Final

Report of the 16th Meeting of ATNP Working Group 2

30 Sept. – 2 October 1998
Bordeaux, France

0. Meeting Organizational Issues

Mr. Jones, Rapporteur opened the meeting. Mr. Dedryvere, panel member from France and host of the meeting, welcomed the members and advisors to the meeting. He described the administrative arrangements for the meeting including the office facilities provided in support of the working group meetings. After introductions of the WG2 participants, the working papers were collected and assigned working paper numbers. The list of working papers is provided as attachment 2.

1. Approval of the Agenda (WP461)

Mr. Jones, Rapporteur of WG2, presented WP-461 (Attachment 1 to this report), the proposed agenda for the meeting. The agenda was approved.

2. Review and Approval of the report of 15th Meeting of WG2 (Utrecht) – WP462

Minor corrections were accepted against the draft meeting report, including a correction to the list of flimsies.

3. Inputs/Issues from other ICAO Bodies (e.g., Panel Secretary, CCB, WG1, etc.)

Mr. Hennig introduced WP-464 by asking Mr. Bigelow to present the working paper. WP-464 provided inputs from WG1/SG2 proposing that WG1 assume responsibility for the selection of the cryptographic algorithm (asymmetric and hashing algorithms) for ATN application security using digital signatures. There was a discussion on whether WG1 should also select the algorithm to be used for generation of the digital signatures for IDRP. The working group agreed that WG2 will specify the requirements for the IDRP cryptographic algorithm and request that WG1 define the specific algorithm to be used for generation of the digital signatures for use with IDRP.

ACTION 16/1 – Mr. Jones to inform WG1 of the position of WG2 relative to the WG1 rapporteur input of WP-464.

Mr. Jones indicated that no formal inputs have been received from AMCP in response to the WG2 communiqué from the Utrecht meeting. However, a review of material from the prior panel meeting of the AMCP plus additional material prepared by the AMCP secretary have revealed that AMCP is working on SARPs for VDL Modes 3 and 4, and next generation AMSS. Also the AMCP has already approved the HFDL SARPs. He noted that VDL Mode 4 is being limited by the SARPs to supporting only surveillance applications (i.e., ADS-Broadcast and ADS Contract). He noted that this creates an issue for the ATN ICS SARPs as the traffic type definition does not allow for an indication of a subset

of ATSC (i.e., only supporting the ADS application). WG2 is not expected to take specific action on the VDL (Mode3 and Mode 4) and next generation AMSS SNDCFs until inputs are received from AMCP.

4. Review Status of Action Items from the 15th Meeting of WG2

The working group reviewed the status of open action items from the 14th and the 15th meetings of WG2.

ACTION 14/4: Mr. Moulton, the WG2 Point of Contact for ICS security, will coordinate with WG1/SG2 and WG3/SG3 to ensure the development of ICS security requirements consistent with the system level requirements and the definition of X.500/X.509 services being defined by these groups.

On-going: Coordination has been initiated and the WG1/SG2 SARPs and GM are aligned with the view of WG2 on IDRP security. However the WG3 on the X.500 is just getting started and additional coordination with WG3/SG3 will be needed.

ACTION ITEM 14/6: Mr. Hennig to provide input to next WG2 meeting on IATA expectations for remotely managing airborne resources.

Closed: IATA inputs on the subject are being made and accounted for by the joint subgroup on systems management.

ACTION 15/1: Mr. Jones develop for review of the Bordeaux WG2 meeting, a proposed outline for the Package-2 ICS SARPs based on additions/revisions to the first edition of Doc 9705.

Closed: WP 466 provided to the working group.

ACTION 15/2: ALL Submit nominations for an editor for the Package-2 ICS SARPs for confirmation by WG2 at the Bordeaux meeting.

Closed: John Antonucci agreed to serve as the editor for Package-2 ICS SARPs.

ACTION 15/3 Mr. Moulton will provide a working paper describing the alternative models for multicasting and distribute it to the WG2 and WG1 members by September 1. This working paper will be reviewed at the Bordeaux WG2 and will be coordinated with WG1 at their meeting in Bordeaux.

Closed: Not provided in advance of the WG1/WG2 meetings, but 2 working papers on the subject were submitted to the WG2 meeting

ACTION 15/4: Mr. Bigelow will provide information to the Bordeaux WG2 meeting on the status of Gatelink AEEC standards and industry implementation plans.

