ATNP WGA/3-DP/01

20/03/02

AERONAUTICAL TELECOMMUNICATIONS NETWORK PANEL (ATNP)

WG A – APPLICATIONS AND IMPLEMENTATION – 3RD MEETING

Phuket, 15 – 20 March 2002

Draft report of ATNP WGA/03 meeting

Presented by Jean-Yves Piram

Summary

This document is the draft ATNP WGA/03 meeting report.

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1. AGENDA ITEM 1: MEETING ORGANIZATIONAL ISSUES

1.1 The Working Group Rapporteur, Jean-Yves Piram, welcomed the participants to the 3rd meeting of Working Group A. The list of participants is included as Attachment B to this report.

1.2 On behalf of the French ATN Panel member, Arnaud Dedryvere, Jean-Yves Piram presented apologies for cancellation of the Toulouse meeting planned for last September. He explained that the blast of a chemical factory in Toulouse shortly after the 11th September events had caused major trouble in the Toulouse town, and that it would have severely affected the meeting organization. This had been the reason for the short notice meeting cancellation.

2. AGENDA ITEM 2: APPROVAL OF AGENDA

2.1 Jean-Yves Piram presented WP01, which was the agenda of the meeting. This was approved without comments. The agenda is included as Attachment A to this report.

3. COORDINATION WITH / INPUTS FROM OTHER BODIES

3.1. Update from the Panel Secretary

3.1.1 Masoud Paydar presented WP03-04 (an update from the Panel Secretary). As a follow-up to the Communiqués developed in the Honolulu for transmission to other Panels, he said that formal pre-coordination with Operational Panels concerning future changes to SARPs would be difficult and should not be expected to happen. Concerning Document 9705 Edition 3, the final text to be published shortly had been posted on the ICAO web site. It was envisaged to also post resolved PDRs on the web site. This would be related only to PDRs that were posterior to the published Edition. It was the Secretariat's intention to publish Doc 9705 in CR-ROM format only, the legal and institutional issues potentially associated with such practice were currently being investigated within ICAO. The 33rd session of ICAO Assembly had decided that SARPs and PANS going into ICAO Annexes would be limited to broad, stable and mature provisions, and concentrating on system level requirements. All detailed technical specifications would be moved to appendices to Annexes or to other documents. This was a generalization of the practice adopted for the ATN SARPs and detailed technical provisions. GREPECAS had requested that AMHS addressing plans be developed by ICAO, in view of some work which had been performed in the EUR Region. Masoud Paydar requested that this be addressed by Working Group A and/or Subgroup A3.

3.1.2 The Rapporteur asked about the status of PICS/OICS developed by the ATN Panel, and about the publication process which could be envisaged for such valuable material. Masoud Paydar said that this could be posted on the ATN Panel web site. However, the PICS/OICS having not been presented to the ANC nor to the Council, they had no official status within ICAO. Frédéric Picard said that these documents should be widely distributed to implementers, the question of the status was not really an issue. Guidance Material had also been developed about the PICS/OICS, he suggested that this be included in a specific chapter of the CAMAL, referencing the place where the pro formas themselves could be found.

3.2. Co-ordination with the CCB

3.2.1 A CCB meeting had been held before the WGA meeting. The meeting had considered that there was no life-threatening PDR preventing Edition 3 from being published. Corrections of PDRs which were in progress would be published at a later opportunity in an Amendment to Document 9705.

4. AGENDA ITEM 4: AIR-GROUND APPLICATIONS

4.1. Post Doc 9705 Edition 3 activities (Part 1)

4.1.1 Alfred Moosakhanian presented IP04 (An overview of a Flight Information Services-Broadcast (FIS-B) Protocol for Use in Any Broadcast Medium). Frédéric Picard noted that whilst this service was being offered in broadcast mode, there was no known official operational requirement defined by OPLINKP for broadcast services. He thought that the reason for such a gap should be investigated. The view was expressed that there was no need for ATN protocols to offer such broadcast services. The meeting noted the information provided on this new subject.

