting in May 1995 and shown in Attachment 4 to the WG3 report from May 1995. He also informed WG3 that WG1, at its third meeting held 9-12 October 1995, accepted the general structure for the SARPs. He also reported that WG1 has formed a drafting group to develop the "Introduction and System Level Requirements for CNS/ATM-1 Package" materials. It was also reported that the Joint Working Group Meeting held 13 October, 1995 had changed the term for each division of the Package-1 SARPs from "Parts" to "Sub-Volumes".

### **3. Review inputs received from other ATNP working groups and other ICAO bodies**

Flimsy 5 from the Joint WG2/WG3 meeting held in May 1995 (Fairfax, Virginia) was a request to the ADSP for operational requirements for the CNS/ATM-2 Package. The WG3 Rapporteur reported that no response had been received. He also reported that based on informal coordination with members of the ADSP, it appears that the ADSP focus is on 'end-state' operational requirements and there is currently no activity to specifically define the operational requirements for Package-2. He also reported that as the ATNP WG1/2/3 rapporteurs will attempt to hold a meeting with the ADSP WG rapporteurs in late November to address the above issue.

Mr. Jones, as the U.S. panel member, presented WP4-4, titled ATN Systems Inc. Position on CNS/ATM-1 Package. The WP conveyed (by way of a copy of letter from ATN Systems Inc.) the consensus position of the eleven U.S. air carriers that own ATN Systems Inc. The position stated that relative to the ATNP working group meetings in Banff; "...it is imperative that no new requirements are introduced at the meetings and the meeting conclude with no unresolved issues which affect the technical implementation of the CNS/ATM-1 Package." WG3 noted this position.

### **4. ATN Upper Layer SARPs**

#### **4.1 Report from SG3**

Mr. Steve Van Trees presented the report of SG3 on the progress made on drafting of the upper layer architecture SARPs. He reported that SG3 had held one meeting in August 1995 and followed by substantial e-mail and telephone coordination among the ULA editors. He reported that naming and addressing is still an open issue that needs to be addressed by WG3. He also reported that user data in D-U-ABORT, is not allowed in ITU-T/ISO upper layer efficiency enhancements but is required by the air-ground application SARPs. He indicated he will try to get the needed changes into the standards activities as U.S. comments. He reported that Chapter 3 of the ULA draft SARPs was reworked over the last two weeks to document recently agreed, by the SG3 editors, changes to the 'control function.'. One of the issues that was addressed by the ULA editors was an inconsistency in the ACSE second edition standard and the efficiency enhancements in the upper layers (i.e., fast byte). The solution reflected in the current draft ULA SARPs was to use the adopt the mapping for the A-release defined for Edition 3 of ACSE. This greatly simplified the ULA Control Function. Chapter 7 of the draft ULA SARPs describes the confirmed data service element (CDSE). This is not currently required by any of the Package-1 applications and unless such a requirement emerges this material will be relegated to Package-2 material. Additional work would be required on the CDSE to fully resolve some outstanding issues.

Mr. Van Trees reported on the progress that has been made with the ITU-T and ISO forums to progress the standards that are needed to support the Package-1 and Package-2 ULA requirement that had been identified at previous WG3 meetings (dating back to the first meeting in Oct. 1994). The schedule for the progressing of the efficiency enhancements and ACSE revisions that had been envisioned at earlier WG3 meeting is still valid and all of the milestones for ITU-T and ISO actions and approvals postulated to occur by the end of 1995 have in fact been met. It was noted that during the development of the ULA SARPs a problem was discovered in the draft ISO

ACSE 2nd edition standard when used in conjunction with PER coding. The necessary changes to correct the problem (i.e., the addition of extensibility marker) was put into the ITU-T standard for ACSE.

## **4.2 Review of draft ULA SARPs material**

The working group reviewed the draft ULA on a chapter-by-chapter basis. The main issues identified with the draft ULA SARPs was parts of the material was written in the form of a service description rather in the form of a SARPs requirement. In addition the draft SARPs contained material that relates only to Package-2 requirements. These two problems were most apparent in chapter 3 of the draft SARPs. This material had been prepared with the two weeks before the WG3 meeting the editor noted additional editing would be needed. A editing group convened during the week of the WG3 meeting and provided significant revisions to the draft ULA SARPs to better present the material in a SARPs format consistent with the Package-1 requirements. This revised ULA SARPs was reported back to WG3 for further review. The remaining defect with the ULA SARPs noted was the lack of support for user data in a D-U-Abort. The air-ground application SARPs assume that user data can be provided with a D-U-Abort but the upper layer efficiency enhancements do not allow for this. Mr. Van Trees indicated that the U.S. will submitted a defect report against the ITU-T standards (and the equivalent ISO draft standards) in an attempt to resolve this issue. WG3 determined with with the revisions made to the draft SARPs by the end of the meeting the draft SARPs should be considered a baseline document and should be consider stable and suitable as a basis for validation activities.

