ATNP WG3
WP 6-2A

Aeronautical Telecommunication Network Panel (ATNP)
Applications and Upper Layer Work Group (WG3)
Sixth Meeting
Brussels, Belgium
15-26 April 1996

Meeting Report from the Fifth Meeting of ATNP WG3

Presented by the WG3 Rapporteur

Attached is the final meeting report from the fifth meeting of ATNP WG3.

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

(South Brisbane, Queensland, Australia, 5-14 February 1996)

I. Introduction

The fifth meeting of ATNP Working Group 3 (WG3) took place on 5 to 14 February 1996 in South Brisbane, Queensland, Australia, hosted by AirServices Australia.

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.

II. Minutes of the Meeting

1. Agenda Item 1: Administrative Items and Approval of the Agenda

1.1 Administrative announcements

Mr. Owen Marsh, the panel member from Australia and the host for the meeting 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 Sixth WG3 meeting (April 1996 in Brussels)

Danny Van Roosbroek presented paper WP5-24 on arrangements for the sixth WG3 meeting in Brussels, to be held 15-26 April 1996. A block of rooms have been reserved by Eurocontrol at the Royal Crown Hotel, Rue Royale 250, B-1210 Brussels, Telephone +32 2 220 66 11. Working group members are requested to make hotel reservations by 8 March 1996. Eurocontrol will provide ground transportation from the Hotel in downtown Brussels to the Eurocontrol headquarters building. Tentative arrangement will for the bus to depart from the hotel at 0815 each morning and depart from Eurocontrol at 1715 to return working group members to the hotel.

1.3 Review Agenda

The proposed agenda (WP5-1, Attachment 1) was reviewed by the working group. It was decided to revise the schedule associated with the agenda based on group travel plans. It was agreed to review the draft SARPs of all three subgroups as the first priority, cover validation issues at the end of the first

week, then to review any remaining CNS/ATM-1 Package SARPs materials, CNS/ATM-2 Package topics and guidance material topics during the second week.

2. Review and Approve Report of the fourth (Banff) meeting of WG3.

Mr. Jones, Rapporteur of WG3 presented WP5-2, the Banff meeting report. The report of the fourth meeting of WG3 was reviewed. The meeting report was approved by WG3 with minor editorial changes and the final document was issued as an outcome of the meeting in South Brisbane. Mr. Asbury also requested that the SARPs editors' list be appended to future meeting reports.

2.1 Review issues and action items from the previous WG3 meetings

The action items from the previous working group meeting were incorporated into their respective agenda items. Generally the action items were actions placed on the subgroups, the status of which were to be reviewed during the course of the South Brisbane meeting.

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

3.1 Review inputs/results from the WG1 meeting

Tom Calow briefed WG1 issues. WG1 is responsible for system-level requirements and issues, including planning for the ATNP/2 meeting. Mr. Calow presented the State letter which had been issued by ICAO indicating the ATNP/2 agenda. Mr. Calow then briefed the status of the products of the WG1: the World Wide Plan (WWP), the updated Lexicon, and the updated Naming and Addressing Paper. These will be formally included as ATNP/2 deliverables. Mr. Calow announced that WG1 had endorsed a proposal for a newly called WG1/2/3 meetings planned for 7-18 October 1996, to prepare the CNS/ATM-1 Package validation report for submission to ATNP/2. This approach for developing the validation report and the need for working group meetings in October 1996, as had been approved by WG1, was proposed to WG3 by Mr. Jones in WP5-3 and was subsequently accepted by WG3. Mr. Jones offered to host the meeting in the US and this was agreed by the working group. Mr. Calow reported that WG1 is requesting that WG3 identify system level requirements that could be reflected in Sub-Volume 1 of the CNS/ATM-1 SARPs.

Discussion of WP5-4, detailing a request from the Banff meeting of WG1, was deferred until the second week of the WG3 meeting where it was to be covered along with other CNS/ATM-2 Package topics. The paper provides a requirement of protection of DLA and X.400 messages against masquerade, modification, and replay. WG3 noted the paper for incorporation in CNS/ATM-2 Package planning for defining the work program associated with the development of the CNS/ATM-2 Package SARPs.

WG3/Flimsy 4 concerned a request from WG1 for system requirements for inclusion in Sub-Volume 1. WG3/SG1 may discuss general/system requirements for Brussels. WG3/SG2 will produce a Part 0 for air-ground applications by the Brussels meeting. SG3 has produced its general requirements in its VDB work. These WG3 materials may form the basis of providing system level requirements to WG1 for possible inclusion in Sub-Volume 1. WP5-21 provided a definition of system level requirements (from WG1), Flimsy 4 described the principles for the development of system level requirements for Sub-

Volume 1 that had been developed by WG1, and Flimsy 1 was a request from WG1 asking for WG3 support to identify system level requirements. WG3 endorsed the review of the WG3 developed documents and identification of candidate system level requirements. WG3 produced Flimsy 3 to summarize the discussions and agreements of WG3 related to the request from WG1 on the proposed role of Sub-Volume 1 to the other SARPs Sub-Volumes. This flimsy further proposed a specific action plan to progress the work.

> ***ACTION ITEM*** *- 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.*

3.2 Review inputs from the ADS Panel

Mr. Jones indicated that there had been a meeting between the three ATNP working group rapporteurs and the two rapporteurs of the ADSP working groups. The ATNP rapporteurs emphasized a need for ADSP to focus on defining the operational requirements in packages rather than just defining end-state operational requirements. There was also agreement that ADSP would provide the definition of the CNS/ATM-2 Package operational requirements to the ATNP working groups by March 1997.

Since there had been a number of coordination efforts by the member of the WG3 subgroups with the ADSP working groups, the results of these efforts were discussed under the other agenda items.

3.3 Review of inputs from other ICAO bodies

Mr. Jones briefed WP 5-21. He indicated a streamlined approach would be needed for the ATNP/2 working plan. Clearly, the ATNP/2 could not review perhaps 1500 pages of SARPs, Guidance Material, planning documents, etc. in the 8 working days that have tentatively been scheduled for ATNP/2. The detailed review of the draft CNS/ATM-1 materials would clearly have to take place within the working groups and the ATNP/2 schedule would only permit a high-level review of the materials during ATNP/2. WG1 has discussed the possible approach of submitting a cover working paper for each SARPs Sub-Volume, or major Sub-Volume part, and simply presenting only the summary material contained in the working papers. With this approach, only working papers containing specific comments against the CNS/ATM-1 material would lead ATNP/2 to review of the detailed technical provisions of the SARPs.