Open: Mr. Bigelow reported there has been no recent AEEC activity on gatelink, however there are implementations underway. Mr. Bigelow will continue to investigate the status of gatelink activities.

5. Package-1 ICS Documentation

5.1 ICS SARPs (consideration of requests from the CCB and/or ICS SME).

Mr. Graf presented WP-473. He reported that 20 PDRs have been submitted to date against the ICS SARPs and 15 have been resolved with 7 included in the published Doc 9705 and the proposed changes for 9 of the remaining PDRs have been accepted to be included in the 1999 update to Doc 9705. There are 4 outstanding PDRs with 3 of these submitted at the CCB meeting held the Monday before the WG2 meeting. WG2 was requested to review the 4 outstanding PDRs and provide inputs to the ICS SME (Mr. Graf). The first of these PDRs had been discussed at the previous WG2 meeting and there was an additional input from Mr. Whyman, via WP-471, into this meeting related to this PDR. The 3 new PDRs also required discussion by WG2.

Mr. Tamalet presented Attachment B to the working paper. This attachment was a copy of a PDR 98090003 related to downgrading of ATSC traffic class. A case was discussed where looping could occur until the packet expires. It was noted by Mr. Graf that the ICS SARPs also describes a cost discriminator that could be a tie-breaking rule that if properly applied could eliminate the problem. The working group agreed that additional clarification in the ICS SARPs on the appropriate tie-braking rules either based on relative cost or hop count is needed. Mr. Whyman, Mr. Graf and Mr. Tamalet agreed to draft a proposed change to the ICS SARPs to describe a tie-breaking process. This proposed change was prepared as flimsy 2 to the working group meeting. Mr. Graf presented this flimsy that proposed that as tie-breaker monetary cost be used, if known. However, if monetary cost were not known or has the same value for the two alternative routes, then the hop count would be used as the tie-breaker. Based on comments from the working group the flimsy was modified and subsequently approved by the working group.

ACTION 16/2: Mr. Graf to provide an input to the CCB conveying the WG2 position on PDR 98090003 as described flimsy 2.

Mr. Tamalet presented Attachment C to WP-473, a copy of PDR 98090004 describing a problem where a backbone BIS would hide the optimal routes to off-backbone BISs. Since the ICS SARPs do not require the backbone BIS to provide detailed information of all available routes to a given aircraft it is possible that a less than optimum route is used. However, the working group felt that there is a trade-off between increased backbone routing traffic versus the level of knowledge each off-backbone BIS is provided and the current ICS SARPs provides a valid minimum requirement. However, there is nothing to prevent, on a local basis, having the backbone BIS provide additional details of the available routes to the off-backbone BISs. The working group concluded that no changes to the ICS SARPs are necessary.

Mr. Tamalet presented Attachment D to WP-473, PDR 98090010 describing a problem with the value of SNCR in X.25 call request packets under certain circuit failure/recovery conditions. The problem could arise when one Virtual Circuit across a mobile subnetwork is dropped and one or more other virtual circuits still exist. With the baseline ICS SARPs there is a possibility that the mobile SNDCF would request a new virtual circuit, to replace the lost circuit, using the SNCR of a still exiting virtual circuit. The working group agreed that a change was needed to the ICS SARPs to prevent this situation. The proposed change to the ICS SARPs already included in Attachment D to WP-473 was revised and approved by the working group.

ACTION 16/3: Mr. Graf was to prepare a submission to the CCB to convey the WG2 inputs on PDR 98090010.

Mr. Graf presented WP-474 on issues raised on the ICS SARPs. This paper discusses potential issues for which no PDRs have yet been generated. WG2 was requested to review the potential issues and provide inputs on the need for PDRs, or not.

The first potential issue was the need to accommodate bit-aligned addresses prefixes as required by the base ISO standard even though the ATN address prefixes are only octet aligned. The group felt that no PDR was needed.

The potential second issue was related to the omission of the end-of-block code with the deflate algorithm. It is pointed that that it is possible to have more than one Deflate Data block in the same NPDU. WG2 agreed that it needs to be clarified in Doc 9705 that it is only the final Deflate Data block that can be deleted. Mr. Graf and Mr. Whyman agreed to prepare a PDR on this issue.

ACTION 16/4: Mr. Graf and Mr. Whyman are to prepare a PDR for submission to the CCB to provide clarification that it is only the final Deflate Data block that can be deleted.

