Preliminary Draft - Request comments only from Subgroup Chairman and SARPs Editors

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

(Brussels, Belgium - 15-26 April 1996)

I.   Introduction

The sixth meeting of ATNP Working Group 3 (WG3) took place on 15-26 April 1996 in Brussels, Belgium, hosted by EUROCONTROL.

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 copy of the meeting agenda is presented in Attachment 1. A list of participants is presented in Attachment 2. A list of working papers with presenter and agenda item is presented in Attachment 3. A list of flimsies is contained in Attachment 4. A list of SARPs editors is presented in Attachment 5.

II.   Minutes of the Meeting

1.   Administrative Items and Approval of the Agenda
1.1   Administrative announcements

Mr.Eike Myenberg, the panel member from EUROCONTROL and the host for the meeting, welcomed the ATNP/WG3 members. Danny Van Roosbroek of EUROCONTROL described the meeting arrangements. Mr. Ron Jones, Rapporteur of WG3 proposed the meeting hours and went over other administrative items.

1.2   Discuss arrangements for Seventh WG3 meeting (June 1996 in Munich)

DEFERRED UNTIL LATER

1.3   Review schedule for ATNP/2 and eighth WG3 meeting

Mr. Jones indicated that the 7-18 October 1996 validation meeting to be hosted by the US will likely be in Daytona Beach, Florida.

Mr. Paydar, the ATNP Secretary, has issued a letter to the ATN Panel members soliciting opinion on presenting the SARPs to ATNP/2 in English only. Mr. Jones reported that the ATNP secretary has indicated that schedule for ATNP/2 may be extended by starting on Monday, 4 November 1996, instead of Tuesday as previously proposed.

1.4   Review Agenda

The proposed agenda (WP6-1, Attachment 1) was reviewed by the working group. The validation discussion and the ICC SARPs agenda items were covered out of original order.

2.   Review and Approve Report of the fifth meeting (Brisbane) of WG3

Mr. Jones, Rapporteur of WG3 presented WP6-2, the WG3-5 (Brisbane) meeting report. The meeting report was approved by WG3 with minor editorial changes and the final document was issued as an outcome of the meeting in Brussels.

2.1   Review issues and action items from previous WG3 meeting

In addition to the tasking to the WG3 subgroups for the continued development of SARPs and GM, the following specific actions resulted from the fifth meeting of WG3:

a) WG3 subgroups are requested to review their draft SARPs and identify any potential system level requirements. The list of such requirements should be provided to Mr. Steve Van Trees or Mr. Tom Kraft (see WG3 mailing list) as soon as possible.

Status: Mr. Asbury provided an updated Sub-Volume 2, Part 0. Mr. Van Trees attended the system level requirements meeting to provide his subgroup's input.

b) The Subgroup chairmen shall produce working papers from WG3 to the ATN Panel describing their SARPs Sub-Volume or major part (i.e., MHS, ICC, ADS, CM, CPDLC, FIS, ULA). These working papers will need to be reviewed and approved by WG3 at the Munich meeting, in June 1996. These working papers will need to be kept to 6 pages maximum length and will need to be submitted to ICAO shortly after the conclusion of the Munich WG3 meeting.

Status: Mr. Jones provided a common outline (Flimsy 6-10) at this meeting for the ATNP/2 description of each SARPs.

c) A question was raised for entries under the ATN Support column on the APRLs; should capitals vs. lower-case characters be used?   The WG3 draft SARPs have consistently used lower-case for the ISO base standard column. Unless an ISO definition differs, we will use upper-case for the ATN Support column. This has not been consistently done in all of the draft SARPs presented to WG3 for this meeting. Mr. Van Trees will check ISO 9646-7 and ISO TR 1000 for guidance and report findings to the WG3 document editors.

Status: ISO 9646-7 uses lower-case letters in all examples. Its acronym list allows use of both cases. The CNS/ATM-1 SARPs will consistently use upper-case characters for both the ISO Status and ATN Requirement entries.

d) Mr. Van Trees had the action to update Flimsy 8 from the fifth meeting of WG3 to reflect the decisions of WG3 and to transmit the flimsy to WG2 for their further action.

Status: The flimsy was updated and submitted electronically to WG2. WG2 have justified their use of the fields of the Security Label, and have also indicated that it is transmitted only once over the air-ground link. WG2 have also indicated that they will accept the Dakar ATSC Class table as a firm user requirement.

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

Tom Kraft led a short introduction of Sub-Volume 1. The Sub-Volume 1 work has greatly progressed since the January 1996 Toulouse meeting of the drafting group. The Sub-Volume 1 SARPs have collected all system requirements. These are the requirements that span multiple Sub-Volumes. The Sub-Volume 1 Guidance Material presents establishment of the safety case of an agreed scenario (e.g., 30/30 in the North Atlantic) by hazard analysis, and thence derivation of performance, integrity, and availability.

The Sub-Volume 1 work affects WG3 deliverables as system requirements adduced in individual Sub-Volumes will be carried forward into Sub-Volume 1. They will be held in hidden text until the their appearance in Sub-Volume 1, version 0.5.