> ***ACTION ITEM*** *- 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.*

Mr. Jones noted that ATNP/2 is still scheduled for November 1996. It will be the first Panel meeting in the new ICAO building that is currently under construction. Mr. Calow indicated that there was some very real concern that the ATNP/2 schedule could be impacted by even a modest delay in ICAO being

able to move into the new building. Mr. Asbury suggested the ICAO regional office in Paris as a viable ICAO alternative meeting location.

The meeting of the joint working groups in Munich is expected to produce a working paper for ATNP/2 describing the approach taken for the validation of the CNS/ATM-1 Package SARPs and recommending that the panel approve the SARPs based on successful validation. WG1 will take the lead in preparing this working paper for approval at the Joint WG meeting in Munich. The working paper will be submitted to the ICAO secretary as an outcome of the Munich meeting. The working paper will reference annexes containing the detailed validation results, but these attachments to the working paper will not be submitted to ICAO until approximately 2 weeks before ATNP/2. The October 1996 meeting of the ATNP working groups will develop and approve these annexes in the form of detailed validation reports for each Sub-Volume and major part (e.g., MHS, CPDLC, etc.). This will be the focus of the planned October 1996 meeting of the ATNP working groups.

Mr. Jones described the briefing he and Mr. Sharma gave to the ANC on December 1, 1995. Issues raised relative to the work of ATNP were the schedule and amount of documentation that must be considered at ATNP/2. The ANC members also indicated a desire to see ATN SARPs requirements traced to ADSP operational requirements. The rapporteurs also affirmed the desire to put the 24-bit aircraft address in flight plans. The rapporteurs also stressed the need for an ICAO office to serve as the ATN address registration authority.

4. ATN Upper Layer SARPs

4.1 Report from SG3

Mr. Steve Van Trees, chairman of SG3 (Upper Layer Architecture) delivered the SG3 report, WP5-8. He reported that the subgroup had met monthly since the Banff meeting, with meetings in Bracknell, Boston, and Toulouse. He indicated that SG3 still maintained the schedule for having stable base standards (i.e., ITU-T and ISO) that was proposed at the first WG3 meeting in San Diego. At this fifth meeting of WG3, SG3 offered baselined draft CNS/ATM-1 SARPs, first draft CNS/ATM-1 Guidance Material (GM), and a draft Validation Plan.

Mr. Van Trees pointed to some of the difficulties in standardizing and separating SARPs and GM. For example, the ITU-T efficiency enhancements have defects that have already been reported to ITU-T but are not yet reflected in the base standard. It is required that these be implemented in ICAO, but the defects are on schedule in ITU-T to be reflected in a correction to the base standard before ATNP/2. Thus pending the ITU-T action to correct the base standard, the ITU-T defect report requirements are currently documented in the draft ULA GM. Mr. Asbury raised the important point of the general need for a continuing CNS/ATM-1 Package defect report register. This is already the case for the Sub-Volume 5 requirements tracking and will need to be supported by WG3 for Sub-Volumes 2, 3 and 4.

4.2 Review of draft ULA SARPs material

Mr. Van Trees then presented WP5-6, the draft ULA SARPs, version 1.3. This is the version approved by SG3 at its Boston meeting. According to the Banff agreements, SG3 was empowered to progress the document to the baseline draft based on completion of naming and addressing material (3.2) and

registration material (Annex A). He therefore presented these new sections in detail. Section 3.2 has material on AP-titles, application context names, and presentation data value encoding of application-layer data. Annex A has naming semantics and the CNS/ATM-1 registration tree.

Mr. Van Trees then accepted a series of detailed editing comments. In Chapter 1, the non-use by MHS of the ATN ULA was affirmed. In Annex A, material was recast into SARPs and notes, and the whole section was moved to 3.2.1 - 3.3.5. Mr. Van Trees undertook to contact the SARPs editor, Dr. Kerr, and produce an approved change-bar UL SARPs version 2.0 reflecting a new baseline to be reported out of the South Brisbane WG3 meeting.

The registration authority material was also reviewed. In the registration tree, IATA was identified as arc 19, but requested no further hierarchy. At the lowest level, GWB and AMHS were deleted, and SMA was added. The label FIS was changed to ATI.

Mr. Van Trees, representing WG3, participated in discussions in WG2 related to WG3 Flimsy 6 and WG3 Flimsy 9. The former flimsy proposed to expand the definition of the traffic types from 8 to 10 and to assign a value for each traffic type. This was based on inputs from the ADSP WG members. Mr. Van Trees reported back to WG3 that WG2 would consider the proposal, but did not plan to put the change into the baseline draft Sub-Volume SARPs until the change was endorsed at the upcoming ADSP WGOW meeting in March 1996. This input will be reviewed by WG2 and WG3 in Brussels.

Mr. Van Trees reported back to WG3 on the discussions related to flimsy 9 on the subject of "TS-user Specification". The flimsy proposed that:

a) WG2 confirm that the security label is not routinely transmitted air-ground

b) WG2 reconsider the encoding of the security label

c) WG2 incorporate the revised list of traffic types (from flimsy 6)

d) WG2 retain connectionless transport protocol

e) WG3 informed WG2 that the expedited data option has been eliminated from the ULA for CNS/ATM-1 Package

f) WG2 insure that RER will be supported below that determined solely by Fletcher's checksum.

g) WG2 provide guidance on using a combination of subnetwork error control mechanisms and transport checksum to support RERs of 10^{-6} to 10^{-7}

h) WG2 note the naming tree that has been prepared by WG3 (attached to flimsy)

Mr. Van Trees reported that WG2 had the following responses to the above items:

a) correct
b) WG2 will reconsider if WG3 provides specific proposal for revised encoding

c) as noted above, WG2 will accept after ADSP WG of the Whole has reviewed specific proposal. ADSP input will be provided at Brussels WG2 and WG3 meetings.
d) will retain CLTP
e) no WG2 response needed
f) WG2 will use RER = low to invoke the use of transport checksum
g) guidance will be prepared to require a subnetwork error control mechanism as well as providing the transport checksum
h) noted by WG2

Subsequently Mr. Van Trees introduced Flimsy 8 proposing two alternative codings for the security label (item b above). The more efficient coding alternative (4 octets) had no provisions for extensibility while the other alternative (8 octets) would preserve an extensible security label. Either alternative offers significantly more efficient coding than that currently defined (15 octets) in Sub-Volume 5. The Flimsy also provided proposed text for Sub-Volume 5 related to the relationship of RER and transport checksum and the requirement for ATN subnetworks to incorporate error control mechanisms. WG3 endorsed the use of the extensible security label and the proposal text related to this latter topic.