The third potential issue was related to the removal of trailing zero octet of the deflate block. Doc 9705 defines a modified deflate algorithm where the final all zeros octet is deleted in order to save overhead. However, it has been pointed out that under certain conditions the final octet may not be all zeros. Mr. Whyman reported that a PDR is probably needed to explain that the end of block code can only be removed under certain specific conditions (i.e., only if the last octet is all zeros). However additional work will be needed to validate this. The working group felt that no PDR was appropriate on this at this time. However, the group recognized that based on additional investigations it may be determined that a PDR is necessary.

The forth potential issue is related to the 32Kb size of the backwards window with the deflate algorithm. The question relates to the recommendation in the Doc 9705 for the buffer size without making it clear if this applies to both the compressor and the decompressor or only one. Mr. Whyman expressed there is a need for the decompressor to have the 32 KByte buffer but not the compressor. A change to a note in the ICS Doc 9705 was proposed in the working paper and the proposed change was endorsed by WG2.

ACTION 16/5: Mr. Graf to prepare a PDR to modify a note in the Doc 9705, Subvolume 5, to indicate there is a need for the Deflate decompressor to have the 32 KByte buffer but not the compressor.

The fifth potential issue is related to the aggregation of routes with the same RIB-Att. In the case where 2 routes exist with the same reachability but with different RIB attributes (i.e., a potential issue of whether maintained as single or separate routes). The working group felt that Doc 9705 adequately covered this case and defines that separate routes would be maintained.

The sixth potential issue is related to the advertisement of changes in mobile subnet connectivity. The potential issue was felt to be adequately covered by Doc 9705 and no change is necessary.

The seventh potential issue is related to rapidly changing subnetwork connectivity, such as might occur at the edge of coverage on a VHF subnetwork. In this case the joint and leave events could be buffered when they cannot be uplinked over the subnet that is responsible for generating the joint or leave event due to loss of subnet connectivity. This could result in excessive comm. traffic over a second air-ground subnetwork which might not have adequate capacity to support the increased loading. This is also related to the existing PDR 98060006. Discussion on this issue were deferred until the discussions on PDR 98060006. Subsequent to these discussions it was agreed that suitable changes to address this issue would be appropriate for inclusion in the Package-2 ICS SARPs.

ACTION 16/6: Mr Whyman to prepare proposed ICS changes to provide Package-2 enhancements derived from the proposal in WP-471 to address the issue of the possible negative effects that could results from rapidly changing mobile subnetwork connectivity.

Mr. Whyman introduced WP-470 describing a potential Doc 9705 problem with supporting the VDL Mode 2 handoffs (transition between ground stations). The problem is a lack of information on how compression is managed when 8208 connections are established with the next ground station that provides a connection between the same BIS pair (airborne and air-ground BIS). He reported that it appears that the VDL Mode 2 SNDCF needs to support reporting of one additional event (i.e., the handoff event). The working group agreed that a PDR is needed on this subject and the PDR needs to indicate that the VDL SARPs may also be impacted by this issue.

ACTION 16/7: Mr. Whyman to prepared a PDR proposing modifications to the VDL SNDCF. The PDR should also indicate any needed changes to the VDL Mode 2 SARPs.

Mr. Whyman presented WP-471 proposing a new solution to PDR 98060006. The working group had considered this PDR at its Utrecht meeting and had proposed a solution. This working paper proposed a different solution. The problem with the ICS SARPs, raised by the PDR, concerns an airborne BIS maintaining knowledge of the ATSC traffic class supported by each air-ground path when multiple paths exists, supporting differing ATSC traffic classes, between the airborne BIS and a given air-ground BIS. This working paper offered a proposal to use a new options parameter within the ISH PDU to convey the ATSC traffic class of the subnetwork and any restrictions on traffic types permitted to pass over that subnetwork. The working paper also proposed a new router capabilities parameter. This alternative was proposed as a better long-term solution than the change to the ICS SARPs endorsed by WG2 at its previous meeting. Mr. Graf questioned the addition of the new router capabilities parameter indicating he felt that it could add too much complexity to the BIS. The proposal in the working paper attempted to address 3 issues that have been raised (i.e., two in addition to that of the existing PDR). These other issues were discussed in WP-474, para. 8 (rapidly changing subnetwork connectivity) and WP-472 (version control). It was felt by the working group that the proposal in WP-471 be considered in the larger context of the issues raised by these other working papers. Subsequent to the discussions and decisions on WP-472 the working group endorsed items a, c and d in the recommendations of WP-471 to be used as the basis to develop a proposal for changes to the ICS SARPs to address the defect reported by PDR 98060006.