## **4.3 ULA SARPs validation approach and plans**

The working papers on this subject also covered the application SARPs validation and they were taken up under agenda item 6.3.

## **4.4 Tasking for SG3**

The prinipal tasking to WG3 was already covered the the term of reference for the subgroup. Specific task for the next WG3 meeting was the development of the initial draft of the Package-1 ULA guidance material, validation documentation (e.g., data base) and proposed changes identified against the baseline ULA SARPs.

Mr. Van Tree presented WP4-18 on the subject of ATN naming and addressing. The paper proposed that SG3 could serve as the registration authority for the appliation names and WG2 as the registration authority of the NSAPs. WG3 requested that the WG2 and WG3 rapporteurs raise the issue to the ANC for the need for ICAO to ultimately identify an office that would assume the responsibilty as the registration authority for the ATN naming and address and serve as a source for providing the directory of ATN addresses. Klass Peter Graff has agreed to serve as the focal point in WG1 for the coordination on the overall naming and addressing plans and issues.

# **5. Ground Application SARPs**

## **5.1 Report from SG1**

Mr. Jean-Yves Piram, chairman of SG1 presented WP4-8 to the working group summarizing the progress, status, plans and issues associated with the SG-1 activities. He reported that SG1 had held two meetings in June and October 1995. He also reported that two drafting groups have been established to progress the SARPs for Message Handling Service (MHS) over the ATN and the SARPs for the Inter-Centre Communications (ICC). He reported that SG1 has produced version 0.2 of the draft SARPs for MHS over the ATN and a version 0.0 of the draft SARPs for ICC. He reported that neither of these draft SARPs are currently ready for a detailed review by WG3, but anticipates they will be mature enough for review at the next WG3 meeting in Feb. 1996. Mr. Piram indicated there were a number of issues where SG1 was requesting inputs from WG3.

## **5.2 Review of draft Ground Application SARPs material**

Mr. Jean Marc Vacher presented WG4-9, a status report on the draft SARPs on Message Handling Services over the ATN (version 0.2) with the draft SARPs itself as an attachment. He reviewed the structure of the draft SARPs and described changes that have been made to the ATN Pass-Through Service (Type A) and the ATS Message Service (Type B). Type A is viewed as the short term solution and Type B as the long-term solution message handling services over the ATN. While the WG did not review the draft SARPs itself, WG3 members were invited to submit comments to the document editor (Mr. Vacher). The drafting group of this SARPs has scheduled meetings 6-10 November 1995 in Paris and 8-12 January 1996 (location in Europe - to be determined).

Mr. Leclerc presented WP4-10 providing the status of the draft SARPs for ICC. He reported that version 0.0 is available on request. SG1 recommended that the structure for the ICC SARPs should be the same as the structure adopted by SG2 for the air-ground application SARPs. WG3 endorsed this recommendation. WP4-10 raised the following issues where SG1 requested WG3 guidance:

- a) endorsement or amendment of the SG1 orientation for the drafting of the I.C.C. SARPs as reported in section 3-4 of WP4-10 and in WP4-8;
- b) provision of the operational concept and requirements for Ground-Ground data exchanges in support of Air-Ground Applications (CM and CPDLC), coming from SG2 or ADSP;
- c) scope of the I.C.C. SARPs, concerning the inclusion of the Flight Planning Service within the set of operational services supported by the I.C.C. SARPs.

The WG3 conclusions on each of these items were as follows:

- a) It was the WG3 consensus that I.C.C. SARPs should focus, in terms of message format, on the exchange of ASN.1 structured messages using PER encoding, using the message descriptions provided in the ADSP documentation.
- b) It was agreed that a definition is needed for the overall concept within which Ground-Ground data exchanges in support of Air-Ground Applications fall.

It was further agreed that a group of SG2 and SG1 participants will draft a flimsy setting the scene for this operational concept.

- c) As the I.C.C. drafting group will hold its first meeting in Montreal overlapping with an ADSP meeting, it was agreed that a decision should be made on the basis of a co-ordination with ADSP to be performed using this opportunity.

It was initially proposed to draft a WG3 flimsy to ADSP, requesting information on the status of Operational Requirements for the Flight Planning Service. SG1 WP/25 (Operational Framework for Inter-Centre Communications for CNS/ATM-1 Package) with attached to the flimsy. This WP had been informally co-ordinated with ADSP WG B members in Toulouse (March 1995) and had then been presented to and endorsed by WG3.

