

Report of the 20th Meeting of ATNP WG2
3 December 1999
Tokyo, Japan

16 December 1999 –Draft

0. Meeting Organizational Issues

Mr. Jones welcomed the working group members to the 20th meeting of WG2.

Mr. Kuzuya, the ATNP member from JCAB welcomed the working group to Tokyo and described the meeting arrangements and support facilities. Mr. Kuzuya introduced WP569 providing information welcoming the ATNP working group member to Tokyo.

1. Approval of the Agenda (WP553)

Mr. Jones introduced the proposed agenda, WP553. The agenda was approved with no changes.

2. Approval of the report of 19th Meeting of WG2 (Gran Canaria– WP554)

Mr. Jones introduced the report of the 19th meeting of WG2. The working group reviewed the report and approved it without any changes.

3. Review Status of Action Items from the 19th Meeting of WG2

Mr. Jones introduced the list of action items as described in the report of the 19th meeting (WP554). The following status was reported.

ACTION 19/1 – Mr. Jones to include an introduction to multicast architecture working paper within the WG2 Rapporteur's report to ATNP/3.

STATUS: Closed – included in draft rapporteur's report.

ACTION 19/2 – Mr. Graf, as Sub-Volume V editor, is to incorporate all revisions in the draft 3rd edition of Sub-Volume V as agreed at the 19th meeting of WG2 and submit to the third meeting of the IDG.

STATUS: Closed – updated draft of Sub-Volume V submitted to IDG

ACTION 19/3 – The IDG is to review the draft Sub-Volume V as submitted by Mr. Graf as well as other proposed revisions to Sub-Volume V associated with the WG2 authorized functional enhancements. The IDG is to prepare a revised, complete draft of the 3rd edition of Sub-Volume V for review at the 20th meeting of WG2, scheduled for 3 December 1999. The revised draft of the 3rd edition of Sub-Volume V is to be distributed electronically to the WG2 members 2 weeks in advance of the WG2 meeting.

STATUS: Closed – IDG updated draft provided to WG2 meeting

ACTION 19/4 – Mr. Jones to provide an updated WG2 Rapporteur's report for review at the December 1999 Working Group of the Whole meeting.

STATUS: Closed – updated rapporteur's report provided to WG2

ACTION 19/5 – All WG2 members to review PDR 99090002 and provide recommended Sub-Volume V changes to Mr. Graf.

STATUS: Closed

ACTION 19/6 - The IDG is to investigate the potential for combining the functions being indicated by the mobile subnet capability parameter.

STATUS: Closed – included in update Sub-Volume V draft

ACTION 19/7 - The IDG is to add the associated subnet loading to the mobile subnet transit delay requirement.

STATUS: Open -

ACTION 19/8 - Mr. Graf to correct the form of the ATN authentication parameter to include a length field.

STATUS: Closed via resolution of Action 19/6

ACTION 19/9 – Mr. Jones to raise an issue at the WG1 meeting in Gran Canaria of finding an acceptable approach across the sub-volumes to require 3rd edition conformant implementations to support the enhanced functions while at the same time providing recognition for implementations conformant to prior versions of Doc 9705.

STATUS: Closed – text added to Sub-Volume I. Also panel secretary took action at WG1 meeting to Tokyo to investigate keep prior editions of Doc 9705 as available ICAO documents.

ACTION 19/10 - Mr. Cardwell is to provide an updated proposal, based on WP545, to the IDG with direction for the IDG to review the revised proposal and to incorporate the appropriate provisions into the draft Sub-Volume V for submission to the WG 2 in December 1999.

STATUS: Closed with IDG submission

ACTION 19/11 - Mr. McParland to provide the missing IDRP related security material at the next IDG meeting and the IDG will provide a draft Sub-Volume V with complete security provisions for review at the December 1999 WG2 meeting in Japan.

STATUS: Closed – material provided to IDG

ACTION 19/12 – Mr. Cardwell will further investigate the issue reported in WP546 and submit draft guidance material to IDG if appropriate.

STATUS: Closed – may be addressed post-ATNP/3

ACTION 19/13 - The IDG is to investigate backward compatible approaches for allowing enhanced SNDCF compressions mechanisms to be added in the future.

STATUS: Closed – proposed approach provided in draft Sub-Volume V

ACTION 19/14 – Mr. Tamalet agreed to review the AEEC documents 631A and 637A, to be provided by Mr. Hennig, and if there are SARP related issues he will prepare a submission to the WG2 meeting in December 1999.

STATUS: Closed – Working paper provided to WG2 meeting

ACTION 19/15 - Mr. Graf to update the draft Sub-Volume V to indicate that unassigned values of the CLNP and IDRP security parameters are reserved.