ACTION 16/8: Mr. Graf will draft a proposal, against PDR 98060006, for the detailed changes to the ICS SARPs to address items a, c and d in the recommendations of WP-471. Mr. Graf will coordinate the proposed changes with Mr. Whyman before submission to the CCB.

Mr. Whyman presented WP-472 so that its content could be discussed in conjunction with the proposals of WP-471 (discussed above). This working paper suggested that certain changes and enhancements to the ICS SARPs could create interoperability issues unless a version control mechanism is introduced. The paper proposed to use an options parameter of the ISH and ESH PDUs to convey new capabilities of routers and end systems. This was proposed as a general framework for correcting defects in the current ICS SARPs that would result in interoperability concerns and as a means of accommodating future enhancements, such as authentication of IDRP exchanges, to the ICS SARPs. Mr. Moulton suggested a parameter with a version number might be more appropriate. Mr. Graf noted that ICAO will issue periodic addendum's to Doc 9705 that will be a collection of changes that will established a new baseline and the version control numbering need only address this level of revisions to the baseline (i.e., not individual changes addressing individual defects or enhancements). However, some members felt that there may be certain serious defects that may result in individual corrections, of the type requiring a revised version number, being implemented before ICAO issues the subsequent addendum to Doc 9705. Mr. Whyman and Mr. Graf prepared flimsy 1 describing the revised proposal for version control (i.e., use of version numbers). The group agreed that the same type of version control mechanism could be applied to CLNP and COTP. The flimsy also addressed version control for these protocols. The flimsy was prepared for coordination with the CCB and defined a framework for technical provisions that could be used by the CCB and WG2 for the introduction of enhancements/changes to the ICS SARPs that are not backward compatible. This flimsy only presented a high level framework and the definition of the specific technical provisions will be future work. The working group agreed on some changes to the introductory text of the flimsy. Mr. Hennig updated the flimsy to better describe when version numbers will need to be incremented. The updated flimsy was subsequently reviewed and approved by the working group with some additional editorial changes.

ACTION 16/9: Mr. Jones to submit flimsy 1 to WG1 and the CCB.

5.2 Additional Validation Results

Mr. Schade presented WP-465, an information paper on comparative data link investigations by DFS. The paper describes a study being undertaken by DFS to compare the properties of AMSS, Mode S subnetwork, NEAN (a 9600 bps STDMA VHF system) and Mode S specific services. The experiments will investigate availability, call establishment latency, data transmission delay, data integrity and available user data rates to/from one user. He explained that neither the NEAN or the Mode S specific services are ATN subnetworks. Mr. Jones questioned if the experiments would be able to demonstrate how large number of users would impact the systems performance. Mr. Schade indicated that there would be an attempt to document the channel/frequency loading during the experiments but the experiments would not involve multiple/many users.

5.3 Implementation Plans

Mr. Whyman presented WP-469, an information paper describing the proposed EuroVDL Project. The paper described the plans for both an analysis of the VDL Mode 2 subnetwork and proposed architecture of the ground network supporting the EuroVDL project. ADS will be the ATS application used for the EuroVDL trials. Airlines may also use AOC application(s). Flights tests are expected to begin in late 2000.

Mr. Crenais presented WP-480 describing the Prototype NSAP Address Repository (PANAR). This describes a prototype developed in response to an action that was accepted by STNA at the ATNP

working group meetings in Brisbane. The PANAR tool, developed by STNA using Microsoft Access (version 2), is now available for download via the CENA server and is viewed as a interim solution for local and regional ATN projects. An alternative, perhaps based on the ongoing X.500 directory service activities, may provide the long-term solution. STNA has frozen the design and does not plan additional development of the tool.

6. Package-2 ICS Documentation

A joint session with WG3 was held to discuss the subgroup activities on systems management and security. The results are presented under agenda items 6.1 and 6.2 below.