Later in the WG3 meeting Mr. Van Trees presented a draft (proposed as version 2.0) of the ULA SARPs that had been updated by Tony Kerr (Eurocontrol) to reflect the changes accepted by WG3 during the earlier review of version 1.3. There were a very few very minor editorial changes identified during the review. The document editor was empowered to make the identified editorial changes and to issue the document as the new baseline, version 2.0, of the draft ULA SARPs. The working group observed that the use of RER may need to be clarified in the interworking and application SARPs to insure fully consistent use across all CNS/ATM-1 Package SARPs documentation.

4.3 Review of draft ULA Guidance Material

Mr. Van Trees then briefly introduced WP5-7, ULA Guidance Material (GM). He indicated that it was derived equally from TULIP material and newly generated material. The new material provided guidance to the common implementors' questions asked to date of SG3. The section on ACSE is viewed as especially useful guidance. The GM also holds 'temporary requirements' being the above mentioned ITU-T defect reports. The GM contains much new material on the bit encoding of all ULA PDUs. Mr. Jones requested WG3 to review the ULA GM particularly from the standpoint of material to be added. References to RTCA documents should either be deleted or made generic. A detailed review of updated GM will be conducted at the Brussels WG3 meeting.

4.4 ULA SARPs validation approach and plans

Mr. Van Trees then presented WP5-17, Upper Layer Validation Plans. The paper is derived from the Banff WG3 report and Banff WG2 Flimsy 12, that was reviewed and endorsed by WG3 in Banff. The paper sets forth the Validation Objectives (VOs) of ULA, such as general OSI conformance, dialogue service support, embedded application support, naming and addressing, and transport service. The VOs are then decomposed into Validation Data Base (VDB) entries. The VDB entries are then decomposed into individual 'Shall' statements. SG3 performed a comprehensive trace of VDB entries, such that all VDB entries have 'Shall' statements, and vice versa. The Appendixes to the document set forth the three validation projects currently under way for ULA, and a list of the 187 shall statements of ULA

(version 1.3). It was noted that version 2.0 of the ULA SARPs has 169 shall statements. WG3 declared the SG3 contribution a model for other validation approaches.

Mr. Paul Hennig presented WP5-20 that provides the detailed PICS from the ATN Systems Inc. (ATNSI) Request for Proposal (RFP). Mr. Hennig explained that ATNSI is planning for the development of a reference router and an end system ATN protocol stack up through the ULA. Mr. Van Roosbroek asked about the ULA requirements not reflected in the PICS. Mr. Hennig responded that the entire SARPs, Volume 4 had been verbally incorporated in the work statement when the potential vendors were briefed in the functionality being required by ATNSI. Mr. Hennig then asked for WG3's statement on the RFP's static conformance. Mr. Van Trees responded that the RFP PICS had been derived from version 1.1 (last Banff) of the SARPs. Version 1.3 of the SARPs, the final draft SARPs, has changes in the SARPs PICS for the AARQ and A-ABORT sections. The AARQ change is a simplification of the naming and addressing requirements. The A-ABORT change (requiring user data) is a Banff requirement. The detailed changes were made available in a note to IATA.

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

Mr. Van Trees presented WP5-18 on CNS/ATM-2 Package SARPs Planning focused on the evolution of the upper layer functions beyond CNS/ATM-1 Package. The working paper proposed candidate work program items for progress the CNS/ATM-2 Package ULA definition. The paper reported that ISO standardization work will be virtually complete by Munich. Examples of the application service element (ASE) enhancements proposed by the working paper are::

a) a time ASE for ATN standardization

b) message reference number ASE

c) confirmed data service element

d) ROSE and CMIP profiles to work over the ULA

e) Profile for supporting security services in the ULA

The general principles proposed for the CNS/ATM-2 Package ULA are:

a) All versions of future applications must coexist with CNS/ATM-1 Package applications

b) All CNS/ATM-2 Package ULA elements must interoperate with CNS/ATM-1 Package elements.

WG3 noted the paper, and indicated that it would accept both new ULA work in Brussels, and as input to CNS/ATM-2 planning documents for Munich.

4.6 Tasking for SG3

Mr. Van Trees presented working paper WP5-18. This working paper concerns CNS/ATM-2 Package ULA SARPs Planning. WG3 affirmed support for the ACSE, edition 3 work and the ASO template work. It was noted that the advisor of Eurocontrol noted the ground-ground forwarding in support of ADS, CM and CPDLC may be supported by a requirement for a connectionless-mode upper layer architecture.

SG3 was tasked with implementing a defect report tracking system against the baseline SARPs using the defect report form in WP5-12 appendix E, modified as necessary.

SG3 was tasked with progressing the development of validation documents (e.g., definition of validation objectives) and serving as the coordination point for validation activities of member organizations to progress the CNS/ATM-1 Package validation program consistent with the approach defined in Flimsy 10 to this meeting report.

Mr. Van Trees reported that a March 1996 SG3 meeting is scheduled to review CNS/ATM-1 Package ULA GM and commence CNS/ATM-2 Package related SARPs.

5. Air-Ground Application SARPs

5.1 Report of SG2

Mr. Mike Asbury presented WP5-12 (Air-Ground Application SARPs), WP5-31 (Toulouse SG2 report), and WP5-32 (Detailed Changes). Mr. Asbury reported that one SG2 meeting was held in Toulouse in January 1996. The ADSP guidance material resulting from the December 1995 meeting of the ADSP working groups was also heavily consulted. There were extensive editorial changes to align the presentation of standards, recommendations, and notes along the style used for Sub-Volume 5. Part 0 of Sub-Volume 2 will be written for submission to the Brussels WG3 meeting.

Mr. Asbury then briefly outlined the significant changes to the air-ground application SARPs since the Banff draft.

In the CM SARPs, there is a significant functional change. It was noted that a change has been incorporated to allow the air-ground dialogue to be kept open until an explicit close is issued by the ground system.

The ADSP requirements do not explicitly address CNS/ATM-1 Package. Due to this, changes have been made in the ADS SARPs to better match ADSP GM. An example of such a change is the amendment to the ADS SARPs to explicitly leave a contract in place until the next contract is initiated. Mr. Asbury pointed out that certain parameter ranges were odd, being based on the original tabular form. Also some timers had been drastically tightened in the most recent ADSP GM. For example, the indication-to-request timer (from the ASE to the user) for the airborne ADS service is now stated as 0.5 seconds compared to 5.0 seconds previously. The meeting was informed that this was a statement of the freshness of the ADS report data. Mr. Camus reported that this requirement could be met with pre-buffered data, but that gathering new reports required a peripheral latency perhaps beyond one second. Mr. Burgemeister prepared Flimsy 5 on accuracy and resolution requirements for time and timers. The

meeting agreed that some of the lowest ADS reporting rates now being envisioned by the ADSP GM are beyond current avionics and ICAO-standardized subnetwork capabilities. Thus these end-state requirements (e.g., down to a one second ADS reporting rate for airport surface requirements) will not be supported by CNS/ATM-1 Package at the system level even if the initial ADS application itself supports this capability without further change. The meeting agreed to develop applications to not impede ADSP requirements, and let the subnetworks ultimately develop. This will be reflected in CNS/ATM-1 in Sub-Volume 1.