*Note: Drafting of such flimsy was superseded following an informal co-ordination meeting which took place outside the main WG3 meeting between M. Asbury, S.B. Pearce (both ADSP members), J.-Y. Piram and C. Leclerc (WG3/SG1). It was confirmed that flight planning messages have been removed from the AIDC message set as flight planning notification is no more considered to be ATS interfacility data communication (ref. Report on the Joint meeting of Working Group A and Working Group B of the ADS Panel Toulouse, 21 November to 2 December 1994).*

The ICC drafting group will meet 20-24 November in Montreal and 8-12 January in North America (date tentative).

### **5.3 Ground Application SARPs validation approach and plans**

The approach for the validation of the ground application SARPs was discussed. The discussion also included an number of general issues applicable to all of the sections for the Package-1 SARPs. Some WG3 members felt that the SARPs does not require the same level of formal data base tracking for requirements versus validation results as envisioned for other section of the SARPs. Since this area of the SARPs uses to a large extend widely used, commercially available products, only the ATN unique areas of the SARPs require detailed valiation testing. The proposal was to used inoperability testing between two independent implementation as the means of demonstrating the validity of the SARPs. Some member of WG3 questioned the adequacy of this approach. Mr. Piram agreed to prepare a Flimsy to describe the proposed approach to the validation of the SARPs for MHS over the ATN.

*Note: subsequently a joint breakout group of WG2 and WG3 members held a meeting on the subject of validation and a flimsy was prepared by WG2 reflecting an overall approach to CNS/ATM-1 Validation. (see section 6.3 for details)*

### **5.4 Tasking for SG1**

The tasking to SG1 was focused on the preparation of version 1 of both the MHS over the ATN and the ICC SARPs for review by WG3 at its next meeting in Feb. 1996 based on the conclusions described in section 5.2 above.

## **6. Air-Ground Application SARPs**

### **6.1 Report from SG2**

Mr. M. Asbury, chairman of SG2, presented the report of SG2 (WP4-6). Mr. Asbury began by acknowledging the hard work of the editors of the 4 parts of the draft air-ground (a-g) application SARPs. Namely, Jane Hamelink, Tim Maude and Frederic Picard as well as Stephen Pearce who was a major contributor to the drafting efforts. The draft a-g application SARPs assume that voice backup will always be available and concluded that it is not practical for the Package-1 a-g applications to all possible events. SG2 has paid special attention to supporting the use of version numbers to provide backward compatibility as future versions are standardized and implemented. This is necessary since not all aircraft and ground ATS automation systems will evolve to the next version at the same time. The draft a-g application SARPs is organized into 4 parts with each part specifying the requirements for one of the four initial a-g applications (CPDLC, CMA, ADS and FIS). Also a Part 0 is proposed to collect the material common to all of the a-g applications into a single introductory part of the a-g application SARPs.

While drafting the a-g application SARPs, SG2 has attempted to avoid specifying anything which would influence user implementations. Also many of the operational timers are defined but are not yet quantified. Each draft SARPs is organized into 7 sections and include the reference back to the source of the operational requirements for the specific application (generally ADSP generated material). Mr. Asbury estimated that the material is more than 95% complete and further coordination with the ADS Panel will be required to resolve a few outstanding issues. Coordination with the ADSP working group B is planned to occur at their working group meeting in November 1995.

Mr. Asbury presented an overview of the status of each of the four draft a-g application SARPs and recommended (section 10 of WP4-6):

- a) ..that the WG reviews the proposed draft material prepared by the SG, and releases it for initial validation, comment and action as required by the interested parties.
- b) ..that the WG approves the future programme of the Air Ground Subgroup, for the continued support of the a-g SARPs

These recommendations were subsequently approved by WG3.

### **6.2 Review of draft Air-Ground Application SARPs material**

Mr. Asbury with support from Ms. Hamelink and Mr. Picard (two of the a-g SARPs editors) presented the draft a-g application SARPs. Each of the draft SARPs is organized into a 7 part structure as follows:

1. Application Overview
2. General Requirements
3. The Abstract Service
4. Formal Definitions of Messages
5. Protocol Definition
6. Communication Requirements
7. User Requirements

A general comment applicable to all four draft SARPs was sections 1 through 3 contain material that is largely guidance and/or explanatory notes while some of the material in section 3 needs to be reworked to define the function requirements in the form of SARPs.

A modest number of clarifications and specific needed minor changes identified as a result of the WG3 review. There are a few additional inputs needed from ADS Panel in order to finalize certain of the SARP requirements, such as the range of parameter, the appropriate values for operational timer and the need for both English and Metric unit for certain of the parameters.

After the review of the nearly 500 pages of draft a-g application SARP material (time did not permit a very detailed review of the detailed technical requirements), WG3 determined that the material was adequately mature to baseline as version 1 of the draft a-g application SARP.

### **6.3 Air-Ground Application SARP validation approach and plans**

Flimsy 12 for WG2 was reviewed by WG3. This flimsy was generated as the result of an off-line meeting between a number of WG2 and WG3 members. It proposed an approach for validation of the CNS/ATM-1 Package SARP. This approach include the following steps:

- a) Create a validation database tracing requirements at the level necessary to achieve the validation objective
- b) define validation objective and means
- c) define requirements for validation tools
- d) validate exercise specification to meet objectives
- e) conduct validation exercise
- f) perform analysis and report results

The flimsy also proposed that system level requirements be included in Sub-Volume of the package-1 SARP and these system requirement also be subject to validation (WG1 responsibility). WG2 and WG3 should identify the relationships of lower level SARP to these high-level system requirements and validate those relationships.

### **6.4 Tasking for SG2**

SG2 was tasked with coordinating with working group B of the ADSP to resolve the few outstanding issues needed to finalize the air ground application SARPs requirements. Furthermore SG2 was tasked with drafting a version 1.1 of the SARPs for review at the next WG3 meeting in Feb. 1996. Comments on the current version 1.0 were requested to be submitted to the applicable editor by 15 Dec. 1995. SG3 plans to hold a meeting in early January to prepare the version 1.1 of the document and distribute this updated version to WG3 members in advance of the WG3 meeting in Feb. 1996.

## **7. Administrative Issues**

### **7.1 Confirm Chairman of SG2 and SG3**

The Rapporteur informed the working group that Mr. Murphy and Mr. Overgaauw would no longer be in a position to serve as the chairman of subgroup 2 and subgroup 3 respectively. The working group recognized the outstanding contributions of Mr. Murphy and Mr. Overgaaw progressing the working program of WG3. The meeting approved Mr. Mike Asbury (U.K.) as the new chairman of SG2 and Mr. Steve Van Trees (U.S.) as the new chairman of SG3.

### **7.2 Discuss need for an additional WG3 meeting in the April 1996 timeframe for detailed SARPs review**

As previous reported at the third meeting of WG3, the proposed SARPs and Guidance Material will need to be submitted to ICAO for translation no later than June 1996. However earlier submission would increase the probability the materials will be translated by the proposed November 1996 date for the ATNP/2 meeting.

The Rapporteur requested the meeting consider adding a WG3 meeting in April 1996, of two weeks duration, to permit a final review of the proposed SARPs material prior to submission to ICAO. The meeting supported such a meeting and requested that all comments against the draft SARPs and Guidance Material be submitted in writing 4 weeks in advance of the meeting.

The need for an additional meeting of WG3 in September was discussed. This meeting focus on finalizing the validation report for submission to ATNP/2. It was suggested that the validation against certain areas in the SARPs will not be completed before Munich (June) and the proposed meeting in Sept. 1996 would allow more comprehensive validation results to be reported to ATNP/s. The meeting agreed to review the need for such a meeting at the next meeting of WG3 in Feb. 1996.

### **7.3 Date and location of next WG3 meeting**

The scope of the planned fifth meeting of WG3 in Feb. 1996 was discussed. The meeting concluded the focus of the fifth meeting of WG3 should be on specific technical issues (should not involve large architectural changes), review progress on validation activities and review the initial drafts of the Package-1 guidance material. Also the SARPs for ICC and MHS over the ATN are expected to be mature enough for a detailed review.



The meeting developed a flimsy (Attachment 4) to propose a modification of the schedule for the next WG meetings that was discussed at the Joint Working Group meeting of 13 October, 1995. This flimsy was coordinated with WG2 and the WG1 Rapporteur. The meeting dates finally selected for the WG3 meeting are 6-14 Feb. 1996 in South Brisbane, Australia.

The date for subsequent meeting of WG3 will be 15-26 April 15-26, 1996. The meeting location will be TBD..

The final of the currently scheduled meeting of WG3 will be held in Munich, Germany 24-28 June, 1996.

As noted above, the meeting recognized the potential need for an additional meeting in the September 1996 time frame.

As a working arrangement for future meetings of WG3 is proposed changes against Draft SARPs should be submitted to the responsible WG3 subgroup, and the subgroups should track changes against the baseline SARPs. The WG3 consensus was any comments/defects against the baseline SARPs must be submitted to the responsible subgroup. Each subgroup should have a central repository comments/defects/resolutions against the SARPs. This repository should be available to WG3 members so they can retrieve/view them. For those without electronic access, a high level list of defects should be available.

## **8. Any other business**

## ATNP WG3 - Fourth Meeting

### Draft Agenda

October 16-20, 1995

Meeting Hours: 0900 until 1700

Monday, 16 Oct.

1. Approval of the Agenda
2. Review and Approve Reports of the second (Toulouse) and the third (Fair Oaks) meetings of WG3
  - 2.1 Review issues and action items from previous WG3 meetings
  - 2.2 Review proposed structure for CNS/ATM-1 Package SARPs
3. Review inputs received from other ATNP working groups and other ICAO bodies
4. ATN Upper Layer SARPs
  - 4.1 Report from SG3
  - 4.2 (Begin) Review of draft ULA SARPs material

Tuesday, 17 Oct.

- 4.2 (Conclude) review of draft ULA SARPs material
- 4.3 ULA SARPs validation approach and plans
- 4.4 Tasking for SG3
5. Ground Application SARPs
  - 5.1 Report from SG1
  - 5.2 (Begin) Review of draft Ground Application SARPs material

Wednesday, 18 Oct.

- 5.2 (Conclude) Review of draft Ground Application SARPs material
- 5.3 Ground Application SARPs validation approach and plans
- 5.4 Tasking for SG1

Thursday, 19 Oct.

6. Air-Ground Application SARPs
  - 6.1 Report from SG2
  - 6.2 (Begin) Review of draft Air-Ground Application SARPs material

Friday, 20 Oct.

- 6.2 (Conclude) Review of draft Air-Ground Application SARPs material
- 6.3 Air-Ground Application SARPs validation approach and plans
- 6.4 Tasking for SG2
7. Administrative Issues
  - 7.1 Confirm Chairman of SG2 and SG3
  - 7.2 Discuss need for an additional WG3 meeting in the April 1996 timeframe for detailed SARPs review
  - 7.3 Date and location of next WG3 meeting
8. Any other business

## ATTACHMENT B

WG3 - Fourth Meeting Attendance List  
Banff, Alberta, Canada 16-20 October 1995

|                       |   |   |                                    |
|-----------------------|---|---|------------------------------------|
| Anderson, Gregg       | FAA/Air traffic requirement services                | 800 Independence Ave SW<br>Washington, DC 20591 USA                       | 202-358-5042<br>202-358-5092       |
| Asbury, Michael       | UK NATS   | Room T804b CAA House<br>45-59 Kingsway,<br>London WC2B 6TE UK             | 44-171-832-5472<br>44-171-832-5562 |
| Bauman, Annette       | Satcom - FAA  | 800 Independence Ave SW<br>Washington, DC 20591 USA                       | 202-358-5086<br>202-358-5092       |
| Bigelow, Michael      | ARINC Fellow  | MS 6-2107, 2551 Riva Road<br>Annapolis, MD 21401 USA                      | (410) 266-4378<br>(410) 266-4499   |
| Brangier, Francis     | Thomson Radar Australia, Corp. PTY Limited          | P.O. Box E7<br>Queen Victoria Terrace ACT 2601<br>Australia               | 61-6-273-3266<br>61-6-273-1697     |
| Boan, Linda           | CAASD - FAA   | 7525 Colshire Drive<br>McLean, Virginia, USA                              | 703-883-7276<br>703-883-1330       |
| Burgemeister, Alvin   | Avionics Engineer, Boeing Commercial Airplane Group | M/S 9U-EC, P.O. Box 3707<br>Seattle, WA 98124-2207 USA                    | (206) 237-7539<br>(206) 234-8501   |
| Camus, Paul           | Aerospatiale  | Teuchos 20 chemin Laporte 31-300<br>Toulouse, FRANCE                      | 33-61-30-9046<br>33-61-30-9033     |
| Castro, Luiz          | DEPV - GEIV   | Aeroporto Santos Dumont 4o Andar<br>Rio de Janeiro-RJ CEP 20021<br>BRAZIL | 55-21-212-5425<br>55-21-212-5420   |
| Chiawarcheep, Sukluer | Executive Engineer, AEROTHAI                        | 102 Ngamduplee, Tungmahamek<br>Sathorn, Bangkok, THAILAND                 | (662) 285-9150<br>(662) 285-9175   |
| Clark, Kenneth        | FAA HQ AND-310                                      | 800 Independence Ave SW<br>Washington DC 20591 USA                        | 202-358-5068<br>202-358-5092       |
| Cole, Tom             | Transport Canada                                    | 280 Hunt Club Rd<br>Ottawa, Ont., CANADA<br>K1A 0N8                       | 613-941-7158<br>613-990-9655       |
| Dennis, Brian         | NATS DNS CAA  | K326 CAA House 45-59 Kingsway<br>London WC2B 6TE UK                       | 44-171-832-5171<br>44-171-832-5464 |
| Desjardins, Claude    | AANFVD<br>Transport Canada                          | Place de Ville, Ottawa, Ontario<br>CANADA K1A 0N8                         | (613) 957-6354<br>(613) 957-6863   |
| Dimock, Norman        | Transport Canada                                    | Place de Ville Tower C AANFDD,<br>Ottawa, CANADA K1A 0N8                  | 613-993-4490<br>613-952-1053       |
| Edem, Efifiom         | SITA  | 93 Rue de la Republique<br>92904 Paris-la-defense FRANCE                  | 33-1-4641-1370<br>33-1-4641-1594   |
| Esser, René           | NLR representing RLD                                | Anthony Fokkerweg 2 NL-1059 CM<br>Amsterdam, THE NETHERLANDS              | 31-20-511-3736<br>31-20-511-3210   |
| Finnen, Brian         | Comm. Req. Specialist<br>transport Canada           | AANEEE<br>Place de Ville<br>Ottawa, Ont. K1A 0N8 CANADA                   | (613) 990-3971                     |
| Gondou, Yoshiyuki     | OKI Electric Industry                               | 16-8, Chuou 1-chome, Warabi-shi<br>Saitama Pref, 335, JAPAN               | 81-48-431-6383<br>81-48-431-9116   |

|  |                        |                               |  |                                     |
|--|------------------------|-------------------------------|--|-------------------------------------|
|  | Gosselin, Benoît       | Transport Canada<br>AANFVC    | Place de Ville, Ottawa, Ontario<br>CANADA K1A 0N8                        | (613) 957-7773<br>(613) 957-6862    |
|  | Hamelink, jane         | FAA/Adsystem                  | 8401 Colesville Rd.<br>Silver Spring, MD 20910 USA                       | 1-301-589-3434<br>1-301-589-9854    |
|  | Hennig, Paul           | United/ IATA                  | United Airlines, WHQKO<br>1200 Algonquin Road<br>Elk Grove, IL 60007 USA | 1-708-952-4312<br>1-708-952-4477    |
|  | Jampathom, Bhumisathit | Senior VP<br>AEROTHAI         | 102 Ngamduplee Tung Mahamek<br>Bangkok 10120 GPO 535<br>THAILAND         | (662)286-0092<br>(662) 287-3451     |
|  | Jones, Ron             | SATCOM                        | 800 Independence Ave SW , AND-310<br>Washington DC 20591 USA             | (202) 358-5030<br>(202) 358-5092    |
|  | Kavanaugh, Michael     | FAA                           | 800 Independence Ave SW Aop-<br>600/Rm 731<br>Washington DC 20591 USA    | (202) 267-7855<br>(202) 267-5543    |
|  | Komine, Satoshi        | NEC Corp.                     | 29.23, SHIBA 5-Chome, Minato-Ku,<br>Tokyo 108, JAPAN                     | 81-3-3456-7742<br>81-3-3456-7747    |
|  | Koopman, Egon          | DFS Germany                   | Kaiserleistrasse 29-53 D-63067<br>Offenbach, GERMANY                     | 49-69-8054-2430<br>49-69-8054-2495  |
|  | Kraft, Tom             | FAA/ANM-107K                  | 1601 Lind Ave. SW<br>Renton, WA 98055-4056 USA                           | 206-227-2129<br>206-227-1182        |
|  | Leclerc, Claude        | Eurocontrol<br>Division DED.3 | Rue de la Fussé 96 B--1030<br>Brussels, BELGIUM                          | (32)-2-729-3355<br>(32)-2-729-9086  |
|  | Lu, Mark               | Transport Canada              | Place deVille, Ottawa, Ontario,<br>CANADA K1A 0N8                        | (613) 957-7776<br>(613) 957-6862    |
|  | Marsh, Owen            | Airservices Australia         | 25 Constitution Ave., GPO Box 367<br>Canberra, ACT, AUSTRALIA 2601       | 61-6-268-4202<br>61-6-268-4099      |
|  | Masaharu, Akimoto      | JCAB                          | 2-1-3 Kasumigaseki Chiyoda-ku<br>Tokyo, 100, JAPAN                       | 81-3-3580-7566<br>81-3-3581-5849    |
|  | Mcparland, Thomas      | BCI / FAA -ACT 350            | FAA Technical Center Atlantic City<br>Airport NJ 08405 USA               | 609-485-5929<br>609-485-5603        |
|  | Millot, Luc            | SITA                          | 18 Rue Paul Lafargue<br>92904 Paris - la defense 10<br>FRANCE            | 33-1-46-41-1056<br>33-1-46- 41-1978 |
|  | Mizoguchi, Tetuo       | Mitsubishi Electric           | 325 Kamimachiya, Kamakura<br>Kanagawa, JAPAN                             | 81-467-43-8231<br>81-467-43-1573    |
|  | Moulton, James         | NMSI -FAA                     | 5 Rutledge Court Sterling, VA 20165<br>USA                               | 703-430-2668<br>703-430-5932        |
|  | Nicholas, David C      | Rockwell                      | 400 Collins Rd NE Cedar Rapids IA<br>MS124-300 USA                       | 319-395-2796                        |
|  | Okle, Manfred          | Dornier GmbH VIC 731          | 88039 Friedrichshafen , GERMANY  | 49-7545-8-5600<br>49-7545-8-3006    |
|  | Pearce, Stephen        | Airservices Australia         | 25 Constitution GPO Box 367<br>Canberra ACT AUSTRALIA 2601               | 61-6-268-5552<br>61-6-268-4099      |
|  | Picard, Frédéric       | CENA DGAC                     | 7 bd Edouard Belin BP4005<br>31055 Toulouse Cedex FRANCE                 | 33-62-25-95-31<br>33-62-25-95-99    |

|                      |  |   |                                      |
|----------------------|--|---|--------------------------------------|
| Piram, J. Yves       | STMA<br>Chef Subdivision<br>Messagerie Ops           | 1 Ave du Docteur Maurice Gynfogel<br>BP 1084 31035 Toulouse CEDEX<br>FRANCE | 33-1-62-14-54-70<br>33-1-62-14-53-53 |
| Rongthong, Somnuk    | Director, Computer<br>System Programming<br>Aerothai | 102 Ngamduplee, Tungmahamek<br>Sathorn, Bangkok, THAILAND                   | (662) 285-9246<br>(662) 287-3131     |
| Saccone, Greg        | Hughes Canada  | 200-13571 Commerce Pkwy<br>Richmond BC V6V 2J3<br>CANADA                    | 604-231-3080<br>604-278-3469         |
| Snively, Austin      | Systems Engineer<br>American Airlines                | 4000 N Mingo Rd PO Box 582809<br>Tulsa OK 74158-2809 USA                    | (918) 292-4236<br>(918) 292-5066     |
| Traore, Mamadou      | ASECNA   | D/G ASECNA BP 3144<br>Dakar, SENEGAL  | 221-2205-70<br>221-2205-44/23 4654   |
| Vacher, Jean-Marc    | ON - X   | 15 quai de Dion Bouton<br>92800 Puteaux FRANCE                              | 33-1-4099-1414<br>33-1-4099-9958     |
| Valentine, I.R.      | Level 7 Ltd  | Cemtenial Court Easthampstead Rd ,<br>Bracknell, Berkshire RG12 1 YQ.<br>UK | 44-1-344-86-7199<br>44-1-344-86-8442 |
| Van Roosbroek, Danny | Eurocontrol  | Rue de la Fusée, 96<br>1130 Brussels, BELGIUM                               | 32-2-729-34-71<br>32-2-729-90-83     |
| Van Trees, Steve     | FAA/Stel   | 1761 Business Center Drive<br>Reston, VA 22090-5338 USA                     | 1-703-438-8014<br>1-703-438-8112     |
| White, Gene          | VP Network Mgmt Svcs.<br>Inc                         | 1160 Spa Rd . Suite 3A, Annapolis,<br>MD 21403 USA                          | (410) 280-0067<br>(410) 280-0066     |

**LIST OF WORKING PAPERS**

ATNP WG3 - Forth Meeting - Banff, Canada 16-20 October 1996

Revision B

| No   | Agenda Item | Presenter        | Title  |
|------|-------------|------------------|--|
| 4-1  | 1           | R. Jones         | Agenda   |
| 4-2  | 2.1         | WG3              | ATNP WG3 Report Second Meeting (Toulouse 13-17 March 1995)                             |
| 4-3  | 2.1         | WG3              | ATNP WG3 Report Third Meeting (Fairfax 15-19 May 1995)                                 |
| 4-4  | 3           | R. Jones         | ATN Systems Inc. Position on CNS/ATM-1 Package   |
| 4-5  |             |                  | DELETED  |
| 4-6  | 6.1         | M. Asbury        | Report of Subgroup 2 (Including the 4 parts of the air-ground application draft SARPs) |
| 4-7  | 6.1         | M. Asbury        | Stepped Approach for A/G Applications SARPs Validation                                 |
| 4-8  | 5.1         | J. Piram         | SG1 Chairman's Report to WG3   |
| 4-9  | 5.2         | J. Piram         | Draft SARPs on MHS over the ATN  |
| 4-10 | 5.2         | J. Piram         | Status of Draft SARPs on ICC   |
| 4-11 | 4.2         | S. Van Trees     | Draft SARPs for Upper Layer Architecture   |
| 4-12 | 4.1         | S. Van Trees     | ATNP WG3 SG3 (Upper Layer Architecture) - Briefing                                     |
| 4-13 | 6.3         | I. Valentine     | Approach to Validation of CNS/ATM-1 Package SARPs                                      |
| 4-14 | 4.2         | I. Valentine     | Comments on Draft SARPs and Guidance Material for ATN Upper Layers for CNS/ATM-1       |
| 4-15 | 6.3         | D. Van Roosbroek | The SARPs Validation Database  |
| 4-16 | 6.3         | D. Van Roosbroek | Proposed Scenarios for the CNS/ATM-1 Package Draft SARPs Validation                    |
| 4-17 | 6.3         | D. Van Roosbroek | Trials End Systems Project   |
| 4-18 | 4.4         | S. Van Trees     | CNS/ATM-1 Package Registration Authority   |
| 4-19 | 6.2         | M. Akimoto       | Some Additional Functionalities in Ground Context Management Application               |
| 4-20 | 6.2         | S. Van Trees     | The use of ATSC TrafficTypes for CNS/ATM-1 Package                                     |
| 4-21 | 4.2         | J. Moulton       | Naming and Addressing in the Upper Layers  |
| 4-22 | 4.2         | J. Moulton       | Confirmed Data Service Element   |
| 4-23 |             |                  |  |
| 4-24 |             |                  |  |

**Proposed Change to ATNP Working Group Meeting Dates for Jan./Feb. 1996****17 October 1996**

The plans for future ATNP working group meetings were discussed at the JWG meeting in Banff, 13 October 1995. The invitation from Australia was accepted as the location for the next ATNP working group meetings. The dates selected were 29 Jan. - 1 Feb. for WG1, 2 Feb. for JWG and 5-9 Feb. for WG2/3. Subsequently, at the fourth meeting of WG3 in Banff, the proposed schedule for the ATNP working group meetings was discussed and a proposed change was recommended. The proposed revisions were motivated by:

- a) a desire to extend the duration WG3 meeting; and
- b) desire to permit WG3 members to also attend the JWG meeting without having the combined period span two weekends.

The proposal for the revised schedule is:

|                       |    |  |
|-----------------------|----|--|
| 30 Jan. - 1 Feb. 1996 | -- | WG1 (Tuesday through Friday)                   |
| 4 Feb. 1996           | -- | JWG (Monday)                                   |
| 5 Feb. - 14 Feb. 1996 | -- | WG3 (Tues. through Wed. of the following week) |

WG1 and WG2 members are invited to comment on the above proposal.

## The use of ATSC Traffic Types

WG3 has considered the inputs received from WG2 resulting from the meeting in Fairfax, Virginia in May 1995 related to the definition of ATSC traffic types. WG3 endorses the definition of ATSC traffic types by relating each of the proposed types A through H to a desired maximum (95%) transit delay (end-to-end). For CNS/ATM-1 Package, the Internet SARPs will need to specify that a routing policy would be invoked consistent with the specified Traffic Type. The intent of the proposal to specific ATSC Traffic Types in terms of the desired maximum transit delay is not for a BIS to guarantee delivery within the specified deliver time. Rather the intent is to permit a BIS in apply a routing policy that will result in the selection of subnetworks (especially mobile subnetworks) that could be expected to support the desired performance. This would be determined a priori and not on a dynamic basis. In moving beyond package-1 perhaps more intelligent routing decisions could be made if the dynamic performance of the available subnetworks is know to the BIS.

The proposed definition of the ATSC traffic types is:

| <u>ATSC Traffic Type</u> | <u>Desired Maximum (95%) end-to-end<br/>Transit Delay (seconds)</u> |
|--------------------------|---|
| A                        | Reserved  |
| B                        | Reserved  |
| C                        | 13  |
| D                        | 18  |
| E                        | Reserved  |
| F                        | 74  |
| G                        | 95  |
| H                        | Reserved  |