Mr. Jones presented WP-466 that was submitted in response to Action Item 15/1. The working paper identified several areas where the baseline ICS SARPs will need to be modified in order to accommodate the new functions/facilities anticipated to be included with the proposed 'Package 2' upgrades to Doc 9705 Subvolume 5 to be proposed at ATNP/3. This working paper represented only a start of this activity and specifically considered: the addition of secure IDRP routing exchanges, the addition of multicast extensions, the addition of new air-ground subnetworks (i.e., HFDL, VDL Modes 3 & 4, and next generation AMSS) and the addition of an ATM ground subnetwork. Mr. Whyman indicated that although it was Eurocontrol that has proposed that an ATM subnetwork SNDCF be added to the ICS SARPs, further funding to support the validation of such had not been forthcoming. Therefore, it appeared uncertain that it would be practical to include this enhancement in the Package-2 ICS SARPs.

Mr. Jones indicated that it would be necessary for members to accept actions in order to seriously process the work for the ICS SARPs upgrades to support the Package 2 services and he hoped that initial draft proposed amendments to the ICS SARPs would be forthcoming for review at the next WG2 meeting in January 1999.

6.1 Security Mechanisms

Mr. Bigelow reported that WG1/SG2 has met one time since the prior working group meetings in Utrecht. The subgroup prepared a flimsy that was provided as a communiqué from the WG1 rapporteur to WG2 and WG3. The communiqué proposed that WG1 take on the responsibility for the definition of the cryptographic algorithm. He reported that one set of comments had been received against the draft security guidance material that was provided out of the Utrecht meeting. He also reported that there had been some additional participation at the recent WG1/SG2 meeting.

Mr. Jones raised the possible need for a new Doc 9705 subvolume on the subject of ATN security. Mr. Asbury indicated that he would not like to see the core ATN SARPs nor SV-1 include significant technical details related to ATN security and would support the idea of creating a new Doc 9705 subvolume for ATN security.

<Rapporteur's Note – WG1 subsequent approved creating a new Sub-Volume VIII for ATN security>

6.2 Systems Management

Mr. Moulton, chairman of the systems management sub-group, presented WP-475 providing a status report of the joint sub-group on systems management. He noted that a draft of version 1.0 of the

systems management concept of operations (conops) is available. He reported that this draft will be reviewed at the next joint sub-group meeting (i.e., the following week) and would hope that the outcome of the joint sub-group meeting would be a proposed baseline version 1.0 of the conops that would be presented to the working groups for review at the next working group meetings. He also reported that the sub-group is progressing work on the definition of the protocol architecture and on the definition of he managed objects for the applications and underlying communication stacks. In response to a question from Mr. Asbury, Mr. Moulton indicated that the sub-group's schedule is consistent with having systems management SARPs (Sub-Volume VI) and guidance material ready for approval at ATNP/3 in early 2000.

Mr. Moulton introduced WP-478, an information paper providing a draft of the ATN systems management concept of operations. The paper was not discussed by the working group.

Mr. Tamalet presented WP-468 proposing an ATN Summary MIB (SMIB). The paper described a general framework for the exchange of management information with a SMIB, a summary of the MIB services and a summary of the MIB structure and content. The paper included a draft proposal for the SMIB information to be provided by an ATN internetwork service provider and a global containment tree for the SMIB. The working group supported the concept of the SMIB. However, the contents of the SMIB, who has access the SMIB and how that access is provided are yet to be determined.

Mr. Schade reported that a working paper is being submitted to WG1 that raises issues with the organizational approach being taken for the development of ATN systems management requirements (i.e., a joint subgroup reporting to the joint working group). A copy of this working paper was also submitted to WG2 as WP-467. The combined WG2/WG3 group felt that the topic needed to be taken up by WG1 and then perhaps of the Joint Working Group if WG1 endorsed the issues raised by the working paper. The proposal was not extensively discussed by WG2 nor did WG2 express a position of the proposal.

<Rapporteur's note – the joint working group subsequently agreed for the system management subgroup to have reporting responsibility to WG1 although it will be supported also by WG2 and WG3>

6.3 Multicast/Broadcast Functions

Mr. Moulton presented WP-477 presenting overview text on CLNP multicast extracted from existing ISO material.

Mr. Moulton presented WP-476 describing the varieties of multicast service. The current ISO CLNP multicast service only supports the 'Open Group Membership' type of group membership described in WP-476.