Mr. Asbury then presented an overview of CPDLC. He informed the meeting that the draft report from WG-B of ADSP, Montreal 1995, is in error. The conditions for proposing Downstream Clearance (DSC) be considered by ATNP for CNS/ATM-1 Package are as follows: if the OR was stated, validation support agreed, and SARPs drafted. Eurocontrol (Mr. Rob Meade) with Ms. Hamelink and Mr. Maude drafted the DSC change for the CPDLC SARPs. Mr. Asbury noted that it was a very high-level change.

Mr. Asbury then presented an overview of FIS. He indicated that the SARPs were at a very professional level, and less work remained to be done than on other SARPs.

Mr. Asbury concluded with a request for guidance from WG3 on defect report processing and configuration management. This discussion was deferred to later in the meeting where it could be addressed in a general context for all Sub-Volumes.

5.2 Review of draft Air-Ground Application SARPs material

CMA Draft SARPs

Ms. Hamelink then conducted a detailed review of the draft Context Management Application (CMA) SARPs. She indicated three technical changes:

a) Allowing CM ground user to accept and thus keep open a data link initiation dialogue.
b) D-U-ABORT changed to D-ABORT, such that error processing now reflects abort above, in, or below the application layer.
c) Update PDU now has a separate name from Logon Response, but still is syntactically identical

There was some confusion on the valid use of a ‘null’ traffic type. After a discussion with WG2 members, Mr. Van Trees then clarified that the use of ‘null’ traffic type is supported in both the UL and ATN internet SARPs, so that the CM SARPs as drafted are correct in that respect.

Mr. Van Trees undertook to work with Ms. Hamelink on further explanation of the Naming and Addressing guidance material he had earlier provided in WP5-7A.

Mr. Jones indicated he thought the definition of RER which SG2 had imported from ISO 8072 was perhaps too strict since ATN PDUs may be lost due to mobility rather than error conditions. A note was to added to clarify the definition of RER.

Mr. Pearce asked that ground-ground address forwarding, in support of CMA, was included. He indicated that including this in AIDC SARPs, as had been previously envisioned, implied mandatory

AIDC in CNS/ATM-1 Package in order to support this function. A side meeting was convened between SG1 and SG2 members, after which Mr. Asbury reported that ground-ground forwarding requirements in support of air-ground applications would be included in the respective air-ground application SARPs. Editors of the air-ground application SARPs undertook to prepare revised drafts of the air-ground application SARPs that incorporated this added functionality. The revised SARPs were subsequently reviewed by WG3.

Subsequent to the update of the CMA SARPs this revised document (proposed version 2.0) was presented to WG3 by Ms. Hamelink. She lead the working group through the document and pointed the changes that included the editorial changes that resulted from the earlier WG3 review as well as the ground-ground communication elements associated with the overall CM application. The revised draft of the CMA SARPs tightly integrated the ground-ground forwarding functions into the existing air-ground CMA material. Many sections of the draft SARPs were revised to incorporate the new functions. WG3 agreed to forego change bars in the draft and rather accepted a detailed configuration control description of the changes.

ADS Draft SARPs

Mr. Asbury then led the detailed review of the ADS SARPs on behalf of Mr. Tim Maude, the document editor, as Mr. Maude was not in attendance at the WG3 meeting. He indicated that the following changes have been incorporated in the draft since Banff:

a) Ground cancel emergency indication capability
b) parameter ranges (realistic values)
c) brief changes to demand contract

Upon a request from Mr. Edem, Ms. Hamelink undertook to provide possible guidance material on the mapping of service primitives to functional descriptions.

The WG3 agreed to move the state tables in Appendix A to Chapter 5 as a note. The WG3 noted that the SARPs text takes precedence over the state machine description.

Subsequent to the update of the ADS SARPs this revised document (proposed version 2.0) was presented to WG3 by F. Picard. Mr. Picard indicated that he had volunteered to act as temporary editor, whereas the final edit still belonged to the editor, Mr. Maude. Mr. Picard indicated that the major modification of the new version of the SARPs was the addition of ground-ground forwarding of ADS position reports. The ground-ground forwarding has been modeled as a master-slave relationship. The three new services are ground-ground opening, sending, and canceling. New protocol data units and protocol descriptions have been added to support these services. . WG3 approved the progression of the ADS SARPs to v2.0 after noted editorial work. Mr. Jones noted his special thanks to Mr. Picard, and indeed all of SG2, for working throughout the WG3 meeting on the air-ground application SARPs, v2.0 to support very compressed timescales.

CPDLC Draft SARPs

Ms. Hamelink then presented the CPDLC SARPs. She described the changes reflected in version 1.1 that have occurred since Banff. Principal changes relate to:

a) additional messages to the message set
b) D-U-ABORT change (change in name in variables)
c) addition of Downstream Clearance function
d) aircraft request LOGICAL ACK
e) accommodate unknown closure at one end
f) changes to predeparture clearance messages

It was noted by Mr. Anderson that WP5-32 provides additional information on the modifications to the CPDLC SARPs, already incorporated in version 1.1, that resulted from ADSP WG-B inputs.

In response to a question from the Rapporteur, Mr. Asbury and Ms. Hamelink reported that the ADSP WG-B meeting, that was held just prior to the ATNP/WG3 meeting, has produced no new technical requirements that need to be reflected in the CPDLC SARPs related to DSC. However, a number of the safety concerns associated with the use of DSC will be addressed in guidance material for the implementation of DSC being produced by the ADSP. This guidance will address such issues as limiting the set of CPDLC messages used for a DSC ground implementation to only those needed to support the DSC service in a given operational environment.

Subsequent to the update of the CPDLC SARPs this revised document (proposed version 2.0) was presented to WG3 by Ms. J. Hamelink. The principal addition was to provide for ground-ground forwarding of CPDLC message. This is a one-way forwarding with any response. After a few questions relative to the new material, the working group approved the revised SARPs as the new baseline, Version 2.0.

Mr. Burgemeister had submitted WP5-19 providing comments on the Banff version of the draft CPDLC and ADS SARPs. He indicated that it was no longer necessary to present the working paper as the concerns raised by the paper had been addressed by SG2 in preparing the revised draft SARPs.

