Fifth

ATN
Task Force

ATN/TF/05

12-13 June 2009
México City, México

ESTABLISHMENT OF THE MEETING

0.1 This meeting was convened to review and complete several of the ATN CAR/SAM Planning/ Implementation activities, taking in consideration the updates on ICAO Doc 9880/9896 and the experience of activities being carried out in other ICAO Regions. A more completed CAR/SAM AMHS Implementation Plan was to be achieve and a work programme proposal for the new CNS/ATM/SG was to be agreed to continue the ATN implementation activities in the CAR/SAM Region

PLACE AND DURATION OF THE MEETING

0.2.1 The meeting took place ICAO NACC Office in Mexico City, Mexico from 12 to 13 June 2009.

OPENING

0.3 Mr. Michael Vreedenburg, ICAO NACC Office Deputy Director, opened the meeting and welcomed the participants.

ORGANIZATION

0.4 Ms Dulce María Rosés, Rapporteur of the ATN Task Force Coordinator chaired the meeting and wrote the minutes. Mr. Onofrio Smarelli, ICAO SAM Communications, Navigation and Surveillance Regional Officer and Mr. Julio Siu, ICAO NACC Communications, Navigation and Surveillance Regional Officer acted as technical advisors to the meeting.

WORKING ARRANGEMENTS

0.5 The meeting working language for the discussions and documentation was English and Spanish. It was agreed that the Working Group would meet on Friday from 09:00 to 16:30 and Saturday from 9:00 to 13:00.

AGENDA

0.6.1 The meeting approved the following Agenda (see **Attachment A**)

ATTENDANCE

0.7 The meeting was attended by Members from 5 States and 1 International Organization (Argentina, Brazil, Haiti, Dominican Republic, USA, and COCESNA) making a total of 14 participants, including ICAO officers. The list of participants is presented in **Attachment B** of this report.

CONCLUSIONS AND ACTION ITEMS

0.8 The list of conclusions and action items is presented in Attachment C, for the meeting follow-up.

LIST OF ATTACHMENTS

0.9 The following attachments are included in this report:

Attachment A – