

ATNP WORKING GROUP 3 - EIGHTEENTH MEETING

1 - 3 December 1999

Tokyo, Japan

DRAFT REPORT

Agenda Item 12: Any Other Business

Draft Report of the 18th meeting of WG3 (Tokyo)

(Presented by M J Asbury)

1. INTRODUCTION

1.1 The 18th meeting of the ICAO Aeronautical Telecommunications Network Panel Working Group 3 was held in the Shinagawa Prince, Tokyo, from 1 – 3 December 1999. The meeting was chaired by the WG3 Rapporteur, Mr M J Asbury, and was attended by some 21 Members from 7 States and 2 International Organisations.

1.2 The attached paper constitutes the Draft report of the meeting.

2. RECOMMENDATION

2.1 Members are recommended to review and correct the attached Report.

REPORT OF THE 18TH MEETING OF THE AERONAUTICAL TELECOMMUNICATIONS NETWORK (ATN) WG3 - (ATN APPLICATIONS AND UPPER LAYERS), TOKYO, JAPAN, 1 – 3 DECEMBER 1999

1. INTRODUCTION

1.1 The 18th meeting of the ICAO Aeronautical Telecommunications Network Panel Working Group 3 was held in the Shinagawa Prince Hotel, Tokyo, Japan, from 1 – 3 December 1999. The meeting was chaired by the WG3 Rapporteur, Mike Asbury, and was attended by some 21 Members from 10 States and 2 International Organisations. 40 Working Papers (WP) were presented. A copy of the Agenda for the meeting is at Appendix A, the list of attendees is at Appendix B, and the list of Working Papers is attached at Appendix C.

1.2 Those presenting papers, replying or commenting included –

Mike Asbury (MA)	Jim Lenz (JL)
Thomas Belitz (TB)	Jim Moulton (JM)
Mike Bigelow (MB)	Gerard Mittaux-Biron (GMB)
Frederic Picard (FP)	Claude Leclerc (CL)
Jean-Yves Piram (JYP)	Manfred Okle (MO)
Paul Hennig (PH)	Greg Saccone (GS)
Jean-Marc Vacher (JMV)	Steve Van Trees (SVT)
Tony Kerr (TK)	Danny Van Roosbroek (DVR)

1.3 The meeting was hosted by JCAB, and Mr Kuzuya welcomed the members to Tokyo. On behalf of the members, MA thanked Mr Kuzuya for the organisation and the setting up of the meeting.

2. AGENDA ITEM 1 - REVIEW/APPROVE MEETING AGENDA

2.1 The meeting approved the agenda.

3. AGENDA ITEM 2 - REVIEW REPORT AND ACTIONS OF THE 17TH MEETING OF WG3 (GRAN CANARIA)

3.1 The completed report of the 17th meeting had not been available to members prior to departure. However, it had been available the next day, and MA had circulated copies by e-mail to all attendees. There had been no comments, adverse or otherwise.

3.2 All actions were satisfactorily completed unless otherwise noted below. Paragraph numbers in parenthesis relate to the notes of the 17th Meeting.

(7.20) SVT regretted that the paper on Application Relay implementation had not been prepared.

(7.57) Paul Camus had not completed this action, since the ATMCP Working Group had not yet held another meeting.

(7.58) SVT noted that a Certification paper was being prepared by/for SC189/WG 53 – he would make this available on completion.

(10.2) SVT had subsequently prepared a paper at Gran Canaria that took care of this action.

4. AGENDA ITEM 3 - REVIEW STATUS/OUTCOME OF RELEVANT MEETINGS -

3.1 ADSP/5 Meetings (M J Asbury)

4.1 MA reported on the recent ADSP/5 meeting held in Montreal. There were several points arising from this meeting which particularly affected the work of SG 2. There would be reported in greater detail in Agenda Item 4.2 below. A brief note of the meeting is attached at Appendix D.

3.2 ATN CCB meetings (S Van Tree)

4.2 The CCB had yet to meet. However, there had been significant activity, and SVT gave an overview of progress. The 2nd Edition of Doc 9705 Closed in May 1999 with 174 PDRs adopted. The second Edition was now available on the CENA server. The objective of the WGW was to allow MP to go back to Montreal with a draft Version 3. There was not so much CCB activity concerned with PDRs – more was concerned with document control and production.

4.3 MA asked what was happening concerning PDRs raised by the Petal Integration Team work. SVT said that they would be reviewed as with all other PDRs, but PIT had aggressive timescales, and tended to come to their own conclusions ahead of the CCB review process. They had their own CCB. SVT thought that whatever the future development of ATNP activities post ATNP/3, there would be work for a CCB-type organisation for some time to come, and looked for State support accordingly.

3.3 ICAO/ANC activities (M Paydar)

WP 09 – ICAO Update

4.4 At an informal joint meeting convened with WG 1 for ease of presentation, MP provided an update of recent developments in ICAO relevant to the ATNP. Paul Camus has been nominated by ICCAIA as their member. The ANC agreed that ATNP/3 be held in Montreal from 7 to 18 February 2000. The ANC also agreed that new technical specifications and guidance material be tabled at the meeting in English only. New material for ATNP/3 should be finalised by the WGW meeting and submitted to MP in Tokyo under the cover of brief working papers presented by Rapporteurs of working groups 1,2 and 3. As a last resort, if material was not quite ready, there was a final cut-off date of 8th January '00. However, any arrangements made here should not preclude any States submitting papers under their own aegis.

4.5 The Second Edition of *The Manual of Technical Provisions for the ATN* (Doc 9705) which incorporated all changes proposed by the CCB to date, is scheduled for publication on 10 December 1999. Regarding *The Comprehensive ATN Manual* (Doc 9739 - AN/961) (CAMAL), MP and SVT would mark up all changes in the master copy during this round of meetings in Tokyo so that the document can be published in January 2000.

4.6 At the Panel meeting, a new Doc 9705 will be composed of the redline/strike out updates of existing material as produced/presented by Rapporteurs along with new material also presented by Rapporteurs. This will allow Panel attendees to have a new Edition 3 to take away. But MP will not change edit and reprint this until after the WGW meeting, when all the material will have been finalised.

4.7 The current work programme of the ATNP would be complete upon the finalisation of SARPs and guidance material on systems management and security. Members are invited to submit WPs for ATNP/3 indicating what ATN-related work needs to be done and in what time frame. Such material will help the ANC decide on the best mechanism to progress the work post ATNP/3. MP seemed to think that there was a strong possibility that the Panel would not continue in its present form, but might revert to a Study Group, or something like that. His lack of enthusiasm for the Panel future was slightly demoralising, since members perceived a significant amount of ongoing/future work.

4.8 MP voiced two additional worries – firstly, Standards had been produced, and States should adhere to these Standards or file a difference. But this seemed to be falling apart for WG3 (Air/Ground) applications – non-standard implementations were taking place and non-standard subsets were being used, all without differences being filed. Secondly, regarding Security, MP noted that Bernard Ramsey, in his FAA-based brief on Security to the ANC, had indicated that security might not be compulsory – there could be a mixed environment. MP said that the ANC could not accept this – there might have to be a sunset date. It should be the responsibility of the ATNP to propose a Sunset date.

4.9 Concerning Standards, MA, JYP and DVR all drew his attention to the PICS – this allowed a flexibility of implementation while still being SARPs compliant. MA pointed out that this was not dissimilar to ILS, where there was a Standard for CAT III, but not every ILS implementation had to be to Cat III standards. MP felt that if this was the case, then there should be a note in the core SARPs to this effect. Ron Jones agreed to prepare an insert, as part of his SARPs revision programme.

4.10 Ron Jones said that the question of sunset dates had been discussed earlier – it was really considered to be an institutional issue. The key this week was to decide explicit text for SARPs – sunset could wait. We already had cover for this – ‘Security provisions may be implemented on a State or Regional basis.’ PH said that IATA would have difficulty supporting sunset dates in SARPs – it really was a regional thing. MA said that he had a problem with the mandating of the installation of security in order to achieve Version 2/Edition 3 upgrade benefits. He did not see why it should be bundled. Users should have the option to install now or later, and he did not see the need for security to be bundled with operational application enhancements. There was some preliminary skirmishing round this topic – it was agreed that this would be discussed in a later joint session.