3.1   Review inputs received from the panel Secretary

Mr. Jones reported his recent conversations with Mr. Paydar. Mr. Jones suggested that a small editorial group visit Montreal to work several days with Mr. Paydar on presentation aspects of the SARPs. Mr. Jones indicated that Mr. Paydar believes that ATNP will not have Guidance Material available for ATNP/2

3.2   Review inputs from the ADS Panel

Mr. Mike Asbury recounted the Dakar meeting of the ADSP. The group completed the draft ICAO Manual of ATS Data Link Applications. Work was also done on the necessary amendments to ICAO Annexes and PANSRAC 4444. The documents are being sent forward for translation for the September 1996 ADSP meeting.

ACTION <Mike A. offered to provide text>

Mr. Asbury then led a discussion of changes to the ADSP Manual. ADSP reviewed all the operational requirements. The ATNP CMA is now called Data Link Initiation Capability (DLIC). The ADS section was regarded as mature, and took only minor editorial modification. The group inserted some significant changes to CPDLC. The most significant change was adding a message for 7500 (Unlawful Interference). There were also changes related to Down-Stream Clearances (DSC). The ground-ground aspects of the air-ground CPDLC application were not approved, due to concerns from Eurocontrol, France, and Canada. There is a ground-ground forwarding requirement in ADS, but there is no such bold requirements for CPC.

R. Jones presented WP6-14 on the use of ATSC traffic classes. This WP proposed a position on the use of traffic types (e.g., Operational) and ATSC Traffic Type (e.g., A-J) to select an appropriate communication path. The WP was proposed to be used as the basis of a flimsy from WG3 to WG2. Mr. Pearce and Mr. Asbury discussed the view expressed by the ADSP on the operational use of traffic types as a means of influencing selection of communications paths. Mr. Pearce provided specific comments against WP6-14 related to the specific routing action expected to be taken by an intermediate system when a path valid for traffic type exists, but no path exists that is an exact match by the ATSC Class with that specified in the CLNP packet. The WP indicated that a closest match selection would be made. Mr. Pearce indicated that a lowest cost routing policy would be more appropriate. After a brief discussion, Mr. Jones indicated that he would update the WP to reflect that cost then closest match should be used to select the path under the above conditions. Mr. Van Roosbroek commented that an explanation was needed for what is meant by weak routing policy. It was agreed that this would be included in an update to WP before coordination with WG2.

3.3 Review inputs from other ICAO bodies

There were no other inputs considered than those from the ADSP.

4. Ground Application SARPs

4.1 Report from SG1

Mr. Jean-Yves Piram reported the excellent recent progress of SG1. The group has AMHS SARPs v1.0p (proposed for baseline) , AMHS guidance material, and ICC (AIDC) SARPs, v1.0p (proposed for baseline).

ACTION <JY will provide.>

4.2 Review of draft Ground Application SARPs material

4.2.1 Review of draft AMHS SARPs

Mr. Jean-Marc Vacher reviewed the latest edition of the draft AMHS SARPs. In Australia, he committed to distribute the AMHS document by 22 March 1996, and did distribute on 25 March 1996. This document is labeled First Amended Proposal. There were many Australian editorial changes and few technical changes. All extended AMHS is moved to CNS/ATM-2 SARPs. All of the transport service material has been updated to align with Sub-Volume 5. All ATN naming (including use of ATN AE-qualifiers) and addressing has been updated to align with Sub-Volume 4.

Action: Messrs. Van Trees and Vacher are asked to ensure that UL SARPs v.3.0z and MHS SARPs v1.0z AE-Title assignments are consistent. (Action closed)

The group then reviewed the requirement for message retention period. The Annex 10 statement for 30-day retention of Aeronautical Telecommunication messages was

reviewed. The requirements are generally levied at sender and receiver. The FAA keeps 30-day message logs at switching center.

WP 6-29 was presented by Messrs. Gene White and Jim Moulton. Mr. White presented the AFTN component of the draft SARPs for the MHS over the ATN Pass-Through services (i.e., Type A gateway). Mr. Moulton presented the ATN component of draft SARPs material contained in WP6-29. This WP presented draft material proposed for inclusion into the draft SARPs for AMHS.

Mr. Vacher questioned the draft SARPs lack of use of the dialogue services, as specified in the ULA SARPs, Sub-Volume 4. Mr. Van Roosbroek also indicated that the preservation of the ULA specified in Sub-Volume 4 was preferred. Mr. Moulton indicated that the Pass-Through Control Function could be rewritten in terms of the Dialogue Service. Mr. Van Trees added that his review showed that the Type A ULA work was in complete static conformance with the ATN ULA, and that the rewrite of the Type A ULA was strictly editorial rather than technical in nature.

ACTION -- Mr. Moulton and Mr. Van Trees undertook to rewrite AMHS 3.4.6 (Pass Through Service -- Control Function) in terms of the dialogue service primitives. (Action closed).

Mr. White then presented the AFTN-specific elements of WP6-29

WG3 agreed that the references to base documents in each Sub-Volume shall be made by name (e.g. 'ISO/IEC 8650-1') rather than number (e.g., [417]). The full superseding reference shall be held in Sub-Volume 1.