4.2. Subgroup A2 progress report and post Doc 9705 Edition 3 activities (Part 2)

4.2.1 Frédéric Picard presented WP06 (Report of ATNP WGA / SGA2). He explained that the subgroup had held two meetings, held in Laurel (USA), January 2002 and Phuket (Thailand), prior to the WGA meeting. There had been review and maintenance work about Doc 9705 Sub-Volume II. This was now considered very stable. There had been co-ordination with the ICAO Secretariat, and the latest version placed on the ICAO ATNP web site was correct. The air-ground application subgroup recommended the publication of Doc 9705 Edition 3 using the files posted on the web site. The Guidance Material for Air-Ground ATN Applications had been completed shortly after the Honolulu meeting. As a result of the resolution of recent PDRs, both CM and DFIS GM had been modified recently. The updated Guidance Material was submitted as WP to the meeting, but in soft copy only due to the volume of these documents. P/OICS had been reviewed and updated based on comments by RTCA SC-189/EUROCAE WG53. They were available in soft copy only, with the exception of DFIS for which the update would be completed shortly. A Japanese DFIS implementation initiative had been reported. This had allowed to identify the potential need for a ground-ground protocol for FIS. The subgroup was requesting an agreement by WGA to work on this task. The subgroup was facing a difficulty related to the absence of formal requirements being passed to ATNP, whilst many ideas were being discussed by operational working groups (e.g. OPLINKP) and implementation groups (e.g. RTCA/EUROCAE). The subgroup had started producing a standing document identifying potential new requirements, this would be further detailed in WP19. Future work would include maintenance of air-ground application SARPs, maintenance of P/OICS pro-forma, support to implementation programs and investigation on security matters. Finally, the subgroup was facing the lack of a nominated Chairman and invited the Working Group to resolve this issue.

4.2.2 Masoud Paydar commented that the subgroup should not start working about new operational requirements prior to a formal approval by OPLINKP and before an official notification to work on the subject. Frédéric Picard explained that with ATN applications being already defined, there was the need for a design loop between OPLINKP and ATNP. The impact of an updated/additional operational requirement could be very different depending upon its formulation, particularly in terms of interoperability between different versions of an application. An early feedback from the ATNP to the OPLINKP could considerably ease the future work of integration of new requirements.

4.2.3 Frédéric Picard then presented WP19 (Repository of potential Operational Requirements for Air/ground ATN Applications). The paper provided an accurate list of items which could need to be integrated into a later version of ATN applications. An example was the intention to remove some CPDLC messages. Claude Leclerc noted that the ground application subgroup was facing the same issue in relation to AIDC. It was considered that such a document could be helpful for the preparation of future subgroup work, e.g. to investigate issues such as "how may (AIDC or CPDLC) messages be deleted from a message set ?". Kors Van Den Boogaard insisted on the need to maintain interoperability, and thus to limit the number of distinct versions of a given application. Masoud Paydar said that the issue of changes to operational requirements had been raised within ICAO. There had been a formal statement from the ICAO Secretariat that operational Panels could change ORs as frequently as needed, because ORs were derived from safety requirements, and economical/technical considerations should have a lower priority. Frédéric Picard suggested that the WP be presented as a SGA2 paper in OPLINKP WG meetings. Masoud Paydar recalled that the formal way of exchanging information between Panels was the use of Communiqués. He said that there was nothing preventing individual experts from going to other panel meetings and presenting information/working papers under their own name, but not as "ATNP representatives". Kors Van Den Boogaard asked about the institutional issue of the sunset date for applications without security. Frédéric Picard said that technically the subject was closed, but he had no information about the sunset date. The meeting agreed with the approach of informal coordination through "crossed participation" of experts to both OPLINKP and ATNP working groups or subgroups

4.2.4 Mark Brown presented IP07 (An Architecture for a ground D-FIS System). The paper highlighted the potential need for a FIS ground-forwarding protocol. The question arose whether the ground-forwarding protocol should be ATN-based. It was noted that there could be a number of potential architectures meeting the expressed requirement. Frédéric Picard said that there was a technical problem with the current FIS SARPs, in case of a pilot requesting FIS information for an airport outside the coverage of the CM server to which the pilot is currently logged. The proposed architecture would resolve this technical issue.