4.11 TK said that MP had indicated that Edition 3 of Doc 9705 would supersede Edition 2, which would be withdrawn, and would not be able to be purchased. He asked about the status of implementations which were Edition 2 compliant, perhaps not wishing to implement Edition 3 enhancements – how would documentation compliance be carried out? JYP said that this problem was to an extent the result of the new ICAO SARPs procedures – for the last 40 years, SARPs were SARPs – now we have technical Manuals – can we file a difference against them? MP said we could, (but at present there is no procedure – Catch 22 situation!)

4.12 MP would go back and investigate the possibility of having two versions of Doc 9705 existing in parallel, and Ron Jones would put a note in the SARPs saying that States would not be required to implement all functionalities.

3.4 ATNP WG 1 (Paul Hennig)

4.12 PH was unable to give his report to WG 3, since the WG 1 meeting was running concurrently. However, a formal joint WG1/WG3 meeting was convened to review common topics.

4.13 JOINT WG1/WG3 MEETING – 2 DECEMBER 1999

4.13.1 This meeting was jointly chaired by PH and MA, with PH doing most of the talking. The agreed agenda was –

1. Withdrawal of ISO Standards
2. Timestamping
3. Security
4. Sunset dates

WP 29 – Possible Withdrawal of ISO Standards

4.13.2 TK introduced this paper. From its inception, the ATN has been based on the international standards for Open Systems Interconnection (OSI), developed *inter alia* by the ISO. Many of these standards are mature, and are subject only to a maintenance function, to handle defects and ensure currency. This maintenance function could cease for many of the ATN-used standards in 2000 due to lack of funding for an editor. This could lead to the situation where the ATN Technical Provisions refer to Standards Documents that no longer exist. This would make implementation impossible in principle. He proposed a range of solutions.

4.13.3 MA said that this paper should go to the ICAO ANC. We would not be the only Panel whose work could/would be affected, and the problem was far wider than just our work. MP agreed – it should be presented under Agenda Item 5 (AOB) at the Panel – he didn't see any reason why ICAO should not approach the ISO and come to some mutually beneficial arrangement. JM suggested that where possible, standards should be re-referenced to ITU-T standards – he appreciated that this was

a non-trivial task, but it was almost purely secretarial, once the correct mappings had been identified. PH said that this would be post ATNP/3, definitely.

4.13.4 SVT said that was an OK policy where there were two equivalent standards – but in some cases there were not. Withdrawal of support for these standards meant that ATNP (and hence ICAO) was vulnerable. MP asked whether the CCB could possibly be made responsible for Standards maintenance. Klaus Platz thought that this was unrealistic – the CCB was a function of the ATNP – not a body in its own right, and ICAO already had a possible problem with the role of the States post ATNP/3. MP said that two issues had actually been highlighted – the need to approach ISO, and the question of ‘Future Work – Maintenance of Documents’.

4.13.5 MA craved DVR’s indulgence as to whether he could fund TK to prepare the necessary papers for ATNP/3, and whether it/they could be tabled by Eurocontrol. DVR said that he would fund the preparation of the papers, but the presentation decision was not his to make – the Eurocontrol Expert was Eike Meyenberg, and his would be the final decision. However, DVR would thoroughly brief him on the problem. But he was reasonable confident that they would be able make the necessary presentations.

Timestamping

4.13.6 PH noted that in Eurocae Document ED 70, there was a requirement for 0.25 second accuracy – how did this sit with our requirement, through ADSP, for one second. Were we too liberal, and was there a need to change. DVR asked what would be the cost of this, and, anyway, where had the requirement for one second come from in the first place? Ron Jones said that quarter second timing would almost certainly imply GPS-related timing, but one-second accuracy could be achieved using other methods not requiring a certificated GPS fit in the aircraft (and on the ground).

4.13.7 SVT wearing his certification hat did not see the need to tighten up the one-second accuracy. JM said that there had always been a one-second accuracy requirement in the SARPs until a common core SARPs was prepared – then the requirement was unilaterally discarded for some reason not known to present company. SVT said that the FLIREC Panel requirements were just that the flight data recorder must be synchronised with the Cockpit Voice Recorder – they suggested using the same time source – but they had not specified an absolute accuracy.

4.13.8 The meeting generally was of the opinion that there was no need to change the current specifications – if a higher level of accuracy was subsequently seen to be required, a PDR could be raised and the appropriate action taken.

Security Matters

4.13.9 MA put forward some of the points already aired in WG 3 (see the discussion under Agenda Item 4.3 below, which actually took place before this joint meeting). PH asked, if Security was bundled with Edition 3 enhancements, how many applications would be truly affected, excluding CM. There were in fact four, since AMHS could be affected. MB said that to assume that enhanced applications would be available before 2007, and security would not be implemented before 2010 was pure crystal ball gazing. We had to recognise that certain activities associated with data link should not be done without security.

4.13.10 SVT said that if Security was not bundled with Edition 3 enhancements, then there would be additional costs of multiple software certification. MA agreed that that would be so, if indeed security was invoked globally more or less at the same time – but he did not think that this would be the case. DVR said that at this stage we could not decide whether global security was needed he thought that this would be up to the industry to decide where and when it should be used. PH said that using was not the question – implementation was the point. SVT reiterated the Security mantra – Implementation Mandatory, Use Optional. DVR said that to him, optional meant that the vendor had the option whether or not to include it in Package 2.

4.13.11 Ron Jones said that Security was always in the package - it was just not included in the early work. He thought that we could end up in a chicken and egg situation – if it was optional, then airlines, having not implemented it initially on the ground of cost, would ask for implementation to be

deferred on the ground of cost of retro-fitting. The real question is – do we need security and if so, when? Jim Lenz said that the US position was that security was required, and the sooner the better. DVR reminded the meeting that mandatory security had been shot down at the Toulouse Sofitel meeting in 1995 – we had better be mighty sure that we had got it right and could justify the expense.

4.13.12 PH was worried that we had reached an impasse – that we would get to the Panel meeting without agreement, and that there would be blood on the floor, and the ANC would see yet again that the ATNP could not reach agreement. MA said that he had done his best to make the meeting aware of the problems and consequences of the bundled (non-optional) introduction of Security, and he would accept the majority view of the meeting. He asked that the covering paper for the SARPs should indicate that the introduction of SV 8 had been widely discussed. Klaus Platz, as putative Chairman of ATNP/3, said that he could not accept such a qualifier – it implied disagreement and disharmony, which would be obvious to other Panel members. The SV had to go in as standard, or not at all.

4.13.13 MA then asked the meeting if any State expert would speak against the SV at the Panel. It eventually appeared that none would – MA himself could not, since he was not the UK Panel member anyway. He therefore agreed that he would go along with the consensus view, and the SV would be submitted unqualified, safe in the knowledge that no member of this meeting would disagree with its contents and overall effect on other applications.

Sunset Dates

4.13.14 Discussion of this topic was mercifully brief – PH said that as far as he was concerned, it was an institutional matter, and should go to the ANC. Ron Jones that it should be up to the ANC to come back to us if they wanted technical advice – in any case it was post-ATNP/3 work, with which the meeting agreed.

5. AGENDA ITEM 4 - REVIEW OF SUBGROUP WORK, LATEST MEETINGS AND OUTPUT FOR WGW & ATNP/3

4.1 SG 1 - Ground-ground Applications

[WP 5 – ATNP/WG3/SG 1 Activity]

5.1 JYP gave a verbal briefing, reading from soft copy, since the paper had been held up in production, and was not available to the whole meeting. The latest meeting of the SG was held in Gran Canaria from 1 – 5 November. there were three main work programme elements – production of the ATSMHS Extended Service SARPs, production of the CIDIN/AMHS Gateway material and approval of the Directory. In addition, revisions to Annex 10 requested by MP were also discussed.