Mr. Van Trees queried the inclusion of the MHS base references in Sub-Volume 3, Part 1 since the work is based on MHS ISPs. M. Vacher responded that Sub-Volume 3, Part 1 includes both general and detailed references to the base documents, which thus need to be included.

Mr. Valentine questioned the list of items defined for the traffic log. After discussion Mr. Valentine indicated that he would review the list of items to be logged and potentially propose a abbreviated list. This would be submitted to SG1 or the AMHS SARPs editor for consideration in a future update to the AMHS SARPs.

It was indicated that all editor's notes should be removed from the version of the draft SARPs submitted for review at the next WG3 meeting (Munich - June 1996).

A note is to be added to the AMHS SARPs indicating industry addressing schemes apply.

Mr. Van Trees, chairman of SG3, agreed that references will be added in Sub-Volume 4 for the source of the assignment of the fields in the eight character facility indicator (used with the ULA address). The last character is defined by amendment 71 to annex 10 and the paragraph reference will need to be obtained from ICAO as the amendment is not yet published.

The updated AMHS was provided by the end of the WG3 meeting. WG3 agreed to baseline this updated AMHS SARPs as version 1.0z (the baseline version). Defect reports against the v1.0z AMHS SARPs are to be submitted to the document editor (Mr. Vacher) no later than 15 May 1996.

Mr. Moulton presented WP6/6 detailing a NATO/U.S. Dept. of Defense system for an AUTODIN to X.400 gateway. This system is very similar to the Type B AFTN-to-ATN gateway being specified in the AMHS SARPs. Commercial products are available for this NATO system and could be used as a basis for the AMHS SARPs validation. Mr. Van Roosbroek indicated that X.400 products are commercially available and thus the ISP-compliant aspect of the AMHS could also be commercially validated. Mr. Edem pointed out that the AFTN-ATN gateway is then the only non-ISP matter, and is fully specified in the SARPs.

Mr. M. Okle presented Flimsy 6-2 providing comments on WP6-6. The Flimsy concluded that the alternative proposed in WP6-6 does not provide a technical alternative to the AMHS SARPs. Mr. Okle concluded that although the military message format has some initial similarity with the AFTN message format, the content of the gateway specification comprises AFTN-AMHS conversion, and AFTN-specific interface description, and that this is largely independent of the military solution. Mr. Moulton agreed that there are differences, especially in the UA, but that the NATO inclination toward ISPs offered assistance for a short-fuse validation effort.

In response to Mr. Edem's intervention, Mr. Moulton withdrew his suggestion that the AMHS SARPs adopt the NATO solution. Mr. Jones asked that SG1 give consideration to the military work for validation credit.

4.2.2   Review of draft ICC SARPs

M. LeClerc presented the draft ICC SARPs. Substantial drafting efforts took place during the course of the WG3 meeting. The format of the ICC SARPs is consistent with the format of the air-ground applications SARPs. Mr. Stephen Pearce presented the ICC (AIDC) draft SARPs. Mr. Van Roosbroek and Mr. Frederic Picard questioned why the draft SARPs defines it own control function (CF) rather than adopting the dialogue-service based CF in the ULA SARPs. Mr. Pearce and Mr. Van Trees responded that the AIDC SARPs adopts the ATN ULA, and incorporates by reference the Naming Authority, Presentation Context, and Upper Layer APRLs in Sub-Volume 4. The specification of the CF can be realized with the Dialogue Service primitives presented in Sub-Volume 4, and this will be reflected in an AIDC note. The AIDC CF has a requirement for an 'implicit start' that is not considered in the current Sub-Volume 4 CF. It was recalled that the model employed by the AIDC drafters is the ASO template model that was presented in Banff, and approved for SG3 development in CNS/ATM-2 SARPs. WG3 had judged that the model was presented too late to be of use for the air-ground applications, so that the ATN ULA had included a completely constructed CF for air-ground applications rather than use the template. Mr. Van Trees questioned the configuration management of the AIDC CF, since on a component level it must be the same as the Sub-Volume 4 CF. Mr. Van Trees also undertook to reflect the above discussion in the ULA GM.

The relationship of the terms ICC and AIDC was questioned. It was confirmed that ICC is the higher level category and AIDC is a specific example of an ICC application. Other future ICC applications might include for example, an automatic traffic flow management application.

WG3 then discussed the need to standardize applications in terms of complexity, validation effort, and cost. Mr. Burgemeister elaborated the need for an operational concept for overall integration of the system. Mr. Pearce affirmed the need for an operational concept, but emphasized that regional equipage and regional implementations needed to be specifically decided.

ACTION: Mr. Pearce to provide his ops concept paper to WG3.

Mr. Asbury pointed to the difficulty the ADSP had in integrating increasingly complex components (e.g., ADS-B) into a single operational concept. He indicated that he thought that Packages were the correct approach, and that a single global datalink concept was over-ambitious. Mr. Snively indicated that his aircraft were intended to operate world-wide, and he did not see that validation was possible without an operating concept. Mr. Asbury reiterated the difficulty of producing comprehensive and timely operating concepts. WG3 affirmed the need for WG1 to work the ops concept. Mr. Calow indicated that the WWP was also working the high-level ops concept.