FIS (ATIS) Draft SARPs

Mr. Picard presented WP5-26 an information paper detailing the status of the FIS draft SARPs. Mr. Frederic Picard then conducted a detailed review of the FIS SARPs. He indicated the following changes:

a) Description of ATIS messages changed due to ADS-B review,
b) time stamps added to all messages.
c) Use of D-ABORT service incorporated.
d) Reuse of dialogue for several FIS contracts.
e) Both demand and extended contracts.
f) Simplified state tables, since only one side can now end dialogue.
g) Air user can cancel all contracts of given type (i.e., CNS/ATM-1 ATIS). This has been changed to multitype (CANCEL ALL) cancel.

Since the only CNS/ATM-1 Package FIS application is ATIS, it was decided to simply identify the application in the ATN environment as ATIS, rather than the broader category FIS.

Some material was identified in each of the air-ground applications SARPs that can perhaps be moved to GM.

5.3 Review of draft Air-Ground Application Guidance Material

Mr. Asbury said no air-ground application guidance material had yet been produced. This was as a direct result of the changes in functionality required to be incorporated in the main SARPs documentation after the ADSP meeting in Montreal in December 1995. Mr. Asbury said that SG2 saw their priorities as being preparation of SARPs, then validation plans, and finally, appropriate GM.

5.4 Air-Ground Application SARPs validation approach and plans

The following also covers discussions on ULA validation, agenda item 4.4. It was noted that working group 2 had received and endorsed 4 working papers on the subject of validation that would be of interest to WG3. Copies of these four WG2 WPs were distributed to the WG3 members for information purposes and the materials were introduced by Jean-Pierre Briand of Eurocontrol (a member of WG2). WG2 WP/201 described the validation objectives for validation. Although the specific details were focused on the internetwork SARPs, the WP contained a general approach that could be applicable to defining the validation objectives of the WG3 validation activities. The opinion endorsed by a number of the WG3 members was that the approach described in the WP seemed to be applicable to the validation of the ULA SARPs, but was perhaps less applicable to the application SARPs.

WG2 WP/203 provided copies of completed forms (only a sampling of the forms that had been submitted to WG2) describing the validation tools to be used by the member organizations for the validation of the internetwork SARPs. While these forms are not directly applicable to document the validation tools be used for the validation of the Sub-Volumes 2, 3 and 4 SARPs, the forms provide a model for equivalent forms that could be developed by WG3 for its purposes.

WG2 WP/202 presented an example of a validation exercise specification. Although these exercises are not directly applicable to the validation exercises to be undertaken for the validation of the Sub-Volumes 2, 3 and 4 SARPs, the document provides a example of a high level specification of an validation exercise.

WG2 WP/249 proposes the framework for the CNS/ATM-1 Package Sub-Volume 5 validation report. This outline could be used as the basis to create the report for the overall for CNS/ATM-1 Package

Danny Van Roosebroek of Eurocontrol introduced WP 5-22 on the subject of interoperability testing as a validation tool. The WG noted the proposed validation scenarios. The purpose of the interoperability scenarios is to support interoperability testing between states/organizations developing validation tools. There was a suggestion from the Rapporteur that perhaps the focus of the validation scenarios should be on the North Atlantic operational environment as representative of an oceanic domain. Individual member states and organizations, in a position to do so, could proceed to develop

scenarios appropriate to their domestic operational domains. The scenarios and the validation results could be reported to ATNP/2 within the validation report.

Mr. Van Roosbroek briefed WP5-23 on the use of protocol validation tools, specifically the use of the GEODE protocol simulation tool.

Mr. Picard briefed WP5-28 on the use of the ATN Archive Validation Server. The server at CENA has provided an archive for WG2, and now extends that for WG3. All SARPs, working papers and other WG3 documents are now available on the server. The CENA server can be accessed by ftp over the Internet.

Ms. Louden briefed WP5-30, the FAA ATN System Validation Plan. The FAA is building to ATNSI RFP PICS for internet and upper layers. The FAA is also validating air-ground application SARPs. Ms. Louden suggested three levels of validation. Technical Validation demonstrates that you build what is in the SARPs Functional Validation validates that the function does what you want it to do. Performance Validation demonstrates that it works well enough in realistic operational environments. This leads to overall system validation activity. She reported that CM/ULA will be available at the end of June 1996 to begin functional validation. CPDLC and ADS will be available in September 1996 to begin functional validation..

Mr. Jones set general goals and schedules for validation with an identified need to complete the validation report by Oct. 1996 with well documented results supporting a recommendation for approval of the SARPs at ATNP/2.

Mr. Asbury commented that we do not have luxury of build-a-little, test-a-little. He also speculated that we may not have enough time to test every 'Shall' statement in the SARPs.. Mr. Jones indicated the FAA approach is for a parallel build and step-wise integration.

Mr. F. Picard briefed WP5-27, which describes the efforts of the French CAA (DGAC/CENA) to validate the ATIS (FIS) application SARPs. A modeling tool has been used wherein the ATIS Application Service Element is broken down into modules and the modules into sub-modules. A number of small errors were found in the protocol description from the Banff version of the FIS draft SARPs. These have been corrected by SG2 in the revised draft to the SARPs. WG3 noted that this work has provided a valuable first step for the validation of the ATIS SARPs.

Mr. Jones presented Flimsy 10, on Ground Rules for Validation. The Flimsy amplified the guidelines set forth in Banff. The .Flimsy recognized the value of flight tests. The paper discusses the model for validation data base construction, and a validation specification (with levels ranging from independent interoperable implementations down to simulation and analysis only). The flimsy then recommends the formation of a validation group formed across WG1/2/3. Mr. Van Trees was appointed WG3 point of contract for coordination related to validation with WG1 and WG2. WG3 endorsed the Flimsy with minor editorial changes. The Rapporteur will provide copies to the Rapporteurs of WG1 and WG2.

Mr. Gregg Anderson presented Flimsy 13. This Flimsy proposes traffic densities and message frequencies for the various operational domains. WG3 endorsed that the type of information contained in the Flimsy is essential to the development of the validation scenarios that are needed to progress the

validation of the CNS/ATM-1 Package SARPs. WG3 encourages ATNP WGOW, at their meeting in March 1996, to review and refine the proposed values in the Flimsy and to provide ADSP WGOW endorsed version as input to the April ATNP WG3 meeting.

Mr. Jones briefed WP5-5. This information paper presented results of an analysis of the end-through-end data integrity over the ATN. The paper concluded that the ATN end-system to end-system data integrity substantially exceeds the operational requirements, however attention must be paid to the distribution of application data when application gateways are used as the ATN end systems.

5.5 Review plan for Air-Ground application documentation for CNS/ATM-2 Package

No materials related to CNS/ATM-2 Package were presented to WG3 for review.