5.2 With regard to ATSMHS SARPs, the new version of the material was discussed in detail. It was subsequently amended in the light of comments received, and is available to the WG as WP 16.

5.3 The CIDIN/AMHS Gateway material is well advanced. This document mixes SARPs and Guidance Material, and is in effect a stand-alone document. It will be split – this is just editorial, and will be included in the SV 3 enhancements – unfortunately it is in Word 6, and requires conversion – a non trivial exercise, given the pictures in it. A drafting group met in Toulouse for three days, carrying out a line by line review (JYP thanked JMV and MO)

5.4 The Directory (see Agenda Item 8 below) was reviewed in detail after the Gran Canaria work. There was a special Directory meeting by telephone, with JMV and Manual Garcia talking to JM. As a result of these discussions, a paper was also sent to the Security Subgroup meeting.

5.5 Concerning the work programme elements first outlined at the Langen meeting, almost all the elements are complete. The CIDIN/ATN gateway will be a subset of the SARPs – it's 85% complete now, and will be 100% complete by Montreal ATNP/3. The Guidance Material for the AMHS needs work – it will be enhanced post ATNP/3 for the WGW. But we should rest assured that SARPs, GM and Validations reports will be available for both applications. The PICS/OICS for the AIDC is almost finished, only requiring editing to bring it into line with the air/ground material. The Annex 10 review of

the CIDIN material is basically complete another SG meeting is not contemplated, but an ad hoc drafting group may be required, depending on MP's comments.

5.6 JYP said that this concluded his report on the SG 1 activities.

WP 16a – SV3.1 – Extended Service ATSMHS SARPs

5.7 JMV introduced this significantly upgraded version of the ATSMHS SARPs. The upgrade includes the addition of security features in line with the overall ATN framework, use of the ATN Directory, additional features and message formats and inclusion of a specific CIDIN/ATN gateway. JMV went over the enhancements in detail, there being no point in repeating previous material. He only had one real question of the WG – he had included a means to ensure Canonical encoding, since by its very nature of operations the AMHS uses application relays. The WG accepted the requirement. of additional constraints on the BER encoding.

5.8 JMV thought that the Standards used in SV 3 were consistent and maintainable, at least as far as he could judge.

WP 16b – SV3.1 – Extended Service ATSMHS Validation Report

5.9 JMV submitted this standard validation report. Partial implementation validations have been carried out, including directory compatibility, but so far there has been no validation involving Security.

[WP 16c – SV3.1 – Extended Service ATSMHS GM]

5.10 JMV said that Guidance Material for this version of the SARPs required updating – it should be available for Montreal, although a better version is expected to be available for the post ATNP/3 WGW.

5.11 The WG, having reviewed the material, accepted it for presentation through the WGW to the ATNP/3 (but see below).

WP 17a – CIDIN/AMHS Gateway SARPs

5.12 This paper was presented by MO. The Gateway will allow interworking between users of the CIDIN and users of the ATN, thus allowing the transport of AFTN, OPMET and CIDIN operator messages over the ATN Internet. The SARPs are presented as a plug in to WP 16a above, as section 3.1.2.4. MO confessed that there was still a little work needed, which would be completed to allow the completed document to be presented to MP by 8th January '00. In addition, the work was still in Word 6 format, and required conversion. MO went through the cover paper in some detail, highlighting important aspects of the work.

5.13 MA agreed to intercede with MP on MO's behalf concerning late delivery, and secured MP's approval as long as the material was with him by 8th January.

[WP 17b – CIDIN/AMHS Gateway Validation Report]

5.14 MO reported that there was no validation activity during the development of the Gateway. Due to the revision of the CIDIN SARPs, all known CIDIN implementations are on hold at present, and are not likely to be commenced before the post ATNP/3 WGW. However, there is no technical risk, since the Gateway is mainly composed of functional blocks already earlier specified and forming parts of operational systems. Therefore validation activities in the timeframe of ATNP/3 will be by inspection only.

WP 17c – CIDIN/AMHS Gateway Guidance Material

5.15 This has been prepared, and was attached within WP 16 for distribution. It is not quite editorially correct, requiring the illustrations to be embedded, and it also needs to be converted into WordPerfect. But it is expected to be ready for ATNP/3

5.16 With the caveats mentioned by MO, the WG accepted the material for onward progress to ATNP/3 through the WGW meeting.

5.17 At this point MA wiped the smile off JMV's face by asking if the two parts could be put together, so that only one document would be presented to the WGW meeting – a completed (almost) section 3.1. JMV was extremely hesitant about this – the conversions were non-trivial, with a lot of work required to check all paragraphing, tables etc. After considering it overnight, and with the promised help and support of TB, he thought he could possibly have it done by sometime on the 7th (Tuesday). MA was very grateful – it would greatly simplify proceedings.

5.18 Finally on this topic, JYP reminded the meeting of the Russian interest in CIDIN – he had written to Sergei Nersessian, the Russian member, keeping him apprised of the work going on. He would probably forward him a copy of the material as a courtesy before the Panel Meeting.

WP 18 – Amendment to Annex 10 for inclusion of AMHS and AIDC

5.20 JYP reminded the WG that MP had asked SG 1 to prepare an amendment to Annex 10 aimed at including AMHS and AIDC, and to propose refinements where appropriate. He said that although the SG had only been asked to make amendments to Annex 10 Vol. II, they soon saw that amendments to Vol. III were also required, and these have been included in the paper.

5.21 The SG had identified earlier that the specification for CIDIN in the SARPs was not the operational one – it would not work in the form given. The European Regional office of ICAO had prepared a CIDIN manual for the European CIDIN, which worked. Therefore they had deleted the non-effectual CIDIN in Annex 10, and replaced it with a reference to the European Document.

5.22 MP thanked JYP and SG1 for the work, but said that under no circumstances at all could a regional document be referenced in SARPs prepared by Headquarters. He proposed an arcane form of words to get around the obvious bureaucratic logjam. JYP was not terribly happy with this solution, which significantly reduced the strength of the reference to the EUR CIDIN document – MP's only alternative was to offer to put the whole thing under the CCB, which rather baffled SVT, who could not see the connection. Faced with this impasse, JYP could only accept MP's words. MP also offered further editorial advice concerning deletion and strike-out procedures – JYP would produce a revised version for the WGW meeting to follow. Finally, MP said that this work should be referenced in the Rapporteur's report, including a lead in text explaining why this work had to be done.

5.23 The WG approved the revised SARPs, noting MP's comments, without a line by line review, considered unnecessary on the basis of the SG1 technical expertise.

WP 19 – Withdrawal of ATSMHS Pass-Through Service

5.24 JYP reminded the meeting that at the Gran Canaria meeting, the WG approved the removal of the ATSMHS pass-through service from the SARPs. Since the SARPs had been approved by ANC, the full consultative procedure will have to be completed. This paper was the first part of the process – the red line/strikeout version of the SARPs to be submitted to and approved by the ATNP at ATNP/3. JYP said that because this was an amendment to the Core SARPs – nominally within the purview of WG1, this would have to be cleared with them. MP said that there would have to be an explanation in the cover paper saying why this was being done, what justification there was for such an action, and what knock-on effects, if any, were likely to occur.

5.25 MP said that his intention was to treat amendments to Annex 10 as outputs from Rapporteurs of the appropriate working groups. MA said that on that basis, JYP should look to WG 1 to progress this amendment further. JYP would investigate this option as and when the opportunity arose.

5.26 JMV said that this now left the ATSMHS with only one 'arm'. Previously the ATSMHS had been composed of the ATS Messaging Service, and the ATN Pass-through Service. Since there will no longer be a pass-through service, should we have a one on one mapping, or should we lose one level of the hierarchy? MA said that the sensible thing to do would be to delete ATSMHS and in future refer to everything as AMHS. TB, as custodian of the Lexicon, said it was not quite as simple as that – the ATSMHS was a System i.e. the Service provider, not the service itself, and was not

therefore semantically interchangeable with AMHS, which was a service. Faced with this indisputable logic, the WG agreed to the *status quo*, and if in later life there was a massive objection, the changes could be made then.