The working group discussed how realistic it would be to complete the needed multicast related changes to the ICS SARPs and have completed validation by ATNP/3. The conclusion of the working group was it would not be possible to have fully validated draft SARPs for multicast ready for approval by ATNP/3. The working group has agreed the goal for ATNP/3 will be to have a proposal for an ATN multicast architecture with the actual proposal for the required technical changes to Doc 9705 ready for approval at a subsequent panel meeting.

6.4 Additional and/or revised SNDCFs for mobile and/or ground subnetworks

No working papers were presented under this agenda item.

6.5 QoS management functions

No working papers were presented under this agenda item.

6.6 ATN ICS Subsets

No working papers were presented under this agenda item.

6.7 Enhancements to the ICS SARPs/GM based on New or Revised User Requirements

No working papers were presented under this agenda item.

6.8 Enhancements to the ICS SARPs/GM based on Operational Experience

No working papers were presented under this agenda item.

7. Future Work Plan

7.1 Plans for 17th meeting of WG2

Mr. Jones presented WP-463, an information paper providing the details for the arrangements for the next working group meetings being hosted by the FAA in Honolulu, Hawaii, USA. The ATN CCB, working group and subgroup meetings will be held from 18-29 January 1999 at the:

Ala Monana Hotel
410 Atkinson Drive
Honolulu, Hawaii
Phone: +1 808-955-4811
Fax: +1 808-944-2974

Reservations should be made directly with the hotel by December 1, 1998. ATNP participants should indicate they will be attending the ATNP meeting being hosted by the FAA in order to get the discounted hotel rate of $99.00 per night, plus tax, for either a single or double room.

The working group indicated that 4 days should be planned for the next meeting. Therefore it was agreed that WG2 will meet from Tuesday through Friday: 19-22 January 1999.

The overall ATNP working group meeting schedule for the meeting in Honolulu are:

Day of Week	Session-1	Session-2
Monday PM 1/18	CCB-8	
Tuesday 1/19	WG2-17	WG3-15
Wednesday 1/20	WG2-17	WG3-15

Thursday 1/21	WG2-17	WG3-15
Friday 1/22	WG2-17	WG3-15
Saturday/Sunday		
Monday 1/25	WG1-14	WG3/SG1
Tuesday 1/26	WG1-14	WG3/SG1
Wednesday AM 1/27	WG1-14	WG3/SG1
Wednesday PM 1/27	WG1/SG2	JSG
Thursday 1/28	WG1/SG2	JSG
Friday AM 1/29	WG1/SG2	

The subsequent working group meetings will be held in:

May/June 1999: Location TBD
27 September – 8 October 1999: Location - Spain

8. Any Other Business

No working papers were presented under this agenda item.

ACTION 16/10: All WG2 members to review the needed enhancements to the ICS SARPs (i.e., Doc 9705, Subvolume 5) to support the planned 'Package 2' enhancements (e.g., new air-ground SNDCFs, secure exchange of routing information, etc.) and to submit proposals for revisions to Doc 9705 for review at the next WG2 meeting.

9. Conclusions and Action List

Open Action Items (including those from prior WG2 meetings)

ACTION 14/4: Mr. Moulton, the WG2 Point of Contact for ICS security, will coordinate with WG1/SG2 and WG3/SG3 to ensure the development of ICS security requirements consistent with the system level requirements and the definition of X.500/X.509 services being defined by these groups.

ACTION 15/4: Mr. Bigelow will provide information to the Bordeaux WG2 meeting on the status of Gatelink AEEC standards and industry implementation plans.

ACTION 16/1: Mr. Jones to inform WG1 of the position of WG2 relative to the WG1 rapporteur input documented in WP-464.

ACTION 16/2: Mr. Graf to provide an input to the CCB conveying the WG2 position on PDR 98090003 as described flimsy 2.

ACTION 16/3: Mr. Graf was to prepare a submission to the CCB to convey the WG2 inputs on PDR 98090010.

ACTION 16/4: Mr. Graf and Mr. Whyman are to prepare a PDR for submission to the CCB to provide clarification that it is only the final Deflate Data block that can be deleted.

ACTION 16/5: Mr. Graf to prepare a PDR to modify a note in the Doc 9705, Subvolume 5, to indicate there is a need for the Deflate decompressor to have the 32 KByte buffer but not the compressor.

ACTION 16/6: Mr Whyman to prepare proposed ICS changes to provide Package-2 enhancements derived from the proposal in WP-471 to address the issue of the possible negative effects that could results from rapidly changing mobile subnetwork connectivity.