4.2.5 The Rapporteur thanked Frédéric Picard and Greg Saccone for the co-ordination and reporting work they had been carrying out, in the absence of a nominated subgroup Chairman. He invited the Panel members present in the meeting to designate candidates for Chairmanship of the air-ground applications subgroup, among their technical advisors.

4.2.6 Frédéric Picard presented WP15 (SME2 Report). The report included a copy of all the PDRs being active. Four PDRs had been discussed in the CCB/15 meeting. Two PDRs had been progressed to RESOLVED, and two PDRs had been progressed to FORWARDED, including one related to a new operational requirement submitted by Airbus. Due to the non-critical nature of the PDRs, and to avoid any further delay in the publication fo Document 9705 Edition 3, the RESOLVED PDRs would not be included in the published Edition 3, but they would be part of the first amendment to this document.

4.2.7 Frédéric Picard presented briefly WP26 (P/OICS SME Report). The P/OICS were under configuration control, and the paper listed the changes applied to them in line with the recent changes to Document 9705 (coming in particular from PDR resolution).

4.2.8 Frédéric Picard presented WP17 (Operational Capability Summary – Simplified P/OICS). The need for a "summary sheet" in the ATN P/OICS pro forma had been identified, based in particular on feedback by operational people about the current P/OICS. The Rapporteur asked whether a feedback had been obtained from airframe manufacturers about this paper. Kors van den Boogaard said that the paper should also go to RTCA certifiers. The meeting agreed that the proposed "summary sheets" should be included in P/OICS; it was also

agreed that the paper should be passed to the OPLINKP, to representatives of the industry and to certifiers. The most efficient way to convey such information to the OPLINKP would be determined with the Panel Secretary.

4.2.9 Claude Leclerc took the opportunity to recall that P/OICS were also existing for AIDC. They would soon be posted on the same web sites as P/OICS for air-ground applications.

4.2.10 Frédéric Picard finally presented WP16 (ATN Application Capability Exchange), on behalf of Greg Saccone. The paper presented a number of options for the exchange of application capability between an aircraft and a ground system. He emphasized that prior to including such a functionality, there was a need to obtain confirmation by the OPLINKP that the representation of an application capability was complete and correct. The meeting agreed with the technical method proposed in the paper for exchange of such information, i.e. a combination of the ATN Directory and a modification to the CM version 2 Logon response.

5. AGENDA ITEM 5: GROUND-GROUND APPLICATIONS

5.1. Subgroup A3 progress report

5.1.1 Jean-Marc Vacher presented WP07 (Report of WGA / SGA3). He explained that the subgroup had held two meetings, one in Brussels in June 2001 and the other in Phuket before the current WGA meeting. The main focus of the meetings had been, as usual, on ATS Message Handling Services (ATSMHS), on AIDC and on monitoring of implementation activities. After a recent review of the provisional files on the ICAO ATNP web site, the latest version placed on the web site was correct. The ground-ground application subgroup recommended the publication of Doc 9705 Edition 3 using the files posted on the web site. The ATSMHS work had included further development of addressing considerations, and integration in Doc 9705 of the Common AMHS Addressing Scheme (CAAS) agreed in Honolulu. An address conversion strategy had been discussed and was proposed for adoption, this included address registration and publication procedures that had been discussed with the Panel Secretary. Publication of the Registry of AMHS management domains was envisaged using the ICAO web site. This would be presented as WP21. A first analysis of AMHS subsetting rules had been performed. Potential enhancements of AMHS security had been discussed and would be presented as WP14. A working paper had been presented about AMHS lower layers, recommending the adoption of IP. This was focused on lower communication layers, and the subgroup had considered that this was out of its terms of reference, and that it should rather be discussed in a joint WGA/WGB meeting. To finish with ATSMHS, the terminology review had been postponed for future work, in order not to conflict with the Document 9705 Edition 3 publication schedule. Concerning AIDC, the work in progress in the OPLINK Panel for an update of the operational definition had been studied, to study the potential impact on AIDC SARPs. This would be presented as WP8. There had been reports about AMHS and ground ATN implementation activities by Aena in Spain, by Eurocontrol and by U.S. and Japan in the ASIA/PAC Region. The latter two would be presented separately as working or information papers. Future work would include development of Guidance Material on AMHS addressing, investigation on security enhancements and AIDC Version 2, subject to a formal notice of new ORs by the OPLINK Panel.