WP 33 – SME 3 CCB Report

5.27 JMV reported that the implementation of AIDC had occasioned 6 new PDRs. Although the CCB hadn't met yet, and he was more or less putting words in their members' mouths, he would expect at least four to be resolved on the basis of his recommendations and proposed solutions, and to be incorporated in Edition 3. Of the two outstanding, one related to the use of a nomenclature to cover 8.33 kHz Channel spacing, and the other to clarification of specifying lat/long.

5.28 The WG agreed that 8.33 kHz frequencies were correctly catered for, and the PDR should be rejected (much to JM's chagrin, since he had raised it) and the Lat/Long one should be accepted.

4.2 SG 2 - Air-Ground Applications

WP 6 – Report of ATNP WG3 SG 2 (Air/Ground applications)

5.29 MA reported on the latest (22nd and last) meeting, held in Laurel, MD, from 1 – 5 November 1999, and which was strongly influenced by the upcoming WG3/WGW/ATNP/3 meetings and the newly finished ADSP/5 meeting in Montreal.

5.30 FOM was discussed at ADSP/5, proposing different values from those included in the SARPs. It was agreed that no change would be made in the mode of operation of the FOM, and that ATNP would wait for confirmed values from ADSP before initiating a PDR to make the changes to SARPs. Much work was still going on with the P/OICS – regarding Guidance Material, more work needed to be done (now complete, see below). The SG agreed that an ICAO web site would be the best final location. Regarding timestamping, the ADSP has indicated the need for all application messages to be timestamped, regardless of the contents of the message. The SG to canvas opinion from SG3 as to whether the timestamp should be applied through the upper layers architecture. The Demand Contract PDR was discussed, and the SG agreed that if the aircraft could respond with the information, it would do, within a short space of time (Recommended 0.5 seconds). To fulfil this in Version 1 would result in too much of a change, but it can certainly be done in Version 2.

5.31 There were various concerns relating to Security, mandatory for Version 2 at all times. The problem of mandatory security was discussed at length, and the SG agreed that they would prefer if this was optional. In ADS new implementations called for the pilot to be able to identify which station were logged on to the aircraft for ADS, and for him/her to be able to terminate that particular connection. The SG agreed that there was nothing in the SARPs that specifically prevented an implementation from making ADS information available to the pilot, or indeed allowing him/her to terminate a specific connection. In CPDLC non-standard message pairing were being used in early implementations, even when there was an appropriate paired message available. Again, the SG was forced to accept that any message pairing, whether in the PICS/OICS or in any ICAO-based documentation, was strictly Guidance – there was no SARPs requirement for a specific pairing.

5.32 This was likely to be the last formal meeting of the SG2. If it had to meet again, it would be as a pre-panel drafting group, to clear up the application SARPs. The Chairman thanked all members, old and new, for the work that they had done over the years, and wished them well in their future ATNP-related work, which was not going to stop just because there was another Panel meeting.

WP 30 – SME 2 (air/Ground ATN Applications) Status Report

5.33 FP presented his SME 2 report, which listed all the 124 PDRs that have been submitted against SV 2 – Air/Ground Applications. Only the editorial PDR is still open, and two others have been forwarded for consideration for Edition 2 enhancements. This includes 99070003, concerning response times. At present this was a requirement from the ADSP – the WG position should be that we did nothing until a revised OR came from ADSP. If and when that happened, we should take action.

5.34 MA thanked FP for all his work as SME, and for the support and advice he had provided to the CCB on behalf of SG 2.

[WP 14a – Consolidated CM Version 2 SARPs]

5.35 TK confirmed from GS that this paper was not available in hard copy for scrutiny by the WG. GS said that there were several revisions, which has to be carried out at this meeting, as a result of further ad hoc meetings. MA said that he had agreed that there was no point in presenting material which was likely to have major changes in key areas during the course of the meeting, rendering it invalid virtually from the time it was printed.

5.36 TK also wanted it confirmed that there was no direct reference to SV 7 – The Directory – in the SARPs, hence implying that there were no alternatives. GS said that there were references to a directory in the CM SARPs – this could not be avoided – but he thought that there were no specific references to ‘The Directory’ *per se*. However, the material would be available for the WG, and TK could carry out an independent check.

WP 14b – Consolidated CM Version 2 Validation Report

5.37 GS presented this Standard Validation Report. The three major enhancements introduced in the Version 2 CM Application were the server facility query service, the server facility update and security/directory enhancements. The main problem of any CM validation was to ensure that introduction of the new services and functions didn’t invalidate any existing Version 1 functions. At present validation was by inspection alone, but work was going ahead in the CENA Charme project. This was why the validation matrix was incomplete. It is likely that ongoing validation will be taking place up to the Panel meeting, and would be finally reported as complete at the following WG meeting.

[WP 14c – Consolidated CM Version 2 Guidance Material]

5.38 GS said that updated guidance material would not be available until the next WG.

WP 31 – CM Directory Concept

5.39 GS said that this paper had been overtaken by events, and needed no further action.

WP 32 – CM Version 2 Issues

5.40 GS introduced this paper, which outlined some of the issues affecting CM and its proposed enhancements. The revised rules regarding security in Version 2 – Implementation Mandatory, Use optional – has changed the concept of CM server operations relating to Forwarding and Updating. Currently it is planned to allow the new services to be used in both the secure and unsecure modes. Likewise this revised security concept has removed the need for a DEGRADED mode, and this has been withdrawn. The setting and checking of the dialogue service Security Requirements Parameter needed further clarification – there are some possible solutions, which will need further investigation prior to confirmation of the CM SARPs. The WG agreed that these and other security-related problems should be taken off line with MB and the SSG – proposed solutions would be made available to the WG.

5.41 Likewise, there was a question of whether all CM services need to be confirmed services – at present not all are, and implementers are considering whether a PDR should be submitted requesting a change – this could affect interoperability. The WG were of the opinion that things were satisfactory as they were, but if a strong operational or technical case was identified, the subject should be re-opened. Finally regarding subsetting – at present there has been no demand to change the subsetting rules, (although it seems obvious that if an implementer does not like the prescribed rules, he will invent his own). Again – the WG suggested that the subsetting be left well alone as current, until such time as there was a positive, and constructive suggestion.

WP 13a – ADS and ARF Version 2 SARPs

5.42 FP outlined the changes that had been incorporated in the new material. The method of operation of the Demand Contract was re-engineered in response to PDR 99070003. ADSP had identified new requirements for Emergency/Urgency operation, and these have been adopted. Finally both air/ground and ground/ground ADS operations have been upgraded to fit the Security framework defined by SV 8. FP went through the material in detail to demonstrate the effect of the enhancements.

5.43 There was one specific query concerning Note 8 on p 89 – FP agreed to reword the note in line with revised SV 4 and 6. GS asked whether a new section – ATN Security Requirements – should be added as 2.2.1.6.3. FP said that this would not be required, as it was already taken care of in section 2.2.1.3. TK said that there were references to the ATN security policy – where could this be found. MB, called in, said that the policy is defined by the requirements and specifications of the system. The definition of an infrastructure to use of that policy is a secondary function of a Region or State. MA said that ‘ATN Security Policy’ as such is defined in Core SARPs, and therefore could be generally used and quoted. (Whether it was defined as we wanted it was quite another matter.)

WP 13b – ADS and ARF Version 2 Validation Report

5.44 FP introduced this completed Standard Validation report. Charme has implemented the revised functions/services, which have been validated, at least up to level ‘d’ – for everything except Security. But he thought that in this application at least, security was not such a big deal.

5.45 MA pointed out that FP had developed a form of words for TVO 12 – unless anyone had any violent objections, these could be used for all other applications, directly, and amended as appropriate for other services. The WG agreed the form of words, and their incorporation into the Standard Validation Report format.