ACTION 16/7: Mr. Whyman to prepared a PDR proposing modifications to the VDL SNDCF. The PDR should also indicate any needed changes to the VDL Mode 2 SARPs.

ACTION 16/8: Mr. Graf will draft a proposal, against PDR 98060006, for the detailed changes to the ICS SARPs to address items a, c and d in the recommendations of WP-471. Mr. Graf will coordinate the proposed changes with Mr. Whyman before submission to the CCB.

ACTION 16/9: Mr. Jones to submit flimsy 1 to WG1 and the CCB.

ACTION 16/10: All WG2 members to review the needed enhancements to the ICS SARPs (i.e., Doc 9705, Subvolume 5) to support the planned 'Package 2' enhancements (e.g., new air-ground SNDCFs, secure exchange of routing information, etc.) and to submit proposals for revisions to Doc 9705 for review at the next WG2 meeting.

Attachment 1

Agenda for the 16th Meeting of ATNP WG2
30 September – 2 October 1998 (Wednesday through Friday)
Bordeaux, France

Meeting Hours: 0900-1700

0. Meeting Organizational Issues

1. Approval of the Agenda (WP461)

2. Review and Approval of the report of 15th Meeting of WG2 (Utrecht) – WP462

3. Inputs/Issues from other ICAO Bodies (e.g., Panel Secretary, CCB, WG1, etc.)

4. Review Status of Action Items from the 15th Meeting of WG2

5. Package-1 ICS Documentation

   5.1 ICS SARPs (consideration of requests from the CCB and/or ICS SME).

   5.2 Additional Validation Results

   5.3 Implementation Plans

6. Package-2 ICS Documentation

   6.1 Security Mechanisms

   6.2 Systems Management

   6.3 Multicast/Broadcast Functions

   6.4 Additional and/or revised SNDCFs for mobile and/or ground subnetworks

   6.5 QoS management functions

   6.6 ATN ICS Subsets

   6.7 Enhancements to the ICS SARPs/GM based on New or Revised User Requirements

   6.8 Enhancements to the ICS SARPs/GM based on Operational Experience

7. Future Work Plan

   7.1 Plans for 17th meeting of WG2

8. Any Other Business

9. Conclusions and Action List

Attachment 2

ATNP WG2 15h Meeting
30 September – 2 October 1998
Bordeaux, France

LIST OF WORKING PAPERS

WP No.	Agenda Item	Presenter	WP Title
461	1	R. Jones	Agenda for the 16th Meeting of ATNP WG2
462	2	R. Jones	Report of the 15th Meeting of ATNP Working Group 2
463 (IP)	7.1	R. Jones	ATNP Working Group Meetings – January 1999
464	3	P. Hennig	Selection of ATN cryptographic algorithm
465 (IP)	5.2	T. Schade	Comparative Data Link Investigations planned by Deutsche Flugsicherung GmbH
466	6	R. Jones	Package 2 Impact on the Structure of the ICS SARPs
467	6.2	T. Schade	Proposal with Respect to Systems Management
468	6.2	S. Tamalet	ATN Summary MIB & ATN ICS Summary Management Information
469 (IP)	5.3	T. Whyman	Proposed Ground Network Design for the EuroVDL Project
470	5.1	T. Whyman	ATN SARPs Problem when supporting VDL Mode 2 Handoffs
471	5.1	T. Whyman	A New Solution to PDR 98060006
472	5.1	T. Whyman	ATN Internet SARPs Version Control
473	5.1	K-P Graf	SME V (ICS) Status Report
474	5.1	K-P Graf	Issues Raised on ICS SARPs
475 (IP)	6.2	J. Moulton	Joint Sub-Group on Systems Management Status Report
476	6.3	J. Moulton	Multicast Architecture
477 (IP)	6.3	J. Moulton	Multicast Architecture (2)
478	6.2	J. Moulton	Preliminary Draft Version 1.0 ATN System Management – Concept of Operations
479	6.1	M. Bigelow	WG1/SG2 Status Report
480	5.3	J-M Crenais	The Prototype NSAP Repository
481			
482			
483			
Flimsy **No.**			
1	5.1		Version Control in the ATN Internet SARPs
2	5.1		Proposed Resolution of PDR 98090003

Attachment 3

WG2 16th Meeting Attendance

Bordeaux, France – 30 September – 2 October 1998

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