4.3   Review draft Ground Application Guidance Material

Mr. Vacher introduced the AMHS draft GM. There was no discussion of the draft material. SG1 will continue with the development of this material for the next WG3 meeting, in June 1996.

4.4   Review plans for Ground Application documentation for CNS/ATM-2 Package

There was no material presented under the agenda item.

5.   ATN Upper Layer SARPs

5.1   Report from SG3

Mr. Van Trees reported on the progress that had been made by SG3 on Sub-Volume 4 SARPs and the related GM. Mr. Van Trees reported that SG3 met in Toulouse and produced a new version of the draft SARPs taking into account defect reports that had been received against the version reviewed at the last WG3 meeting in Brisbane.

Mr. Van Trees reported the work with ISO and ITU-T to progress the upper layer base standards. He indicated that work in these standards bodies is progressing as envisioned at the initial WG3 meeting in October 1994. He reported that two defects had been found in the ITU-T fast byte recommendation. This has been corrected in

parallel in the ISO standards activity and will be picked up by ITU-T later this year. It was indicated that SG3 was seeking WG3 guidance on revising the Sub-Volume 4 SARPs reference from the ITU-T standards to the equivalent ISO standards. The advantage accrued is that the ISO version has corrected two defects reported against the ITU-T version. The ISO version has also added some new features, but these are not specified for use in Sub-Volume 4.

Mr. Van Trees reported that the Sub-Volume 4 GM has been editorially updated since the last WG3 meeting in Brisbane.

Mr. Van Trees reported that draft SARPs material have been progressed for Package 2 to defined a connectionless ULA to work over a connectionless transport service.

5.2   Review of draft ULA SARPs material

Mr. Van Trees, SG3 chairman, introduced WP6-26, WP6-4 and WP6-28. Mr. Tony Kerr, editor of the ULA SARPs, presented WP6-26. This document, version 2.0 final of the draft ULA SARPs, is the version that resulted from the comments coming out the Brisbane WG3 meeting. Since this version simply incorporated the changes already approved by WG3, this version was not reviewed in detail. Mr. Kerr then presented WP6-28 that provides a listing of the SARPs defects that have been identified against the version 2.0. There was further discussion on the use of ISO standards vs. ITU-T standards for the base documents for the upper layer efficiency enhancements. Mr. Kerr proposed to migrate from the ITU-T base standard to the ISO base standard. This change has been included in the proposed version 3.0 of the draft ULA SARPs, WP6-4. This proposal was approved by WG3.

Mr. Kerr presented WP6-4, the proposed version 3.0 of the draft ULA SARPs. He pointed out where the changes had been made from the current baseline (version 2.0) in the proposed SARPs version 3.0. The changes were mainly editorial in nature There were a small number of comments that identified minor defects in the draft SARPs. The document accepted an action item to propose corrections to the draft SARPs to correct the defects. Generally, these were editorial in nature. It was noted that there is an open item with WG2 on the format for passing the security parameter between the ULA and the transport service. This was later closed with no   Mr. Van Trees noted there were a few other items that also needed to be coordinated with WG2. WG3 accepted an offer from Mr. Van Trees to document these issues in a flimsy from WG3 to WG2.

Mr. Van Trees presented flimsy 6-6 on WG3 matters of interest to WG2. This flimsy addressed a number of issues related to technical issues of interest to both working groups. Topics covered by the flimsy included:
  a) internet service description
  b) he security function
  c) DR/CP for traffic type (introduces WG3 WP6-14)
  d) default traffic type
  e) strong/weak QoS
  f) integrity architecture
  g) naming and addressing

h) editorials
i) connectionless communications
j) efficient TP4
k) CNS/ATM-2 planning
l) World-Wide Plan review

5.3   Review of draft ULA Guidance Material

Mr. Van Trees introduced WP6-5, draft upper layer GM. He explained the changes that have been made since the previously version reviewed by WG3 in Brisbane. The organization of the GM has been improved and comments taken in Brisbane have now been incorporated. Mr. Van Trees noted that section 10.5 will need additional development. He also noted that section 10.6 on naming and addressing has been updated to clarify the implementation of the ULA construction of titles and addresses. Is was noted that perhaps this material needs to be captured in the Context Management SARPs   There were a few minor comments. It was pointed out that it appeared that GM was needed on how to assign the SAP selector. After a brief discussion it was concluded this is a local matter and is so indicated in Sub-Volume 5.

5.4   Review plans for ULA documentation for CNS/ATM-2 Package

Mr. Van Trees introduced WP6-25 which provided draft materials believed by SG3 to be appropriate for CNS/ATM-2 Package SARPs and GM. This material relates to ULA enhancements to provide functionality not supported by the Package-1 ULA SARPs. The significant enhancements proposed include:
-   migrating from edition 2 of the ACSE standard to edition 3
-   adding a connectionless ULA service for use over a connectionless transport service
-   definition of an ASO template (i.e., applications development template)
-   support relative Object Identifiers (OIDs) based on ongoing work in ISO
-   support ISO upper layer efficiency enhancements (if not included in Package-1, see above)

The working paper included an action list of work to progress the ULA standards for the Package-2 ULA. It was noted that this list could be the basis for proposing the WG3 ULA related work program items to ATNP/2 for Package-2 related work.