5.6 Tasking for SG2

SG2 was tasked to review any comments submitted against version 2.0 of the air-ground application SARPs and to progress the material for a detailed review at the next WG3 meeting in April 1996. SG2 was also task with progressing the air-ground application Guidance Material for review of a first draft the April 1996 WG3 meeting and for approval at the June 1996 WG3 meeting. SG2 with implementing a defect report tracking system against the baseline SARPs using the defect report form in WP5-12 appendix E, modified as necessary.

SG2 was tasked with the development of validation documents (e.g., definition of validation objectives) and serving as the coordination point for validation activities of member organizations to progress the CNS/ATM-1 Package validation program consistent with the approach defined in Flimsy 10 to this meeting report.

6. Ground Application SARPs

6.1 Report from SG1

The chairman of SG1, Jean-Yves Piram, presented WP5-11 that summarized the progress of SG1 since the October 1995 meeting of WG3. He reported that SG1 has held meetings in London and in South Brisbane. He also reported that two drafting group sessions on the ATS Message Handling Service (AMHS) SARPs have been held in Paris and one on Inter-Centre Communication in Montreal some days before the ADSP meeting. He reported that the work has progressed on two main documents, namely the draft SARPs for AMHS and for Inter-Centre Communications.

The AMHS SARPs had been drafted around the structure agreed by WG3 in Banff and includes system level provisions, the ATS message service specification, the AFTN/AMHS gateway specification and the ATN pass-through service specification. Mr. Piram reported that SG1 was in unanimous agreement on the solutions to be retained with the exception of two outstanding items for which decisions were made.

a) Addressing -

O/R addresses of AMHS users should be called MF-Addresses (MHS form), which includes any address form included in the base standards;

Different addressing schemes may be defined for MF-addresses, among which the XF-addressing scheme is included in the SARPs(see section 2.1.5 of the SARPs);

SG1 decided that no other addressing scheme will be defined, nor referred to, in the CNS/ATM-1 Package SARPs. One expert expressed his disagreement with this decision. He recommended that an explicit reference be made in the SARPs to the existing IATA Addressing Schemes included in the IATA Aeronautical OSI Profile (AOP/SCR).

b) Management Domain registration

The subgroup decided that in Package 1, concerning the registration of MHS / X.400 Management Domains, the role of ICAO should be limited to that of a place for declaration. The reason for this difference is the existence of registration procedures of X.400 Management Domains associated with the use of X.400 / MHS standards, by national (non-aeronautical) Registration Authorities or by international Registration Authorities yet to be defined.

One expert expressed his disagreement with this decision. He recommended that ICAO should formally liaise with ITU-T and apply to become the International Registration Authority for ATS Organizations (IATA is currently making the same application for the organizations under its auspices);

SG1 Chairman also reported on the two following subjects:

a) the conformance of the AMHS to X.400 should be a recommendation to permit use of public X.400 services. It is recalled that the requirement for such a conformance was adopted at the WG3 San Diego meeting, the reason being the need to be able to interoperate with public X.400 services (public ADMDs). The impact of this decision is the conditional requirement for Transport Class 0 for interoperation with such public X.400 services (i.e. not over the ATN Internet).

b) the draft SARPs material on the ATN pass-though service has not progressed as fast as the other areas of the SARPs due to the lack of support. SG1 did not consider the material on pass-through service ready for baselining.

The Working Group 3 did not comment at this stage on the above subjects.

Mr. Piram reported that as a result of the first meeting of the ICC Drafting Group (Montreal, 22-24 November 1995), Version 0.2 of the Draft AIDC SARPs was presented to the sixth SG1 meeting

(London, 4-6 December 1995) as being the first ICC application developed for the CNS/ATM-1 Package.

Mr. Piram further reported that a number of changes to the draft AIDC SARPs have resulted from coordination with the ADSP working groups that occurred in November-December 1995 and from inputs received from SG3 related to ULA services. These inputs to SG1 have in the draft AIDC SARPs having been revised as follows:

a) rationalization of the AIDC services;

b) defining a dedicated control function for AIDC; and

c) restructuring of the draft AIDC SARPs.

6.2 Review of draft Ground Application SARPs material

Mr. Jean-Marc Vacher, editor of the AMHS SARPs, presented the draft AMHS SARPs, WP5-10. He provided a chapter-by-chapter summary of the material which was followed by a detailed discussion of the draft SARPs material. There were a number of editorial changes identified and the working group concluded the following significant, although mostly editorial, items:

a) chapter 1 of the current draft SARPs includes a combination of requirements, notes and material more appropriate as GM. A revised chapter 1 to provide introductory materials, as provided for the other SARPs being drafted by WG3, was requested;

b) notes in the current draft should be reviewed and moved to GM if appropriate;

c) generally notes, or statements related to transition issues beyond Package 1 should be moved to GM;

d) the requirement for message logging will be retain in the draft SARPs however the required period that the logs must be retained will be implicitly covered by a note making reference to the current provision of Annex 10;

e) SARPs will support ISO X.400 profile and treat CCITT implementation X.400 profiles as a local matter. The GM will provide addition information related to the use of ITU-T (CCITT) X.400;

f) since MHS will operate over a single transport connection, all messages for the AMHS services will be mapped to a single transport and CLNP priority. Thus multiple application specified priorities will be mapped to a single internetwork priority. Since the ground paths associated with air-ground communications may also traverse the same ground subnetworks as the AMHS traffic, consistent mapping between the air-ground communication priorities and the single AMHS priority has to be assured. The working group concluded that the AMHS should use the transport priority (6) specified for flight regularity communications as

this would prevent an AMHS message from moving ahead of the more time critical flight safety messages associated with some of the air-ground communications.

g) the working group identified that GM needs to be developed to explain that MTA addressed by the AMHS service are static and would be found from a look-up table. The GM would also explain the relationship of the MTA address to the ATN address;

h) WP5-29 provides a revised chapter on the pass-through services, but this material will need to be significantly enhanced to bring it up to the same level of detail as the remainder of the draft AMHS SARPs. Comments on this material should be provide to Mr. Moulton;

There was much discussion as to whether the draft AMHS SARPs could be baselined prior to the Brussels WG3 meeting. The working group concluded that although the technical requirements in the draft SARPs presented to the meeting were mature enough, there were a large number of editorial changes needed, including moving certain of the draft material into Guidance Material. The working group concluded that SG1 should issue the next version of AMHS SARPs in the 3rd week of March to WG3 members. Comments should be submitted in writing to the document editor before the SG1 meeting in Brussels in April. The goal of the working group will be to report the initial baseline version (version 1.0) out of the Brussels WG3 meeting.