STATUS: Closed – included in updated Sub-Volume V

ACTION 19/16 – The IDG is to investigate how to accommodate mobile subnetworks with a Leave Event latency of greater than 600 seconds.

STATUS: Closed – address in updated Sub-Volume V draft provided to WG2

ACTION 19/17 – Ms. Ricci will serve as the coordinator for the completion of the validation report and to prepare a coordinated draft for review at the 3 December 1999 WG meeting. :Mr. McParland will support this activity.

STATUS: Closed – Update validation report provided to WG2

ACTION 19/18 – Mr. Moulton to review prior working papers on multicast that he produced as well as WP460, submitted by Mr. Whyman, and prepare the proposed ATNP/3 working paper for review at the WG2 3 December 1999 meeting in Japan. The working paper is to be electronically distributed to the WG2 members at least 2 weeks prior to the WG2 meeting.

STATUS: Closed – prior WPs reviewed and multicast WP updated

ACTION 19/19 – Mr. Jones to provide communiqués to WG1 based on the draft communiqués in WP536, Flimsy 1 and Flimsy 3

STATUS: Closed – Communiqués provided to WG1

ACTION 19/20 – Mr. Jones to provide the communiqués contained in WP 535a and WP540 to the secretary with a request that they be conveyed to the AMCP. Mr. Jones to also provide an informal copy of WP540 to the AMCP Working Group rapporteur and/or VDL Mode 2 subgroup chairman.

STATUS: Closed – Communiqués provided to AMCP via panel secretary

4. Report of the ICS Drafting Group (IDG) and the Panel Secretary

Mr. Paydar presented WP560 providing a report of secretary. He reported that ATNP/3 will be convened 7-18 February 2000. He also encouraged inputs on future work beyond ATNP/3. He reported that 2nd edition of Doc 9705 will be published 10 December 1999 and the ATN guidance document (i.e., Doc 9739) will probably be published in January 2000. He presented the agenda for ATNP/3 consisting of 6 agenda items.

Mr. Cardwell presented WP559, the report of the IDG. He reported that one meeting of the IDG had been held since WG2/19 in Spain. The IDG had progressed the draft 3rd edition of Sub-Volume V. The results of the IDG meeting are presented to WG2 for review in the form of working papers. He reported on the status work with emphasis on the actions given to the IDG by WG2.

Mr. Cardwell presented WP563 reporting on the status of the IDG work items. He reported on the progress made by the IDG against each work item assigned by the IDG by WG2. He also reported on the status of each of the individual ICS enhancements being progressed by the IDG. Most of the enhancements had been incorporated into the draft 3rd edition of Sub-Volume V.

5. Review draft Sub-Volume V, 3rd edition as submitted by the IDG

Mr. Graf presented WP558 the SME V status report. He reported on the PDRs that have been processed by the CCB against the Sub-Volume V. He reported there are currently 4 proposed PDRs that were to be addressed the CCB the second week in Tokyo and expected all 4 to be closed by the CCB. All of the 39 PDRs submitted during the prior 31 months have been closed except for these 4 recent PDRs. There were no open PDRs requiring an input from the working group.

Mr. Graf presented WP564, the change control log for draft edition 3 of Sub-Volume V, along with WP557, the draft edition 3 of Sub-Volume V. WP564 documented the source of all enhancements incorporated into the draft edition 3 (from the edition 2 baseline). He presented all of the changes introduced since the prior WG2 meeting. At rapporteur's request Mr. Cardwell explained the newly introduced mechanism to suppress unnecessary issuance of join and leave events. Mr. Tamalet indicated he had some issues with the proposed Sub-Volume V provisions and suggested an IDG meeting be convened to discuss the issues. The working group decided to have an ad hoc working group sessions the second week in Tokyo to discuss/resolve the issues and to make any necessary updates to the draft Sub-Volume V as submitted to ATNP/3 out of the second week's Working Group of the Whole meeting. Mr. Graf noted the new mechanisms that have been added to support pre-stored Deflate dictionaries and the Deflate Maintenance Parameter requires a version roll for the mobile SND CF. A means had been defined for a version 2 mobile SND CF to revert to version 1 in the case where the peer mobile SND CF only supports version 1. Mr. Graf noted the planned ad hoc WG2 session could also review the APRLs to potentially introduce new entries to reflect the new features of the mobile SND CF. Mr. Graf noted that a placeholder paragraph has been added to the draft edition 3 of Sub-Volume V for a new SND CF for next generation mobile subnetworks. He noted that WP560 into the meeting provided draft text that could ultimately be added at to define the technical provisions for this new section. Mr. Graf asked Mr. Parland to introduce the enhancements for security that were incorporated into the draft edition 3 of Sub-Volume V. Mr. McParland did a brief walk-through of the IDR P related security provisions. There were two *tbds* in the draft security area of the provisions having to do with the definition of field sizes. Mr. Parland noted he was still investigating the correct size of these field.