[WP 13c – ADS and ARF Version 2 Guidance Material]

5.46 FP said that guidance material would be available at the ATNP/3 meeting, for incorporation into Doc 9739 at the next WGW.

5.47 The WG agreed that the ADS/ARF Version 2 material should be presented to the WGW for forwarding to ATNP/3

WP 15a – FIS Version 2 SARPs

5.48 FP said that this material had only changed in detail from that presented at the last meeting, and he therefore did not intend to go over it again.

WP 15b – FIS Version 2 Validation Report

5.49 Again – FP said that this material had been presented in the 17th Meeting, and was presented here for completeness only.

WP 15c – FIS Version 2 Guidance Material

5.50 FP presented here the completed GM for the FIS Version 2 application. MA congratulated him as probably the only provider of a complete ATNP/3, MP-acceptable SARPs package to be tabled at this meeting.

5.51 The WG approved this material for forwarding to ATNP/3 through the WGW meeting next week.

[CPDLC Version 2 Material]

5.53 GS said that there was very little in the way of changes to CPDLC – what there were related to the application of Security. There would be new Material on the table for WGW for completeness, but it had not been considered necessary, in the interests of limited time available, to present the material to WG 3.

5.54 MA said that this concluded the report of the work of SG 2.

4.3 SG 3 - Upper Layers Communications Service

WP 7 – ATNP/WG3/SG 3 Activity

5.55 SVT reported that the SG had had two meetings since the last WG 3 meeting, namely in Sterling, Va, and Bracknell, UK. He expected everything to be wrapped up at this meeting. The secure dialogue work was complete. Regarding the finalisation of the security aspects of the ULCS, there would be a meeting here to cover the Security Application Service Object, System Security Object and CM interface. The Security, Directory, Naming and Addressing, Connectionless dialogue and the Generic ATM Communications Service are all in the validation phase.

5.56 MA asked about the levels of validation expected to be achieved by Montreal. SVT said that the FAA would have expected to have implemented a Directory, and this would be aligned with COTS and NATO work. There was a strong commercial pedigree, with a spill-over validation effect. Regarding Security, there will be concurrent work being carried out in USA and France – interoperability will be achieved, leading to level ‘a’ validation. If level ‘a’ was not achieved, then it wasn’t worth going on with. FP said that the validation would concentrate on two parts – (i) checking that the communication protocols were able to send and receive security information, and (ii) checking the security functions themselves.

5.57 MA asked whether this would test all corners of the envelope, and SVT admitted that this would not be fully completed – there would still be a need for the Security experts to check the SASO, and the Directory interface. Although it would be possible to demonstrate that Security sat well within the ATN, this first validation will not be able to prove whether or not the institutional aspects and application aspects are sorted. DVR said that he could see a need for a directory, but not the need for the Directory, as in SV 7 – this was only one candidate solution, and should not be mandated.

5.58 DVR also was unhappy with the rush to implement Security – he thought that we could hold off until ATNP/4, and do a proper validation job – there would be no flying security before 2007 at the earliest. We should try and avoid another VDL Mode 2 type confusion. MB said that the security structure was not totally specific to an ATN stack – It was to a standards specification, and any validation was not a ‘roll your own’ exercise – the experience of the financial users, COTs and cell phone communities would be used. There would not be complete validation by ATNP/3 – there were still tweaks required beyond then – but any changes would not be as substantial as happened to other SVs at Phuket, for example. The approval of SV 8 should not be put off until ATNP/4 – even supposing there was an ATNP/4. MB said that the security structure was not totally specific to an ATN stack – It was to a standards specification, and any validation was not a ‘roll your own’ exercise – the experience of the financial users, COTs and cell phone communities would be used. There would not be complete validation by ATNP/3 – there were still tweaks required beyond then – but any changes would not be as substantial as happened to other SVs at Phuket, for example. The approval of SV 8 should not be put off until ATNP/4 – even supposing there was an ATNP/4, which was by no means certain.

5.59 MB said that an infrastructure will have to be in place – the Public Key Infrastructure (PKI) is a recognised structure, which is already in place in many non-aviation environments. MA asked whether it would be possible to introduce Security as a switchable option. MB said it would not – conformance with Edition 3 implied the implementation of a security capability. Implementation cost dollars, but it was required – non-use would be the option, not the default. SVT emphasised that implementation of security in the aircraft was mandatory – its use was optional. GS said that this implied that if an aircraft did not support security, it could not get the enhancements now being developed. SVT confirmed this, and pointed out that if the FAA Miami installation as Edition 3 compliant, it could reject any aircraft not likewise fitted.

5.60 MA asked who would have the casting decision as to what level of Security was implemented. GS said that this would be a used specification – i.e. the ground user – the air user could not mandate the ground to implement Security, but the vice could be versa. SVT said that implementation would probably be through Regional Planning agreements. DVR thought that security should be optional to

carry. FP noted that in order to have access to METAR, which was not a safety-critical service, there would be a requirement to carry security – he felt that this was unnecessary at this stage.

5.61 MB pointed out strongly that but for time and complexity, Security would have been in the initial SARPs – it was recognised as being seriously required. Security will be implemented faster as the deaths from accidents where security could be seen to be a factor mount up – this is a fact of life – viz. TCAS. MA said that supposing Security does come in seven years, and enhancements in three – why should aircraft have to carry ‘dead wood’ software about, requiring maintenance, achieving no benefit, for the additional four years? FP also did not agree with bundling enhancements and Security together as one update.

5.62 Again, many Security concerns had been aired, reflecting the lack of unanimous approval for (at least) the method of implementation.

5.60 After this discussion of security related matters, SVT went on to report the rest of the SG 3 activity. The ADSP had indicated that timestamping would be required for all messages – SG 2 had suggested by flimsy to SG 3 that this should be done in the upper layers. SVT said that we should try to separate fantasy from reality, and ask truly why a timestamp was needed. MA said that there was a need for accident investigation, and also for a measurement of overall system performance. SVT queried where the timestamp ought to be – should it be as a ‘post mark’ on the envelope, or as a paragraph in the letter ‘This is being written at 10 am on a lovely summer’s day.....’ In the first instance it would not be included in the PDU, and would not be a ULCS problem. He agreed that the message needed to be stamped on departure. MA said that the ADSP wanted this timestamp sent down with the message – otherwise there was no way of closing the performance loop, however accurate the time stamps were.

5.63 JM said that round trip timers were measured in the transport layer – there were good for the duration of the dialogue, but no-one had investigated the ability to make them available to the end user of an application – this was another whole issue. SVT said that the time was too short to take any action on timestamping at this stage – he thought that it required further investigation, and would be post ATNP/3 work.

WP 21a – Revised SARPs SV 4 – ATN Upper Layers Communications Service

5.64 SV 4 had been extensively revised to include Security and other enhancements. TK presented the revised SV for scrutiny, prior to its onward progress through the WG. Changes to section 4.1 – 4.6 were changes from Edition 2 to Edition 3, but sections 4.7 – 4.9 constituted completely new material, although the sections had been presented individually to the WG as work had progressed. The main changes since the Naples meeting were; (a) the secure dialogue service was completely integrated through out the document; (b) the Dialogue Service Control Function had been incorporated into section 4.3 and (c) the Security ASO was complete in section 4.8. This SASO had only recently been completed by GM-B – a stable SASO was a basic requirement before any further changes could be implemented. TK noted other minor changes e.g. in the GACS.

5.65 MA asked how many people had reviewed the document. SVT said that really nobody outside the members seated round the table had looked at it seriously. GM-B said that work was going ahead in the broader field – the CENA ‘Charme’ project team was involved. GS asked if the enhanced ULCS was fully backward compatible with Version 1. TK said that, strictly speaking, if the full version 2 was implemented, there would not be backward compatibility between Version 1 and Version 2.

[WP 21b – Revised GM SV 4 – ATN Upper Layers Communications Service]

5.66 TK said that this was not yet available – it was being updated and converted from Word to WordPerfect. However, it would be available by 8th January for forwarding to MP.