5.1.2 Some specific points of the report were then discussed. Kors Van Den Boogaard asked about the level of reliability of “a web site approach” for address dissemination. Jean-Marc Vacher replied that the subject had not been addressed in these terms in the subgroup, but that a strict formal procedure was foreseen to ensure that the address information collected by ICAO was officially approved by States. The Rapporteur requested some more details about the AMHS subsetting discussions. Jean-Marc Vacher explained that 7 general AMHS subsets had

been identified, so as to enable an incremental implementation of AMHS, with intermediate steps between the Basic ATS Message Service and the Extended ATS Message Service. They had not been presented at this stage because the associated material was not sufficiently developed for a non AMHS-specialist audience. This topic would be further developed and presented in the next WGA meeting. The Rapporteur finally confirmed that the subject of IP as a lower layer stack for ATN applications was relevant to the WGB terms of reference, and that it would need further discussion in the WGA+B joint session.

5.2. Guidance Material for G/G applications

5.2.1 Jean-Marc Vacher presented WP21 (AMHS Address Conversion Strategy, Registration and Publication Issues). This was based on initial work by the SPACE project. Constructing upon the Common AMHS Addressing Scheme (CAAS) an address conversion strategy had been defined to take full benefit of this scheme. The strategy made an extended use of ATN Directory Services in support of AMHS address conversion, whilst maintaining the capability to operate without Directory Services. The address conversion strategy had been approved in the subgroup and was proposed for adoption by the Working Group. In relation to the strategy a set of address registration and publication procedures was needed, for the establishment of the ICAO Registry of AMHS Management Domains. Publication should be preferably by electronic means. This had been discussed in the subgroup with the Panel Secretary. Publication of this Registry was envisaged using the ICAO web site. Masoud Paydar had at this opportunity requested pro formas for the procedure to be developed, the first draft of one of these was included in WP21. It had appeared that the proposed procedures and strategy were providing a response to the questions asked by States and Organisations, in particular through ICAO Regional Planning Groups.

5.2.2 The document was approved by the meeting without specific comments. The meeting also agreed with the recommendation to have Guidance Material on AMHS addressing elaborated on the basis of the presented document, for inclusion in Edition 2 of Document 9739. This would be finalized for the next round of ATNP Working Group meetings.

5.3. Post Doc 9705 Edition 3 activities

5.3.1 Claude Leclerc presented WP14 (ATNP AMHS Security Questions). The paper had been already presented in SGA3. It had been generated based on work performed in the context of the SPACE project, in Europe. The paper was also submitted to the Working Group because it was felt that several items in the paper could be of interest not only to AMHS, but to the ATN environment as a whole. As a preamble, Claude Leclerc also clarified that AMHS Security as currently defined in Document 9705, Sub-Volume 3, was considered as properly working, but that the points in the paper should be seen as enhancements to the existing provisions.

5.3.2 Tom McParland, as the SGB3 Chairman (ATN Security subgroup), thought that a very thorough analysis had been put into the document. He said that some of the issues in the paper might have been already addressed by the Security subgroup. He said that this would need further co-ordination between SGA3 and SGB3, there was nothing critical since the SARPs were considered by both sides to be correct.

5.3.3 The Rapporteur suggested that this WP be formally passed to SGB3, so that discussions could take place between SGA3 and SGB3 experts, and so that the outcome of this discussions could be reported at the next round of WG meetings. This was agreed by the meeting.

5.3.4 Claude Leclerc presented WP8 (Preliminary analysis of the changes to AIDC resulting from the OPLINK Panel meetings). The work in progress in the OPLINK Panel for an update of the operational definition of AIDC had

been studied, to identify the potential impact on AIDC SARPs. The envisaged changes were sufficiently significant to justify the need for a Version 2 of AIDC. Interoperability would presumably be difficult to maintain between a Version 1 implementation (if any was in existence) and a Version 2 implementation. The subgroup would now be awaiting a formal notification of changes by OPLINKP to start developing a technical specification for this new Version.