Mr. Jones introduced WP566, a communiqué from the rapporteur of AMCP WG-A. This was provided in response to a communiqué from WG2 out of its 19th meeting. The working paper raised one fundamental technical issue as well as issues of terminology. The working group agreed to make one terminology change in SV-5 to use the term "delay" rather than "latency" when describing the maximum time for the issuance of leave events. Also the working group agreed to re-define the meaning of the associated requirement to allow for mobile subnetworks that will only discover loss of subnet connectivity by their inability to deliver a data packet that has been received from the router, rather by the use of internal discovery mechanisms such as use of 'keep alives'. Mr. Graf agree to propose a change to SV-5 and present it at the second week's ad hoc WG2 session.

Mr. Tamalet presented WP567 describing a requirement to further specify the interface between subnet ground stations and the attached air-ground BIS. The concern raised by this working paper is the need to have a one or more standard ground interface(s) specified for the mobile subnetwork access. A number of members express some concern with having ICAO globally standardize the detail of this interface. The issue reported was where VDL subnetwork ground station vendors are offering different interfaces forcing the air-ground BIS to support multiple types of interfaces. The working group noted the concern expressed in the working paper but felt that this should be introduced within AMCP before further consideration by ATNP WG2.

Mr. Cardwell presented WP570 offering proposed provisions for a frame mode mobile SNDCF. WG2 agreed this WP should be submitted to ATNP/3. However they also recognized that it will require further development and validation before it can be included with Sub-Volume V. Mr. Cardwell agreed to draft a cover working paper for review at the WGW meeting. Also Mr. Cardwell also agreed to provide a cover communiqué to AMCP WG-D to submit the WP for their review. This communiqué is was provided to WG2 as flimsy and approved.

Mr. Graf presented WP565 presenting the status of the guidance material corresponding to the 3rd edition of Sub-Volume V enhancements. The working group accepted that WP565 will be used as the basis for the future development of the guidance material.

Mr. Tamalet indicated that he had a number of questions and issues with the draft Sub-Volume V that had not been provided to the working group in the form of a written input. Due to a lack of time the working group was unable to address these during the Friday, 3 December session. Further abbreviated WG2 sessions were convened the second week in Tokyo on Monday, Wednesday and Thursday where Mr. Tamalet's concerns were addressed. Following the first WG2 session, Mr. Tamalet had met with Mr. Graf and Mr. McParland to review his questions/issues and Mr. Graf prepared a revision to the draft Sub-Volume V that included certain proposed changes that addressed Mr. Tamalet's concerns. This revised draft of Sub-Volume V also was used as the vehicle for Mr. Graf to propose correction/enhancements responding to actions taken by Mr. Graf during the first meeting session. Also Mr. McParland prepared a set of proposed security related provisions that were reviewed by the working group during the 9 December session and Mr. Graf was requested to incorporate the approved changes into the draft 3rd edition of Sub-Volume V and provide the updated draft to the WGW and the panel secretary for review at ATNP/3.

6. Review draft Sub-Volume V validation report

Ms. Ricci presented WP561, the draft validation report for the third edition of Sub-Volume V. She indicated that she had received some information on the Mitre ICS validation activities, but not yet reflected this input in the draft validation report. She indicated inputs were needed for the other validation activities. Mr. McParland indicated he would provide inputs on the FAA Technical Center ICS validation activities. The group concluded that the conclusions section of the validation report should be re-written for ATNP/3 and later revised for the mid-2000 meeting to reflect the final validation results. The validation report was to be submitted to the WGW meeting the second week in Tokyo for consolidation with the other validation reports for submission to ATNP/3.

7. Review proposed Working Papers to ATNP/3

Mr. Jones presented WP556 listing the expected WG2 inputs to the WGW and to ATNP/3. The working group noted some updates to the working paper were needed.

Mr. Jones introduced WP563 on Multicast Architecture that had been submitted by Mr. Moulton. There were a number of editorial comments on the working paper. Mr. Jones provided these to Mr. Moulton and the paper was corrected and submitted to the Working Group of the Whole meeting the second week in Tokyo.

8. Any other Business

Mr. Tamalet introduced WP568 as information to WG2 on the proposed systems management provisions. The working group noted this work.

Responding to a query from the rapporteur the working group 2 members expressed a desire for the IDG to continue progressing SV-5, the guidance material and validation report between the 20th meeting of

WG2 (i.e., in Tokyo) and the proposed post-ATNP/3 WG2 planned for mid-2000. Furthermore the WG2 members expressed a desire to convene the 21st meeting of WG2 preceding the planned mid-2000 WG2 meeting.