The working group noted that the maturity of the material on the "pass through service" within the MHS SARPs is not at the same level of technical maturity as the rest of the document. WG3 agreed that the AMHS SARPs could be ready to baseline at Brussels even if the "pass through service" material were not up to the level needed to be considered fully mature. Mr. Kavanaugh indicated that Pass-Through is a direct ATNP/1 requirement, not an isolated technical solution. Mr. Jones indicated the U.S. would support upgrading the Pass-Through Service material and make it available before the Brussels meeting. Mr. Piram will invite the contributor (Mr. Moulton) to enhance the editorial aspects of his contribution, to make it consistent with the above comments and the rest of the AMHS SARPs.

Mr. Piram described the status of the ICC draft SARPs. He indicated that the ADSP has not yet come forward with comprehensive, well defined operational requirements for ICC. However, operational requirements do exist for one specific subset of ICC. This is the ATC Interfacility Data Communications (AIDC) Application. Mr. Claude Leclerc, the editor of the AIDC draft SARPs introduced WP 5-9, the draft ICC SARPs which only include the AIDC Application for the CNS/ATM-1 Package. The AIDC SARPs were presented, but were not proposed as baseline..

There was discussion on two points of the draft that was reviewed by the working group First, the AIDC control function is specific to AIDC, rather than using the generic CF offered in the UL SARPs. Second, the AIDC SARPs do not include the ground-ground support elements for air-ground elements, these being found with the air-ground elements. WG3 agreed that the current Sub-Volume title remained appropriate.

WG3 then performed a chapter review of the AIDC SARPs. Mr. Pearce indicated the service description was complete, and that the protocol description would follow. It was also indicated that the ASN.1 and communications requirements sections were older material, and needed to be updated.

An updated version was prepared during the course of the WG3 meeting and was distributed but not discussed. Comments should be submitted to the document editor until Friday, 15 March 1996. The plans are for the proposed baseline version to be available for review/approval at the Brussels WG3 meeting.

WG3 concluded that the Ground applications SARPs will be included as the first SARPs related agenda item of the WG3 meeting in Brussels, in order to allow the opportunity to incorporate any necessary changes by the conclusion of the WG3 meeting.

6.3 Review draft Ground Application Guidance Material

No Guidance Material was presented to WG3 for review.

6.4 Ground Application SARPs validation approach and plans

This topic was covered in the general sense under agenda item 5.4 above.

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

No material directly related to CNS/ATM-2 Package were presented to WG3 for review.

6.6 Tasking for SG1

SG1 was tasked with issuing a revised draft AMHS SARPs by the third week of March 1996, based on the comments received during the WG3 meeting. WG3 members were ask to submit comments in writing to the document editor, Jean-Marc Vacher, prior to the next SG1 meeting (second week of April in Brussels). SG1 was tasked with presenting a proposed baseline AMHS SARPs for review at the next WG3 meeting (Brussels starting 15 April, 1996). SG1 was tasked with preparing the AMHS guidance material with an initial draft submitted for review at the next WG3 meeting.

SG1 was tasked with implementing a defect report tracking system against the SARPs, once baselined, using the defect report form in WP5-12 appendix E, modified as necessary.

SG1 was tasked with progressing the development of validation documents (e.g., definition of validation objectives) and serving as the coordination point for validation activities of member organizations to progress the CNS/ATM-1 Package validation program consistent with the approach defined in Flimsy 10 to this meeting report.

SG1 was also task to progress the ICC draft SARPs. Comments received by the editor on or before 15 March are to be considered when preparing an inital complete draft for review at the next WG3 meeting (April 1996).

7.0 Action Plan and Planning for ATNP/2

Mr. Kraft and Mr. Van Trees led a discussion of the work on Sub-Volume 1. . It was noted that the mobile ATN subnetworks dominate the end-to-end performance expected to be available over the ATN where air-ground communications is concerned. The current work on Sub-Volume 1 is focused on the identification of the highest level technical requirements. It was indicated that WG3 will need to review each Sub-Volume and identify what are actually system level requirements. The plan is to carry forward the system level requirements from the other Sub-Volumes into Sub-Volume 1. Thus for example, Part 0 (System Requirements) of each Sub-Volume could, at least in part, be absorbed in Sub-Volume 1. Mr. Pearce and Mr. Van Roosbroek cited the need to support regional operating concepts. Mr. Van Trees and Mr. Kraft made a presentation on the scope of Sub-Volume 1 to WG3 SARPs editors during the meeting. The general concept is that the World Wide Plan addresses a general introduction, Sub-Volume 1 addresses System Requirements, and Sub-Volumes 2, 3, 4 and 5 are for skilled users only and address the detailed technical requirements. A WG1 drafting group meeting is scheduled in Seattle 25-29 March 1996. The drafting group will extract system-level requirements (e.g., routing on traffic types) with minimal impact to extant Sub-Volumes. There will be another WG1 drafting group meeting on Sub-Volume 1 on 20 April in Brussels. This is on a Saturday during the course of the WG2 and WG3 meetings. The participation of WG3 members in a position to contribute to progressing the work on Sub-Volume 1 is encouraged.

There was a discussion on whether WG3 will need to submit the draft SARPs material to ICAO, for ATNP/2, in the 2 column format used in the ICAO Annexes. WG3 agreed to leave SARPs material in one column format.

The following action item was identified to ensure a consistent use of APRL in the various SARPs Sub-Volumes being submitted to ATNP/2.

> ***Action Item*** *- A question was raised for entries under the ATN Support column on the APRLs, should capitals vs. lower-case be used characters be used? The 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.*

The working group noted the proposed revised work program, Flimsy 2, that had been prepared by the ATNP Secretary for the activities of the panel.

8.0 Any Other Business

Document Configuration Control

Mr. Jones presented Flimsy 7 that had been coordinated with WG2. This flimsy proposed the approach for maintaining configuration control on the draft SARPs documents. The proposal to indicate baseline versions with X.0 number (i.e., 1.0, 2.0, etc.) with changes indicated from the previous baseline version. Interim versions would increment the number after the decimal point (e.g., 1.1, 1.2, 1.3, etc.) and would indicate changes since the current baselined version. This proposal was approved by the working group.

Mr. Steve Hiltz presented Flimsy 11 proposing structure for file naming for working papers, information papers, Flimsys, draft SARPs and GM. Some concern was expressed about the ability of the proposed file naming convention being able to accommodate files containing attachments to working papers and for accommodating interim versions of multiple components of a SARPs or GM that are at different revision levels.

Mr. Jones noted WP5-25 an information paper announcing the availability of an FAA World Wide Web site for the FAA's Aeronautical Data Link program.

It was noted that copies of the WG3 documents from the Brisbane meeting would be posted on the CENA ftp server and would be available for downloading by the Internet within a few days after the conclusion of the meeting.