5.3.5 Frédéric Picard said that this situation was very similar to what had happened with FIS in the past. AIDC Version 1 might become obsolete as soon as AIDC Version 2 would be published. The meeting confirmed that SARPs development work should be postponed, and that interoperability issues would be considered at that stage.

5.3.6 The subgroup had among its list of deliverables the development of technical provisions and guidance material concerning ICC applications extending beyond AIDC. It was confirmed that there was no information at all about such operational requirements being worked at by OPLINK Panel, and therefore subgroup A3 was planning no work on the subject.

6. AGENDA ITEM 6: NON-TECHNICAL ISSUES

6.1. Institutional issues

6.1.1 Jean-Yves Piram informed the meeting that the SG A1 chair was still vacant, and said he would be willing to receive proposals to resolve this issue. In the absence of working papers there was no specific work under this agenda item. However there would be work to do in the near future, in view of some topics being raised in other ATNP working groups or subgroups, e.g. in relation with ATN Security. So the need for resources and contributions to be allocated to this work item was becoming critical.

6.2. Economical / financial ATN accounting

6.2.1 The same issue as reported above for institutional issues was reported by Jean-Yves Piram about economical and financial issues.

6.3. Monitoring of ATN Implementation

6.3.1 Adrian Goodfellow presented WP03-05 (SITA Messaging Services and Plans for AMHS). The paper presented the current SITA offer for Messaging Services and its plans for AMHS service offer. The paper recommended a global managed ADMD and the use of IP as AMHS lower layers. Mark Brown objected that the recommended implementation of AMHS over IP was questioning the investment performed in the ASIA/PAC Region, where AMHS was already being developed and implemented as the first ATN-based application. Adrian Goodfellow said that direct use of IP services by AMHS might result to be more cost-efficient on the ground. The Rapporteur recalled that all lower layers matters were relevant to the terms of reference of Working Group B. So the subject would be discussed again during the joint session of WGA and WGB. Jean-Marc Vacher asked to which extent the SITA MHS security services were compliant with AMHS Security as specified in Doc 9705 Edition 3. The reply was that the security services were SARPs compliant, however a further detailed analysis would be needed.

6.3.2 Claude Leclerc presented WP10 (Link2000+). There was in fact no specific paper but information provided on a CD-ROM. Files had been prepared for the September 2001 round of meetings. There was now a shift in schedule

by approximately 2 years, with the exception of Maastricht which was ready and compliant with the announced plan. There was commitment by States to the Link2000+ program.

6.3.3 Christine Ricci presented IP08 (French DNA datalink implementation plans). Currently France had implemented DCL and ATIS datalink services by means of ACARS and ARINC-623. The architecture allowed easy migration to ATN protocols as soon as required by airspace users. The implementation of other data link services was under preparation. All these subjects were integrated in the context of the Link2000+ master plan. Services based on ATN and VDL2 would be provided around 2007. The French DNA was expecting that the Link2000+ program would progress towards common data-link implementation decision despite the current aviation situation.

6.3.4 Jack McConnell presented IP09 (Current status of CPDLC Build I, IA, and Beyond). CPDLC Build-I, to take place in Miami with American Airlines, has just completed the CPDLC testing and was on schedule. The Build-IA, including Enroute deployment to 23 Enroute Centers was planned for the December 2003 / December 2005 time frame.

6.3.5 Naoto Sakaue presented WP20 (ATN implementation status and planning in JAPAN (And in the Asia/Pacific Region)). Japan had implemented and experimented AMHS systems and ground/ground ATN routers. There had been tests with the U.S. and with other States in the Asia/Pac Region. AMHS would be operationally implemented in the tentative timeframe 2003-2005. Air-ground subnetworks (VDL Mode 2, AMSS Data2) would be implemented for operational use in the 2003-2004 timeframe. Air-Ground End Systems for experimental use had been or were being developed.