ATTACHMENT 1

**Agenda for the 20th Meeting of ATNP WG2
3 December 1999
Tokyo, Japan**

0. Meeting Organizational Issues
1. Approval of the Agenda (WP553)
2. Approval of the report of 19th Meeting of WG2 (Gran Canaria– WP554)
3. Review Status of Action Items from the 19th Meeting of WG2
4. Report of the ICS Drafting Group (IDG) and the Panel Secretary
5. Review draft Sub-Volume V, 3rd edition as submitted by the IDG
6. Review draft Sub-Volume V validation report
7. Review proposed Working Papers to ATNP/3
8. Any other Business

ATTACHMENT 2

ATNP WG2 20th Meeting
3 December 1999
Tokyo, Japan

LIST OF WORKING PAPERS

WP No.	Agenda Item	Presenter	WP Title
553	1	R. Jones	Agenda for the 20th Meeting of ATNP WG2
554	2	R. Jones	Report of the 19th Meeting of ATNP WG2
555	7	R. Jones	WG2 Rapporteur's Report to ATNP/3
556	3	R. Jones	Status of WG2 Inputs to ATNP/3
557	5	K-P Graf	Draft Sub-Volume V, Third Edition
558	5	K-P Graf	SME V (ICS) Status Report
559	4	B. Cardwell	WG2/IDG-3 report
560	4	M. Paydar	ATNP Secretary Report
561	6	C. Ricci	Draft Sub-Volume V Validation Report
562	7	J. Moulton	Multicast Architecture – proposed final draft
563	4	B. Cardwell	IDG Work Items Status Report
564	5	K-P Graf	Change Control Log for Draft Edition 3 of Sub-Volume 5
565	5	K-P Graf	Status of ICS Guidance Material
566	5	R. Jones	AMCP/WG-A Communiqué to ATNP/WG2
567	5	S. Tamalet	Requirement for a standard on the ground interface to mobile subnetworks
568 (IP)	8	J. Moulton	ATN Systems Management Provisions
569 (IP)	0	S. Kuzuya	Welcome to Tokyo
570	5	B. Cardwell/ T. Whyman	Proposed SARPs for a frame mode mobile SND CF
Flimsy No.			
1	5	B. Cardwell	Proposed communiqué to AMCP regarding VDL mode 3 frame mode
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WG2 20th Meeting Attendance

Tokyo, Japan - 1 December. 1999

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Aeronautical Telecommunication Network Panel (ATNP)
Working Group 2
Tokyo, Japan
3 December 1999

Proposed
Communiqué to AMCP WGD regarding VDL Mode 3 – Frame Mode

ATNP WG2 previously raised an issue in communiqués to AMCP on the need to support stream mode compression in conjunction with the proposed frame mode of VDL Mode 3. This communiqué reflects the results of additional deliberations of ATNP WG2 that have raised a number of additional related issues that need to be considered by the AMCP when the frame mode of VDL Mode 3 is proposed within the context of ATN systems supporting ATS communications. As indicated in the previous communiqués from ATNP WG2, support for stream mode compression is considered an essential capability for supporting the efficient use of the limited capacity of any mobile subnetwork. Work is underway within ATNP to define enhanced modes of stream compression that will provide increased levels of data compression. Enhancements to the ATNP technical provisions are planned to permit the future extensibility and the negotiation of the enhanced stream compression features. In reviewing the proposals from the AMCP on the frame mode of VDL Mode 3, ATNP WG2 has noted that while this approach has a number of attractive features substantial additional functionality would be required in order to provide a level of service that is equivalent to the already defined ISO 8208 based mobile subnetwork solution. Specifically, ATNP WG2 believes that some connection aspects are needed above the frame mode in order to fully support the use of the envisioned stream compression techniques. The attached ATNP WG2 working paper describes one candidate approach for such a protocol that could potentially be incorporated, along with the stream compression provisions, within a router's SNDCF for use with a VDL Mode 3 Frame Mode subnetwork. Although this approach would potentially keep the provisions of the VDL Mode 3/frame mode subnetwork avionics and ground systems relatively simpler than for an ISO 8208 based solution, it would require VDL Mode 3 specific additional functionality within ATN airborne and air-ground routers. AMCP may wish to consider the need for VDL Mode 3 to support both ISO 8208 based and Frame Mode subnetwork access approaches

ATNP WG2 requests that AMCP WG-D:

- review the attached working paper and provide feedback to ATNP WG2 on the proposed provisions associated with the use of the frame mode of VDL Mode 3; and
- provide inputs to ATNP, via the panel secretary no later than 1 February 2000 so that AMCP inputs can be consider at ATNP/3 in preparing the future working group tasking.