6.   Identify system-level requirements derived from WG3 draft SARPs materials

Mr. Tom Kraft, editor of Sub-Volume 1 presented an overview and the background on the draft Sub-Volume 1. This Sub-Volume provides an introduction of the overall Package 1 SARPs and defines the system-level requirements.
Section 1 provides an introduction to Package 1 SARPs,
Section 2 describes the operational environment,
Section 3 defines the system level requirements,
Section 4 is a list of references for all Sub-Volumes
Section 5 is a glossary provide a definition of terms used in all Sub-Volumes

Mr. Jones described the approach used by the Sub-Volume 1 SARPs drafting group to develop the system level requirements that have been included in Sub-Volume 1. Materials from the ADSP and FAN II/4 were used as the primary sources for operational and institutional requirements. High level requirements extracted from the ATN Manual 2nd edition and the other CNS/ATM-1 Package Sub-Volumes were also reviewed. System level requirements were derived from these sources. It is intended that the highest level of function requirements from Sub-Volumes 2 through 5 will be traceable up to a higher level system requirement.

7.   Baseline Draft Ground Application SARPs (follow-on to Agenda Item 4)

7.1   Review/approve proposed baseline draft AMHS SARPs

The editor of the AHMS

7.2   Review/approve proposed baseline draft ICC SARPs

Mr. Peace reported that discussions subsequent to the initial presentation of the draft ICC SARPs had results in a proposal to reference the ULA SARPs and indicate the level of conformance between the ICC SARPs and the ULA SARPs. However the ICC SARPs would still contain its own definition of the control function, including dialog service. It was noted that the control function defined in Sub-Volume 4 was defined specifically to support the air-ground applications and it was the intent of SG3 (responsible for the ULA SARPs) that other applications would define their own control function, as needed. The approach proposed for the draft ICC SARPs is consistent with this approach.

8.   Package-1 Validation

8.1   Validation approach

Mr. R. Jones presented WP6-15 on proposed WG3 inputs on validation for JWG WP to ATNP/2. This WP provides draft text for a working paper from the ATNP JWG meeting in Munich (June 1996) to ATNP/2. This draft working paper summarizes the approach taken to validation the Package-1 SARPs and proposes ATNP/2 approve the SARPs based on the successful validation of the SARPs. There was some specific comments on the draft text for the JWG WP and the text was updated to reflect the comments.

8.2   Status of validation planning for Sub-Volume 2, 3 and 4

Mr. T. Kerr presented WP6-35 on the ULA validation data base. The current version is consistent with the proposed version 3.0 SARPs submitted the WG3 meeting. Mr.

Kerr plans to update the data base to track the approved version 3.0 of the ULA SARPs coming out of the WG3 meeting.

8.3   Plans of member States and organizations to support validation activities

Mr. Van Roosbroek presented WP 6-17 previding current results of Eurocontrol applicaton SARPs validation activities. The WP described the status of the validation activities for ADS, CM, CPDLC and the ULA. The set of activities described in the WP are: Requirements database, formal modelling, prototype implementation, API specification and interoperability test scenarios. Mr. Van Roosbroek reported that the first two activities have produced significant progress, particularly for the ULA and ADS area of the package 1 SARPs. Furthermore he noted that Eurocontrol expects to award a contract for the prototype implementation. In presenting WP6-17, Mr. Van Roosbroek reported that the development of interoperability test scenarios is currently underway. Mr. T. Kerr provided a detailed report of the validation activities detailed in the WP. This WP served to introduce a number of other WPs (i.e, WP6-16, WP6-18, WP6-19, WP6-20, WP6-22 and WP6-23) submitted by Eurcontrol providing an additional level of detail on the Eurocontrol validation efforts.

WP6-18, WP6-19, WP6-20 and WP6-22 were information papers and were not presented.

Mr. Van Roosebroek introduced WP6-16 and WP6-23. These information papers were briefly presented but were not discussed.

Mr. Van Roosebroek indicated that the Eurocontrol objective is have substantial valiation results by the planned Oct. 1996 meeting of WG3.

Ms. G. Louden presented WP6-30 providing the status and progress of the U.S. upper layers and applications validation effort. Ms. Louden described the progress of Computer Sciences Corp. (CSC) on prototyping the ULA, CM and CPDLC SARPs. She reported that work is just starting at Mitre to prototype the ADS application. She also indicated that the emphasis of the CSC efforts in on the ground version of the CM and CPDLC applications using script-based drivers serving as the airborne applications. She verbally provided a few updates to the material included in the SARPs. She indicated that the starting point for the ULA validation data base was version produced by WG3/SG3. She noted that there are in fact plans to validate FIS SARPs, but the plans for this are not yet final. It was also noted that the validation efforts will incorporate an incremental revision to align with the output of the Munich WG 3 meeting. It was pointed out that certain specific areas of the SARPs are not covered by the current FAA validation efforts. An issue was raised on the validity of the CM validation using a prototype CM that only implements a sub-set of the state table. Mr. Van Trees took an action item to provide additional information at the next WG3 meetingon the U.S. CM prototyping and validation efforts.

8.4   Validation documentation for ATNP/2

A joint WG2/WG3 session was held to coordinate SARPs and valiation documents to be prepared for ATNP/2. The JWG reviewed WG3 WP6-14 proposing a validation WP

from the Munich JWG meeting to ATNP/2. The JWG agreed on the approach presented in the WP and the author (Mr. R. Jones) agreed to make some editorial changes and forward the revised WP to the WG1 Rapporteur.

Mr. S. Van Trees presented WG3 flimsy 6-5 on matters of style. The purpose of the flimsy was to document standard formats for the draft SARPs materials. Some needed corrects to the proposals in the flimsy were agreed and an updated flimsy was subsequently issued. Members of WG2 noted that the Sub-Volume 5 VDB will not show tracabilty all the way down to each "shall" statement but generally to a function that is supported by a collection of shall statements.

Mr. Jones presented WG3 WP6-14 on the use of traffic types. The central issue between the of the ensueing discussion was the use of weak vs. strong routing policies for ground routing of packets with the ATSC traffic classes. The issue was not resolved at the JWG meeting. A small sub-group was formed to review the issue and report back when the working groups later reconvened. WG2 produced a flimsy 13 asking WG3 for clarification of 4 questions. WG3 reviewed this WG3 flimsy and produced Flimsy 6-x to provide the WG3 response. This flimsy indicated Weak Routing policy is perferred resulting in no packets discarded by the internet if any valid ATSC path is available. If user service to be denied, the the use of the application time stamps is the preferred method. ATSC traffic classes are to be mapped to 8 classes with the top 2 reserved and the lower 6 mapped to the 6 slower values from the ADSP and reflected in the draft Sub-Volume 1 version 0.5.

9.   Air-Ground Application SARPs

9.1   Report from SG2

Mr. M. Asbury reported that SG2 held a meeting in mid-March 1996 in London, UK. The intent of the meeting was to progress the SARPs and GM for the air-ground application SARPs. The SG2 members undertook to added the ground-ground forwarding function into the Sub-Volume 2 SARPs in Brisbane. The March SG2 meeting ended up focusing on the further refinement of the SARPs with much of the work on the ground-ground forwarding function. The use of autmatic tagging in the ASN.1 text results in change bars in much of the ASN.1. Comprehensive configuration control information is providing at the beginning of each Part of Sub-Volume 2. ADSP has accepted to use the ATNP WG3 defect reporting form for submitting defects to WG3/SG2. Mr. Asbury reported that Mr. Greg Saccone has taken over from Ms. J. Hamelink as the editor of the Context Management draft SARPs.

Based on the discussion it was noted that the drafts of Sub-Volumes 2 through 5 that are submitted to the Munich WG meetings will need to have the list of references and defintion of terms removed as the consolidated list will appear in Sub-Volume 1. Mr. Asbury will ask SG2 to review Sub-Volume 1 and provide inputs to its editors. Mr. Asbury review general changes that have been made to all of the parts of the Sub-Volume 2 SARPs. Mr. Asbury provided an overview of the functional changes to all of

the parts of the Sub-Volume 2 SARPs. The draft SARPs submitted to the Brussels WG3 meeting are proposed version 3.0 of each of the parts of Sub-Volume 2 SARPs.

There was a discussion of the specification of timers in the Sub-Volume 2 SARPs. Mr. T. Maud explained why SG2 had included a specification of certain timers.

9.2   Review of draft Air-Ground Application SARPs material

Mr. M. Asbury presented WP6-33 on unlawful interference. This paper reflected a request from the ADSP to incorporate message elements in the CPDLC message set relating to Unlawful Interference . It was reported that for Package-2 consideration should be given to supporting a means of indicating unlawful interference as part of ADS. WG3 agreed to added the two proposed new messages to the CPDLC message set. This will have no other impact on the CPDLC draft SARPs.

Mr. Asbury introduced the CM draft SARPs (proposed version 3.0). The configuration sheet was reviewed for the changes from version 2.0 that was approved at the Brisbane WG3 meeting. Mr. Asbury lead the working group page-by-page through the draft SARPs indicating the changes.

Chapter 1 was reviewed and much of the material was removed from Chapter 1 as not being appropriate for SARPs. In the review of Chapter 2 it was suggested that most of this material should be move to Sub-Volume 1 SARPs and perhaps the Sub-Volume 1 GM. The existing text for version numbering and error processing would be retained in chapter 2 of the CM SARPs. The remaining material will be reviewed by the drafting group for Sub-Volume 1 (WG1) for inclusion in the documents being prepared by WG1. There was a discussion of version numbering. It was decided that a given application should be allowed to be updated independently of updates to the overall CNS/ATM-x Package. The was viewed as necessary to allow for defects to be corrected before pubulication of the subsequent CNS/ATM-x SARPs package. It was recognized that GM will need to be developed for the use version numbering to support backwards compatibility.

WG3 agreed that SG2 should move the material to be deleted from chapters 1 and 2 to hidden text for the time being. Also SG2 was requested review the chapter 1 and 2 materials from each part of Sub-Volume 2 and propose to the editors of Sub-Volume 1 text for inclusion in their materials (SARPs, GM and validation report).

There were a few questions raised on chapters 3 and 4 but no needed changes to the draft CM SARPs were identified. (Note - one issue was taken off-line related to table 3-6). In the review of chapter 5 (Protocol definition), potential problems were identified with figures 5-18, 5-19 and 5-20 in chapter 5. The SG2 members agreed to review the figures to determine their correctness. Minor corrections to the state tables (section 5.5), related to the previous issues, were also noted.

The was discussion on how to best express the relationship between the RER parameter (para. 6.2.2.2) and expected residual error rate. It was agreed that the meaning of the RER parameter set to 'Low' implies a RER of 10^{-8} or better. This will need to be reflected in the Sub-Volumes 1, 4 and 5. Mr. Van Trees took an action to include this

in a flimsy 6 to WG2 and Mr. Kraft took an action item to reflect the information in Sub-Volume 1. The actual RER value of 10^{-8} will only be included in Sub-Volume 1. Sub-Volumes 4 and 5 will only reflected that an RER parameter set to 'Low' results in a TP4 checksum being used.

There was an issue raised on the specification CM-air-user response times. After considerable debate on whether this was appropriate for inclusion as a standard, it was decided to revise these to the status of recommendations.

Mr. Van Roosbroek presented WP6-24 raising issues on the requriements and the technical approach for ground-ground forwarding in the air-ground SARPs.

9.3 Review of draft Air-Ground Application Guidance Material

No air-ground guidance material was presented for review. However the ADSP draft manual on ATS data link provides much of the needed guidance.

9.4 Review plans for Air-Ground Application documentation for CNS/ATM-2 Package

10. Action Plan and Planning for ATNP/2

Mr. S. Van Trees presented flimsy 6-5 on Matters of Style. The flimsy proposes specific guidelines for preparing the Package-1 SARPs material. Topics covered included paragraph numbering, Sub-Volume numbering, terminology, references, font type and size, etc. Some additions were identified during the review. Additional information was added to the flimsy on the type for notes and recommendations and numbering of tables and figures. The proposed font for the package-1 SARPs was changed to Times Roman 10 point font.

This was subsequently coordinated with WG2 at a joint session of the WG3 and WG2.

10.1 Report on action plan or resolution of issues/action items from earlier agenda items

ACTION: Each WG3 SARPs editor is requested to review the draft 0.5 Sub-Volume 1 specifically for:
        Glossary contents
        List of references
Editors are requested to take a copy of this material, check off all glossary terms and references that are in fact present in their Sub-Volume, indicate any corrections or needed additons to the glossary or reference list and return this material to Tom Kraft by 15 May 1996 (see address/e-mail/fax information for Tom Kraft in attachment 2).

10.2 Identify specific working papers needed from WG3 for submission to ATNP/2

11.   Subgroup tasking

11.1   Products needed for future WG3 meetings and for ATNP/2

11.2   Schedule for subgroup meetings

12.   Any other business

List of Attachments

ATNP WG3 - Sixth Meeting
AGENDA
15-26 April 1996

1. Administrative Items and Approval of the Agenda
    1.1   Administrative announcements
    1.2   Discuss arrangements for Seventh WG3 meeting (June 1996 in Munich)
    1.3   Review schedule for ATNP/2 and eighth WG3 meeting
    1.4   Review Agenda

2. Review and Approve Report of the fifth meeting (Brisbane) of WG3
    2.1 Review issues and action items from previous WG3 meeting

3. Review inputs received from other ATNP working groups and other ICAO bodies
    3.1 Review inputs received from the panel Secretary
    3.2 Review inputs from the ADS Panel
    3.3 Review inputs from other ICAO bodies

4. Ground Application SARPs
    4.1   Report from SG1
    4.2   Review of draft Ground Application SARPs material
            4.2.1   Review of draft AMHS SARPs
            4.2.2   Review of draft ICC SARPs
    4.3   Review draft Ground Application Guidance Material
    4.4   Review plans for Ground Application documentation for CNS/ATM-2 Package

5. ATN Upper Layer SARPs
    5.1   Report from SG3
    5.2   Review of draft ULA SARPs material
    5.3   Review of draft ULA Guidance Material
    5.4   Review plans for ULA documentation for CNS/ATM-2 Package

6. Identify system-level requirements derived from WG3 draft SARPs materials

7. Baseline Draft Ground Application SARPs (follow-on to Agenda Item 4)

    7.1   Review/approve proposed baseline draft AMHS SARPs
    7.2   Review/approve proposed baseline draft ICC SARPs

8. Package-1 Validation

    8.1   Validation approach
    8.2   Status of validation planning for Sub-Volume 2, 3 and 4
    8.3   Plans of member States and organizations to support validation activities
    8.4   Validation documentation for ATNP/2

9. Air-Ground Application SARPs
    9.1   Report from SG2
    9.2   Review of draft Air-Ground Application SARPs material
    9.3   Review of draft Air-Ground Application Guidance Material
    9.4   Review plans for Air-Ground Application documentation for CNS/ATM-2 Package

10. Action Plan and Planning for ATNP/2
    10.1   Report on action plan or resolution of issues/action items from earlier agenda items
    10.2   Identify specific working papers needed from WG3 for submission to ATNP/2

11. Subgroup tasking
    11.1   Products needed for future WG3 meetings and for ATNP/2
    11.2   Schedule for subgroup meetings

12. Any other business

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LIST OF WORKING PAPERS

ATNP WG3 - Sixth Meeting -Brussels, Belgium 15-26 April 1996

No	Agenda Item	Presenter	Title
6-1	1.4	R. Jones	Agenda
6-2	2	R. Jones	ATNP WG3 Report Fifth Meeting (Brisbane, Feb. 1996)
6-3	5.1	S. Van Trees	Report of SG3
6-4	5.2	A. J. Kerr	Draft CNS/ATM-1 Package ULA SARPs (proposed Ver. 3.0)
6-5	5.3	S. Van Trees	Draft CNS/ATM-1 Package ULA Guidance Material
6-6	4.2.1	J. Moulton	Recommendation on the redirection of the AMHS SARPs
6-7	4.2	J. Piram	Draft CNS/ATM-1 Package ICC SARPs
6-8	4.2	J. Piram	Draft CNS/ATM-1 Package MHS Over the ATN SARPs
6-9	9.1	M. Asbury	Report of SG2
6-10	9.2	M. Asbury	Draft Air/Ground Applications SARPs - Part 1
6-11	9.2	M. Asbury	Draft Air/Ground Applications SARPs - Part 2
6-12	9.2	M. Asbury	Draft Air/Ground Applications SARPs - Part 3
6-13	9.2	M. Asbury	Draft Air/Ground Applications SARPs - Part 4
6-14	3.2	R. Jones	Use of ATSC Traffic Types
6-15	8.4	R. Jones	Proposed WG3 Inputs on Validation for JWG WP to ATNP/2
6-16	8.3	D. Van Roosbroek	Validation Tool Descriptions for ATN Applications
6-17	8.3	D. Van Roosbroek	Current Results of Eurocontrol Application SARPs Validation Activities
6-18	8.3	D. Van Roosbroek	Model of the ADS SARPs
6-19	8.3	D. Van Roosbroek	ADS SARPs simulation scenarios
6-20	8.3	D. Van Roosbroek	Model of the Upper Layer SARPs
6-21	9.2	D. Van Roosbroek	A comparison of the functionality described in ARINC Characteristic 745 and the ADS Draft SARPs
6-22	8.3	D. Van Roosbroek	Eurocontrol requirements database for application SARPs

No	Agenda Item	Presenter	Title	
6-23	8.3	D. Van Roosbroek	APIs for application SARPs Validation	
6-24	9.2	D. Van Roosbroek	Effect of integrating ground forwarding in air-ground ASEs	
6-25	5.4	S. Van Trees	CNS/ATM-2 Package ULA planning	
6-26	5.2	A. J. Kerr	Draft CNS/ATM-1 Package ULA SARPs (Ver. 2.0)	
6-27	4.2	J. Piram	Draft AMHS Guidance Material	
6-28	5.2	A. J. Kerr	ULA Defect Report Register	
6-29	4.2	G.White	Proposed Chapter 3.1.3 of ATS Message Handling Services over the ATN -- Pass-Through Service	
6-30	8.2	G. Louden	Status and Progress on the US Upper Layers and Application Validation Effort	
6-31	9.2	M. Bigelow	Use of Non-Standard Data Units	
6-32	9.2	M. Asbury	Presentation of Wind Velocity	
6-33	9.2	M. Asbury	Unlawful Interference	
6-34	9.2	M. Asbury	Report of ADSP Working Group - Dakar	
6-35	8.2	A.J. Kerr	Validation of the Draft Upper Layer SARPs for CNS/ATM-1 Package	
6-36	9.2	M. Asbury	CPDLC Message Numbers	
6-37	9.2	M. Asbury	Summary of Defect Reports for Draft ADS SARPs for the CNS/ATM-1 Package	
6-38	6	T. Kraft	The Impact of Sub-Volume 1 on Sub-Volumes 2 through 5 SARPs and Guidance Material	
6-39	1.2	R. Jones	Information on the Forthcoming ATNP Working Group Meetings in Munich	
6-40	6	T. Kraft	CNS/ATM-1 Package Sub-Volume 1, v0.4	

Flimsy No	Agenda Item	Presenter	Title
6-1	4.2	T. Calow	Comments on Draft Ground Application SARPs
6-2	4.2	M. Okle	Initial Comments on WP6-6 "Redirection of ground application SARPs
6-3	4.2	I. Valentine	Logging requirements for AMHS SARPs
6-4	AOB	P. Camus	Relationship between System Requirements, ATS, and Operational Benefits
6-5	10	S. VanTrees	Matters of Style
6-6	various	S. Van Trees	WG3 Matters of Interest to WG2
6-7	3	B. Gosselin	WG3 Inputs and recommendations to the WG1 draftting group
6-8		S. Van Trees	WG2 Update
6-9		C. LeClerc	AIDC ULA
6-10		R. Jones	MUC Summary Style
6-11	4.2	J-M Vacher	Changes from WP6-8 to WP6-8A (AMHS Baseline)
6-12		D. Van Roosbroek	6-bit Encoding

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