6.3.6 Naoto Sakaue said that Japan had some concern about AMHS implementation using IP. All States in the Asia/Pac Region were planning to implement AMHS using G/G ATN routers. IP might be used internally to a State, but for international connections use of other stacks than international ATN would be a problem for the Region. The whole ground ATN initiative had taken over 5 years including lots of knowledge development, changing now to another technology might take another 5 years and would make useless a large part of the accumulated knowledge. They intended to make some recommendations in this area in the next meeting.

6.3.7 Jack McConnell presented IP06 (Asia/Pacific Ground/Ground ATN Routing Architecture). A number of documents of the same nature had been developed by Working Group B of the Asia/Pac ATN Transition Task Force (ATNTTF). The paper aimed at providing an example of the thoroughness of the work being performed for ATN Transition planning. The complete set of papers would be reviewed by the ATNTTF in April 2002.

6.3.8 Jack McConnell presented WP11 (ATN Implementation Service with Japan Including Connectivity Trials). This had been undergoing since September 2000. The testing had been conducted between the FAA Tech Center in Atlantic City (New Jersey) and the JCAB IDEC Center in Tokyo. This had been done in four iterations and had been succesfully finished in November 2001. The September 2001 events had slightly delayed the planned start of operational service, which was now scheduled for March 2004.

6.3.9 Claude Leclerc had presented WP13 (EATMP Communications Gateway (ECG) Project Status Report) in the joint WGA/WGB meeting. Two inter-operable gateway implementations were being developed, to facilitate the transition of existing ground/ground communications from older (AFTN/CIDIN) technologies to newer (ATSMHS) technologies. The ECG developments were currently on schedule to produce two ECG Core Software developments towards the end of 2002. These were intended for operational use by ATSPs in the EUR Region or elsewhere.

6.3.10 The ICAO Secretariat had noted that some interconnections between ground-ground ATN routers were planned using public networks. Masoud Paydar asked for comments by experts about the validity of such an approach. Christine Ricci said that for experimental use, public networks had been used in the past. There would be no problem in using public networks for operational purposes, provided that confidence was obtained about the actual quality of service (QoS) offered by the public network. If this type of implementation strategy was valid, the Panel Secretary requested that Guidance Material should be drafted about this subject for the benefit of States and Organisations. Kors van den Boogaard said that ATN services as currently defined would not be provided by other vendors than the traditional aeronautical communication providers. The evolution towards IP was needed to find services on the market. Christine Ricci commented that the development of a SNDCF for IP subnetworks was going in that direction, but still with the initial view of using private IP networks. Using public IP services might generate additional constraints or requirements in terms of security, QoS management, etc. Claude Leclerc said that Eurocontrol had been succesfully using public telecommunication services for CFMU communications, based on a strong QoS commitment by the service provider. The Rapporteur commented that the QoS requirements were highly dependent upon the technical and operational environments. The need for guidance material was recognized by the meeting. Christine Ricci suggested that WGB could act as a focal point for the development of Guidance Material about QoS requirements and Service Level Agreements, for the provision of ATN subnetwork services by public telecommunication service providers. This would be further co-ordinated with WGB.

6.3.11 Jack McConnell briefly presented IP05 (U.S./Japan ICD). The paper had been already presented in SG B1. It had been developed and used for the U.S./Japan trials, and provided at earlier opportunities to the Asia/Pac ATNTTF and to ATNP WG meetings.

6.3.12 The meeting noted the information provided about these different implementation initiatives.

6.4. Monitoring of existing AFS

6.4.1 The Rapporteur stated that there had been no particular contribution under this agenda item, which could be explained bye the stability of the existing AFS.

7. AGENDA ITEM 7: ANY OTHER BUSINESS

7.1 Jack McConnell presented WP22 (Policy Based Management System). This was a high level paper outlining all the potential ingredients that would be needed to develop policy based management, with the same intention as expressed by the Panel Secretary, i.e. making a consistent use of managed services. This would be further developed in the context of the Asia/Pac ATNTTF, and it would be provided to the next WG meeting.

7.2 As agreed in the joint WGA/WGB meeting, the next round of ATNP Working Group meetings would be held in Toulouse, France, in the September-October 2002 timeframe. A formal invitation would be sent shortly by the French DNA.