WP 21c – Validation Report SV 4 – ATN Upper Layers Communications Service]

5.67 TK introduced this as a standard format Validation Report. Validation was in progress, and was expected to be nearly complete by ATNP/3, although there were possible some security related

aspects which would still be outstanding. Standards referred to in the Report were stable, and likely to remain so. Some paragraphs in the report (Table 4.1, Section 7 and implementation of the new Security-based Technical Validation Objective (TVO 12) as worded by FP) would be updated before presentation to WGW. It is expected that validation would be well completed by any post ATNP/3 WGW that might be convened.

WP 24 – Guidelines for Approval of the Provision and Use of ATS Supported by Data Communications

5.68 This paper was tabled by SVT in response to an action from the Gran Canaria meeting concerning outline requirements of end-to-end certification. The paper was an all but final draft of material published by the RTCA189/Eurocae 53 PUB S/G. This has been developed as a single source document for Guidance Material covering approval aspects relating to Planning, Requirements determination, qualification, entry into service and operations of ATS supported by Data Communications, where co-ordination across institutions or approvals is necessary.

5.69 SVT said that that concluded the Report of the SG 3 activities.

6. AGENDA ITEM 5 - INTEROPERABILITY AND THE DEVELOPMENT OF PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENTS (PICS) FOR ALL APPLICATIONS

WP 25 – PICS/OICS for Air/Ground Applications

6.1 Mike Harcourt had prepared this paper as a cover for the soft copy of the PICS/OICS, which were on the archive. SG2 had developed the OICS proforma for Version 1 Air/Ground applications, which take the form of Excel spreadsheets. The OICS are now stable, and may be accessed for use. There has been a great deal of co-operation with industry and potential users. The format is now greatly simplified, and takes account of the formality of the existing ASN.I chapters in the applications.

WP 26 – PICS/OICS for AIDC

6.2 CL said that PICS/OICS also existed for AIDC – since they had only been informed of the changes to the air/ground versions very recently, there had not been time to align everything consistently. Consequently the version which was on the archive would be superseded very soon – certainly before Christmas. But Mike H and Dirk Fieldhouse were in close co-operation.

WP 36 – Future Availability of PICS/OICS Proformas

6.3 This paper, prepared by Mike Harcourt, stresses that the PICS/OICS have been prepared in Microsoft Excel format - conversion of them to any other format would be extremely difficult and time consuming. It is therefore requested that if ICAO would wish to retain them on any web site, for general access, that they should be kept in their existing format. The WG was in full sympathy with these suggestions – hard copy or word-processed would be unhelpful, to say the least.

6.4 This led to discussion as to where was the best place to have the PICS available. At present Eurocontrol had them on the PETAL II site, which made the tracing and access of them rather obscure – several people reported having difficulty accessing them. MA suggested that the best place to put them would be on a dedicated ATNP ICAO site – this was agreed generally, but MP had been much less than enthusiastic when the subject was broached earlier. FP said that, whatever, they should not be on two sites – this was a recipe for confusion. MA asked if it would be possible to put them on the CENA server – JYP was not too enthusiastic, saying that they could and would be accessed and used by industry – who would be responsible for editing and updating them, to avoid confusion, error and industry comeback. ‘Use at your own risk’ notices had been proven to be worthless in the eyes of the European Court of Justice, so that a simple caveat would not do. But he would investigate. JYP added that this should be brought to the attention of the WGW, if not the Panel. MA would include the problem in his report to the WGW/Panel

6.5 FP said there really was an urgent need to define the PICS and find a working home for them, and to agree a maintenance infrastructure. Would it be possible for the CCB to do the job? SVT commented that implementers were already finding them useful – administratively, even if they are

not a part of Doc 9739 (the CAMAL) there must be configuration control. But the CCB could only take it on if they came with a SME – i.e. there was a SME who would be the focal point. MA asked FP if he could take on that role for the time being if required – FP said it would be possible – he would not see a monthly requirement for CCB activity – perhaps a six-monthly activity would suffice.

6.6 JYP could go along with the CCB being responsible, and they could then be stored on the CCB site on the CENA server, with the CCB offering configuration control, and the CCB 'preparing them for publication', whenever that date may be. MA would propose this in his report.

WP 38 – PICS/OICS Guidance Material

WP 38 – PICS/OICS Guidance Material – AIDC Addition

6.7 Mike Harcourt had prepared updated comprehensive Guidance Material for the Air/ground PICS/OICS, and Dirk Fieldhouse has prepared an add-on for the AIDC, so that there could be a complete guide to all elements. MA asked that CL combine the two into one paper, for presentation to the WGW, and a subsequent home through the CCB.

7. AGENDA ITEM 6 - SYSTEM MANAGEMENT STATUS, VALIDATION AND OUTPUT FOR WGW/ATNP/3

WP 11 – SV 6 – ATN Systems Management Provisions SARPs

7.1 Although the Joint System Subgroup is under WG 1, WG 3 retains a strong interest in the work, since it was initiated in SG 3 as a function of the ULCS. JM gave a quick briefing on the progress of the JSG before handing over to TK for a detailed review of the SV. The JSG has had one meeting since Gran Canaria, principally to update the Managed Objects. This has led to the creation of about 60 pages of GDMO, which has been compiled and validated using a commercial Sun-station based GDMO compiler. As far as he was concerned, SV 6 was ready to roll.

7.2 Presenting the SV, TK said that the two major revisions since the last presentation are that the document is now in WordPerfect, and that the Cross Domain management Information Base is in GDMO notation. Other changes are small, (and thanks to Brian Cardwell and Marshal Abrams for these). Also some of 6.2, relating to naming and addressing provisions, will be removed into SV 9 (See Agenda item 10 below.) The ATN systems management general requirements are a list of recommendations that could be used with any conventional management package, not just a CMIP-based one. As far as he was aware, none of the standards invoked in this SV were on a critical or hit list. This SV does not carry extensibility markers – any revisions/extensions of the service will lead to a new volume.

7.3 FP asked if there was any means of specifying a different FIS, e.g. ATIS or METAR (or anything else, come to that)? Both JM and TK said that this would be looked at during validation – they both thought that they system should be flexible enough to cope with this. TH said that the GM had not changed since Naples, and needed to be updated – there needed to be additional GM to show the XMIB would be used in real life. (The GM also needed to be put into WordPerfect. The needs were focused on practical guidance). The SV would be under Configuration Control from 3/12/99. We should also not forget that there is a CONOPS – this exists, and is part of the GM.

WP 12 – SV 6 – ATN Systems Management Provisions Validation Report

7.4 TK gave a brief review of the Validation work – which had already been presented to WG 1. Validation work is not complete – it is expected to be reasonably advanced by the time of the Panel – enough to be able to give a verbal update – but is expected to be completed by the following WGW. MA asked that new Security TVO should be included, and FP asked that contributors be disidentified in the table of change histories.

7.5 This WG was not empowered to accept this document for the WGW and the ATNP/3 meeting – that was the responsibility of WG 1.

8. AGENDA ITEM 7 - SECURITY STATUS, VALIDATION AND OUTPUT FOR WGW/ATNP/3

8.1 This SV is the responsibility of WG 1, and, as such, was not presented to the WG. However, in his report of the work done, MB noted that validation for this SV will not be completed by ATNP/3, although he confidently predicted it would be ready for the following WGW meeting. CENA, through the Charme programme, and the FAA are both looking at validation of the crypto algorithms, while Allied Signal and NASA are looking at the infrastructure, Key Management etc. Validation is not expected above level C, at least in the near future. SV 1 and the core SARPs bits are completed, and some editorial updates have already been carried out at this meeting. There are probably still some minor changes to come, but the structure is there. 'Methods of doing things' need to be optimised – changes will undoubtedly occur.

8.2 MA asked about the interaction with other SVs. MB said that there was interaction with the Registration SV, which had already been agreed with GS, and with the Directory SV – there was a requirement for a Certificate Delivery Service and the Certificate Revocation Lists to be available. Asked about key management, MB said that this would be the responsibility of the Certificate Authority – but there would be appropriate paragraphs in the GM, when it got written. TK noted that in the SV interactions, SV 4 had dependency on SV 8.

8.3 The WG did not have the authority to approve SV8 – that honour belonged to WG 1.

9. AGENDA ITEM 8 - DIRECTORY SERVICES STATUS, VALIDATION AND OUTPUT FOR WG/ATNP/3

WP 23a – SV 7 – Directory Services (SARPs)

9.1 JM introduced this new SV. The ATN Directory Service (ATN DIR) application allows ATN Users to obtain directory information about ATN users, applications and services participating in the ATN. The ATN DIR aims at providing generic directory services over the ATN Internet. It may in turn be used as a directory system by user-applications communicating over the ATN. This may be achieved by means of user application interfaces.

9.2 JM reported that this SV had been reviewed in line by line detail at the ULCS meeting about four weeks previously. In addition, there had been a series of conference calls with SG 1 members ensuring that the AMHS requirements were adequately covered, and this is reflected in the final output. All that remains is a little work on CM, and this would be completed in the next two days. JM pointed out that some Profiles were very hard to derive from the Standards, and queried whether they should in fact be included. He had hard and soft copy of all the Standards called, but doubted whether many others would have also. JMV had the same point – he found that some of the references were not traceable, and we needed the commercial references to claim Commercial validation credit. JM thought that he had all necessary references, and commercial validation benefits could be claimed.

9.3 JMV asked how security would be implemented. JM said that this was detailed in MB's work – but it did seem as though the Directory could be queried without security. This was not, perhaps, what was really intended. GS hoped that if this was the case, the directory would not return Key information.

9.4 JM thought that there was one new profile to be developed – L-DAP over ULCS. This was an enhancement, and a new paper would be submitted. Otherwise there were no significant changes to be made, and he would anticipate presenting soft copy of this to MP next week through the WGW. As far as he was concerned, taking into account some editorials, he would wish to consider the SV as baselined with effect from its submission to the WGW.

WP 23b – SV 7 – Directory Services (Validation Report)

9.5 JM presented this standard validation report, which he admitted was pretty thin at present, although much work was going on. He expected a far more substantial report by 8th January '00. JYP said that France was supporting this activity, and much credit would be claimed for commercial

validation benefits. JYP agreed to supply text within the next 48 hours for the validation paper submission to the WG. With regard to Guidance Material, that would not be available for some time – probably not until the post ATNP/3 WG meeting.

9.6 The WG agreed the submission of the two papers to the WG.

10. AGENDA ITEM 9 - REGISTRATION STATUS, VALIDATION AND OUTPUT FOR WG/ATNP/3

10.1 SVT, introducing the new SV, said that it was intended to be a repository for ATN object identifiers, and perhaps also ATN addresses, and data dictionary information. It was designed to eliminate overlap of address/object identifiers. GS said that at present it only contained the top-level object identifiers (the first three arcs in the naming tree). There was a need to see the scope of operations to identify what should go in beyond that already there. The potential ATN address registration section (9.3) could be similar to the ICAO facility directory. MA thought that there could be update/logistic problems there.

10.2 SVT said that somewhere we would need an address registry, and it might as well be here, where we could have control of it. If we don't, there will be problems – even in PETAL there will be four US and two French addresses – with more no doubt being published. There were undoubtedly CM issues to be considered. FP thought that there were more than CM issues to be thought about – would there not be a requirement to have all application addresses in the SV? If the information was updated on a one-year cycle, would that be frequent enough?

10.3 SVT said we had to have a naming home somewhere, and that would allow us to control the addresses. JMV was against having a register of addresses in Doc 9705 – the amendment timescale would be unrealistic and impracticable. We really needed an ATN equivalent of Doc 7910. FP said we needed something rally dynamic – he proposed a web site. The STNA one existed, which, although private, had a very public access. MA agreed that a web site would be a good idea – this could be a forcing issue for an ICAO site.

10.4 GS said that there were other issues – for example what did we do with OIDs in other Volumes – did we delete and reference? SVT agreed that this would be the correct procedure – there was one in SV 5 which he would correct – now was the time to do it. TK also had them in SV 6. TK was not sure about the title – we would have other things in the SV apart from OIDs – also, how could we be sure that other Panels (e.g. SICASP) were not assigning their own OIDs, unregistered.... He thought that we should perhaps move table 4.3.2 into this sub volume. SVT said that this would be the correct procedure, if there was time – if not, then it could be done for the WG – it was almost editorial.

10.5 There was some discussion over TK's suggestion for a new name for the SV – it was decided that 'ATN Identifier Registration' was the best combination of information and succinctness. MA asked whether at present SVT could take editorial responsibility within the CCB – SVT conformed that this would be possible, at least for the time being. MA also asked about validation – it didn't really have any technology – it was just a repository and catalogue of information. It was agreed that validation was not required, but GS would write a one page to that effect.

10.6 JMV wanted a new OID for ATN AMHS – he didn't know whether it was a lower level, or where it should go – it was agreed that it should be new third level arc 1-3-27-8.

11. AGENDA ITEM 10 - ATNP LEXICON OUTPUT FOR WG/ATNP/3

WP 28 - ATN abbreviations, Definitions and Lexicon

11.1 TB presented this paper, which is the final WordPerfect version of the complete Lexicon. There is a companion volume, available in soft copy and Word 6, which gives the derivation of all the definitions included in this version. He proposed to present it as an information paper to ATNP/3.

11.2 MA thought that this was far too good a piece of work to be just presented for information – it was much more than that, and would help with the interpretation of the documents. To that extent it

was at least Guidance Material, and should be treated as such. MA would attach it to the first draft of his Rapporteur's paper, as potential GM, and see what the WGW felt about it. He thanked TB very much for the outcome of his ongoing programme.

12. AGENDA ITEM 11 - ACTIONS/PAPERS FOR THE WORKING GROUP OF THE WHOLE AND ATNP/3 MEETINGS

12.1 MA noted that Klaus Platz and Ron Jones had prepared agendas for the WGW, and outlines for the outcome of the Meeting respectively.

12.2 The inputs from this 18th WG 3 meeting to WGW **should** consist of

a. Complete redline/strikeout SARPs, Validation Report and Guidance Material **in WordPerfect 8** for -

i. Subvolume 2

Context Management	from	Greg Saccone
ADS/ARF	from	Fred Picard
CPDLC	from	[Jane Hamelink]/Greg Saccone
FIS	from	Fred Picard

ii. Subvolume 3

Extended AMHS (including CIDIN/AMHS Gateway sections)	from	Jean Marc Vacher
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iii. Subvolume 4

ULCS Complete revision	from	Tony Kerr
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b. New SARPs, together with completed Validation Report and Guidance Material, **in WordPerfect 8**, for

i. Subvolume 7

ATN Directory Services	from	Jim Moulton
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ii. Subvolume 9

ATN Identifier Registration		Greg Saccone
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c. Working Paper, **in WordPerfect 8**, containing

i. Redline/Strikeout Amendment to Annex 10 for Inclusion of AMHS and AIDC	from	Jean Yves Piram
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ii. Covering Working Paper for		Jean Yves Piram
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d. Working Paper including Lexicon, for inclusion in Doc 9739 (CAMAL)	from	Thomas Belitz
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e. Working Paper covering P/OICS and including Guidance Material	from	Claude Leclerc
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f. Working Paper from Rapporteur WG 3	from	Mike Asbury
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12.3 MA appreciated that not all the work was completed, and in fact may not be completed until post-ATNP/3. Nevertheless this was the target, and omissions will be notified at the WGW.

13. AGENDA ITEM 12 – AOB

13.1 There were no matters arising under this Item. There will be no further meetings of WG 3 before ATNP/3. MA said that this would be his last meeting as Rapporteur of WG 3, and thanked all members for their help and co-operation towards achieving completion of the Work programme by ATNP/3.