The partial agenda/schedule agreed to for the sixth meeting of WG3 in Brussels, 15-26 April 1996 is:

Agenda Topic	Date(s)
Ground Application SARPs and GM	15-17 April 1996 22 April
ULA SARPs and GM	18-19 April 1996
Air-Ground Application SARPs and GM	24- 25 April 1996

Rapporteur's Note: The tentative dates for the agenda item for the Air-Ground Application SARPs and GM review was moved by one day subsequent to the conclusion of the Brisbane WG3 meeting to allow for a joint session with WG2 on Tuesday 23 April. The dates above are now consistent with the proposed agenda for the sixth meeting of WG3.

Summary of Planned WG3 and Subgroup Meetings

WG3 SG1 ICC drafting group	Location TBD	18-22 March 1996
WG3 SG1 AMHS drafting group	Location TBD	3rd week March 1996
WG3 SG3	Toulouse	18-22 March 1996
WG3 SG1	Brussels (Eurocontrol or Hotel TBD)	10-12 April 1996
WG3 SG2	London	12-16 March 1996
WG3 Sixth Meeting	EUROCONTROL Headquarters, Brussels, Belgium	15-26 April 1996
WG1 Subgroup on Sub-Volume 1	Brussels, Belgium	20 April 1996
WG3 SG2	Toulouse	29 April-2 May 1996
JWG	Munich, Germany	21 June 1996
WG3 Seventh Meeting	Munich, Germany	24-28 June 1996
WG3 Eighth Meeting	United States (specific location to be determined)	7-15 October 1996
JWG	U.S.	17-18 October 1996
ATNP/2 (Panel Meeting)	ICAO Hdq. Montreal, Canada	5-16 November 1996 (tentative)

List of Attachments

Attachment 1 - WG3 Draft Agenda

Attachment 2 - WG3 Attendance List

Attachment 3 - WG3 List of Working Paper

Attachment 4 - List of WG3 Document Editors

ATTACHMENT 1

ATNP WG3 - Fifth Meeting - AGENDA

5-14 February 1996

1. Administrative Items and Approval of the Agenda
   - 1.1 Administrative announcements
   - 1.2 Discuss arrangements for Sixth WG3 meeting (April 1996 in Brussels)
   - 1.3 Review Agenda

2. Review and Approve Reports of the fourth meeting (Banff) 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/results from the WG1 meeting
   - 3.2 Review inputs from the ADS Panel
   - 3.3 Review inputs from other ICAO bodies

4. ATN Upper Layer SARPs
   - 4.1 Report from SG3
   - 4.2 Review of draft ULA SARPs material
   - 4.3 Review of draft ULA Guidance Material
   - 4.4 ULA SARPs validation approach and plans
   - 4.5 Review plans for ULA documentation for CNS/ATM-2 Package
   - 4.6 Tasking for SG3

5. Air-Ground Application SARPs
   - 5.1 Report from SG2
   - 5.2 Review of draft Air-Ground Application SARPs material
   - 5.3 Review of draft Air-Ground Application Guidance Material
   - 5.4 Air-Ground Application SARPs validation approach and plans
   - 5.5 Review plans for Air-Ground Application documentation for CNS/ATM-2 Package
   - 5.6 Tasking for SG2

6. Ground Application SARPs
   - 6.1 Report from SG1
   - 6.2 Review of draft Ground Application SARPs material
   - 6.3 Review draft Ground Application Guidance Material
   - 6.4 Ground Application SARPs validation approach and plans
   - 6.5 Review plans for Ground Application documentation for CNS/ATM-2 Package
   - 6.6 Tasking for SG1

7. Action Plan and Planning for ATNP/2
   - 7.1 Report on action plan or resolution of issues/action items from earlier agenda items
   - 7.2 Discuss need for Sept. 1996 WG3 meeting to finalize validation report to ATNP/2
   - 7.3 Review proposed agenda for ATNP/2

8. Any other business

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ATTACHMENT 3

LIST OF WORKING PAPERS

ATNP WG3 - Fifth Meeting - South Brisbane, Australia - 5-14 Feb. 1996

No	Agenda Item	Presenter	Title
5-1	1	R. Jones	Agenda
5-2	2	R. Jones	ATNP WG3 Report Fourth Meeting (Banff, Oct. 1995)
5-3	4.4, 5.4 6.4 & 7.2	R. Jones	Approach for Developing Validation Reports for CNS/ATM-1 Package Draft SARPs
5-4	3.1	R. Jones	ATNP WG1 Requests for Inputs on Overall Security Concept
5-5 IP	5.4	R. Jones	End-through-End Data Integrity and the ATN
5-6	4.2	S. Van Trees	Draft CNS/ATM-1 Package ULA SARPs
5-7	4.3	S. Van Trees	Draft CNS/ATM-1 Package ULA Guidance Material
5-8	4.1	S. Van Trees	Report of SG3
5-9	6.2	J. Piram	Draft CNS/ATM-1 Package ICC SARPs
5-10	6.2	J. Piram	Draft CNS/ATM-1 Package MHS Over the ATN SARPs
5-11	6.1	J. Piram	Report of SG1
5-12	5.2	M. Asbury	Draft Air/Ground Applications SARPs Material Developed by SG2 (version 1.1)
5-13			Not Used
5-14			Not Used
5-15			Not Used
5-16			Not Used
5-17	4.4	S. Van Trees	CNS/ATM-1 Upper Layers Validation
5-18	4.5	S. Van Trees	CNS/ATM-2 Upper Layer SARPs Planning
5-19	5.2	A. Burgemeister	Review of Draft SARPs for CPDLC and ADS
5-20	4.2	P. Hennig	ATN Systems RFP PICS
5-21	3.1	R. Jones	WG1 Actions of Relevance to WG3
5-22	5.4	D. Van Roosbroek	Use of Interoperability Testing as a Validation Tool

No	Agenda Item	Presenter	Title
5-23 IP	5.4	D. Van Roosbroek	Eurocontrol Activities on Validation using a Protocol Simulation Tool
5-24 IP	1.2	D. Van Roosbroek	ICAO/ATNP Meeting in Brussels
5-25 IP	8	R. Jones	U.S. FAA Data Link Web Site
5-26 IP	5.2	F. Picard	Draft ICAO SARPs, Flight Information Services - Status of the draft SARPs Version 1.1
5-27 IP	5.2	F. Picard	Draft ICAO SARPs, Flight Information Services - Verification of FIS Protocol - Approach and Results
5-28 IP	5.2	F. Picard	ATN Validation Archive Server
5-29	6.2	J. Piram	ATN Pass-Through Service
5-30	5.4	G. Louden	FAA ATN System Validation Plan
5-31	5.1	M. Asbury	Report of the 6th Meeting of ATNP WG3, SG2, Toulouse, 8-12 January, 1996
5-32	5.2	M. Asbury	Modification to Response Attributes in CPDLC

Attachment 4
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