7.3 On behalf of the group, the Rapporteur thanked Aerothai for the excellent facilities made available to the Working Group, and in particular for the support provided in the meeting secretariat and for the welcome party.

8. ATTACHMENT A : AGENDA AS APPROVED BY THE MEETING

1. Meeting organizational issues
2. Approval of the agenda
3. Co-ordination with / Inputs from other bodies
   - 3.1 OPLINK Panel
   - 3.2 AMCP
   - 3.3 CCB
   - 3.4 ATN implementation bodies (Regional PIRG, ATN Impl. TF…)
4. Air-ground applications
   - 4.1 Subgroup A2 progress report
   - 4.2 Guidance Material for A/G applications
   - 4.3 Post Doc 9705 Ed3 activities
5. Ground-ground applications
   - 5.1 Subgroup A3 progress report
   - 5.2 Guidance Material for G/G applications
   - 5.3 Post Doc 9705 Ed3 activities
6. Non technical Issues
   - 6.1 Institutional issues
   - 6.2 Economical / financial ATN accounting
   - 6.3 Monitoring of ATN Implementation and resulting actions
   - 6.4 Monitoring existing AFS
7. A.O.B

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10. ATTACHMENT C : LIST OF WORKING, INFORMATION AND DISCUSSION PAPERS

Paper Number	Agenda Item	Presenter	Title
WGA03-WP01	1	J.Y Piram	Agenda
02	1	J.Y Piram	List of Working Papers
03	1	J.Y. Piram	List of Attendees
04	3	M. Paydar	Update from Panel Secretary
05	6.3	M.Rezaei-Mazinani	SITA existing MHS service and plans for AMHS services
06	4.1	G. Saccone / F. Picard	Report of WGA / SGA2 (Air/Ground Applications)
07	5.1	J. M. Vacher	Report of WGA / SGA3 (Ground/Ground Applications)
08	5.3	C. Leclerc	Preliminary analysis of the changes to AIDC
09	4.3	B. Cardwell / D. Wells	Ground/ground network protocols
10	6.3	T. Kerr	Link 2000 +
11	6.3	J. McConnell	ATN implementation service with Japan including connectivity trails
12	7	K. van den Boogaard	WP forwarded to JWG
13	6.3	C. Leclerc	ECG Project - Status Report
14	5.3	C. Leclerc	AMHS security questions
15	4.2	F. Picard	SME2 Report
16	6.3	G. Saccone	ATN application capability exchange
17	4.1	F. Picard	Summary of operational capability
18	6.3	C. Leclerc	Eurocontrol studies on IP technology for aeronautical message exchanges
19	4.3	F. Picard	Repository for potential operational requirements
20	6.3	N. Sakaue	ATN Implementation Status and Planning in JAPAN (And in the Asia/Pacific Region).
21	4.3	J. M. Vacher	AMHS address conversion strategy, registration and publication issues
22	7	J. McConnell	Policy based management
23			See IP n° 8
24	4.2	G. Saccone	CM guidances

25	4.2	F. Picard	FIS guidances
26	4.2	M. Harcourt	P/OICS SME Report
27	4.2	M. Harcourt / F. Picard	P/OICS pro-format for CM, CPDLC and ADS
28			
29			
WGA/03-Rpt		J.Y. Piram	Draft WGA 03rd Meeting Report from Phuket

WGA03-IP01		J.Y. Piram	Report of 2nd Meeting, Honolulu
02	1	J.Y. Piram	Schedule of the Phuket ATNP WG meetings (March 2002**)**
03	6.3	M.Rezaei-Mazinani	SITA ATS messaging services and plans
04	6.3	A. Moosakhanian	An Overview of a Flight Information Services-Broadcast (FIS-B) / Protocol for Use in Any Broadcast Medium
05	6.3	J. McConnell	ICD
06	6.3	J. McConnell	Asia / Pacific ground / ground ATN routing architecture
07		M A. Brown	An Architecture for a Ground D-FIS System
08	6.3	A. Dedryvère	French DNA datalink implementation plans
09	6.3	J. Lenz	Current status of CPDLC built 1, 1A