M J A Asbury
Rapporteur, ATNP WG 3

4 December 1999

ATNP WORKING GROUP 3 - EIGHTEENTH MEETING

1 - 3 December 1999

Tokyo, Japan

AGENDA

1. Review/approve meeting agenda
2. Review report and actions of the 17th meeting of WG3 (Gran Canaria)
3. Review status/outcome of relevant meetings -
 - 3.1 ADSP/5 Meetings (M J Asbury)
 - 3.2 ATN CCB meetings (S Van Tree)
 - 3.3 ICAO/ANC activities (M Paydar)
 - 3.4 ATNP WG 1 (Paul Hennig)
4. Review of Subgroup work, latest meetings and output for WG & ATNP/3
 - 4.1 SG 1 - Ground-ground Applications
 - 4.2 SG 2 - Air-Ground Applications
 - 4.3 SG 3 - Upper Layers Communications Service
5. Interoperability and the development of Protocol Implementation Conformance Statements (PICS) for all applications
6. System Management Status, Validation and Output for WG/ATNP3 (J Moulton)
7. Security Status, Validation and Output for WG/ATNP3 (M Bigelow)
8. Directory Services Status, Validation and Output for WG/ATNP3 (J Moulton)
9. Registration Status, Validation and Output for WG/ATNP3 (S Van Trees)
10. ATNP Lexicon Output for WG/ATNP3 (T Belitz)
11. Actions/Papers for the Working Group of the Whole and ATNP/3 Meetings
12. AOB

ATNP WG3 - Eighteenth Meeting – Tokyo, Japan – 1 - 3 December 1999

LIST OF WORKING, INFORMATION and DISCUSSION PAPERS

Paper Number	Agenda Item	Presenter	Title
W3/18-W01	1	M Asbury	Agenda
02	1	M Asbury	List of Working Papers
03	1	M Asbury	List of Attendees
04	2	M Asbury	Report of 17th Meeting, Gran Canaria
05	4.1	J Y Piram	Report of WG3 SG1 (Ground/Ground Applications)
06	4.2	M Asbury	Report of WG3 SG2 (Air/Ground Applications)
07	4.3	S Van Trees	Report of WG3 SG3 (Upper Layer Architecture)
08	3.1	M Asbury	Report of ADSP/5, Montreal
09	3.3	M Paydar	ICAO ATNP Secretary Update
10	7	Jim Lenz	Security Briefing, including indication of Threat
11	6	Jim Moulton/ Tony Kerr	SV 6 – System Management
12	6	Jim Moulton/ Tony Kerr	SV 6 SM Validation Report
13	4.2	Frederic Picard	Consolidated ADS Version 2 Material
14	4.2	Greg Saccone	Consolidated CM Version 2 Material
15	4.2	Frederic Picard	Consolidated FIS Version 2 Material, inc. METAR SARPs, Validation Report and Guidance Material
16	4.1	Jean-Marc Vacher	Consolidated Extended ATS Message Service SARPs, Validation Report and Guidance Material
17	4.1	Jean-Yves Piram	Consolidated CIDIN/AMHS Gateway SARPs, Validation Report and Guidance Material
18	4.1	Jean-Yves Piram	CIDIN Based Annex 10 Amendments
19	4.1	Jean-Yves Piram	Withdrawal of Pass Through Service SARPs
20	9	Steve Van Trees	New SV 9 – Outline Version
21	4.3	Steve Van Trees/Tony Kerr	Consolidated SV 4 Additional SARPs, Validation Report and Guidance Material
22	4.3	Steve Van Trees/Jim Simpkins	Application Relay Architecture
23	8	Jim Moulton	SV 7 – ATN Directory Services SARPs, Validation Report and Guidance Material
24	12	Steve Van Trees	End-to-End System Certification
25	5	Danny van Roosebrook/Mike Harcourt	Cover paper for Air/Ground PICS/OICS (Full Air/Ground PICS/OICS available in soft copy only)
26	5	Claude Leclerc/Dirk Fieldhouse	Cover paper for Ground/Ground PICS/OICS (Full Ground/Ground PICS/OICS available in soft copy only)
27	12	Mike Asbury /Tony Kirk	Document Tracking/Edition/Version Clarification
28	10	Thomas Belitz	ATNP Lexicon
29	12	T Kerr	Possible Withdrawal of ISO Standards
30	4.2	F Picard	SME 2 (Air/ground ATS Applications) Status Report
31	8	G Saccone	CM Directory Concept
32	4.2	G Saccone	CM Version 2 Issues

33	4.1	JM Vacher	SME 3 CCB Report
34		Unallocated	
35		Unallocated	
36	5	M Harcourt	Future Availability of PICS/OICS Proformas
37	4	S Van Trees	CCB Report
38	5	M Harcourt	Guidance Material for Air/ground PICS/OICS
39	5	C Leclerc	Guidance Material for AIDC PICS/OICS
40	8	M Bigalow	Security SG Report
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W3/18-DP1	12	M J A Asbury	WG 3/18 Draft Meeting Report

ATNP WG3 SEVENTEENTH MEETING – Tokyo, Japan, 1 – 3 December 1999

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* Shaded names principally attended WG 1

BRIEF NOTES OF ADSP/5, MONTREAL, 18 - 29 SEPTEMBER 1996**1. INTRODUCTION**

1.1 J-F Grout (France) was elected Chairman. 10 States and 4 international organisations were represented. 59 papers were presented. Agenda number titles are abbreviated in this report.

2. AGENDA ITEM 1 - REVIEW OF ONGOING WORK

2.1 States and Organisations reporting on significant data link related work included France, Germany, USA, UK, Canada, Japan, Spain Russia, Australia, Eurocontrol and ASECNA

3. AGENDA ITEM 2 – DEVELOPMENT OF SARPS (ETC)

3.1 There were 22 papers submitted, proposing amendments to Annexes 1, 3, 10 (II) and 11, PANS-RAC, PANS-OPS and Doc 9694. A Drafting Group was set up, chaired by the UK member, to review these papers, propose the necessary updates in the documentation, and present a DG report to the rest of the meeting as a *fait accompli*. The appropriate document amendments were approved.

3.2 ADSP work related to the updating of current ATS data link applications, and the development of SARPs etc. for new applications will continue.

4. AGENDA ITEM 3 – REQUIRED COMMUNICATIONS PERFORMANCE (RCP)

4.1 The ICAO ANC had passed the task of developing a concept of RCP to the ADSP. The developed RCP concept paper presented was a framework for the expression of the operational performance requirements for ATS communications in support of specific services, operations or procedures, quantifying the transfer of meaning between systems *or the human elements of a communications system*. There were **very** strong feelings within the meeting as to whether the human element should or should not be included.

4.2 It was decided that the concept document would be presented to the ANC as was, but explaining through the report why ADSP could not recommend it being sent to States, i.e. the need to agree whether to include the human element. Over the next 12 months the ADSP WG would clarify these points, and by Q1/2001 it should be in a position to be sent out to States for comment.

5. AGENDA ITEM 4 – USE OF ADS-B

5.1 The ADSP WG B has developed a paper at the request of the ANC that provided a concise definition, and described possible applications of ADS-B. France presented a major paper, giving a high level overview of the airborne traffic awareness concept. (Sweden presented a paper, which could be seen as part of the continuing Swedish ADS-B selling exercise, with a push for the use of VDL Mode 4 as the appropriate technology.)

5.2 A Recommendation for more work on ADS-B was included in the Future Work Agenda Item.

6. FUTURE WORK

6.1 Any suggestion that ADSP work would be subsumed by ATMCP was vetoed by the ATMCP Secretary. ICAO has confirmed the continuing need for ADSP. Since both RCP and ADS-B are urgent and high profile tasks, and there is also need to work on current, and to develop future, data link applications, the meeting proposed a three working group *modus operandi* between now and ADSP/6. TORs were approved, work programmes developed, and Rapporteurs appointed.

6.2 The next series of WG meetings will be held in Rio de Janeiro, 13-24/3/2000, with the next Panel meeting proposed for Q4/2002.

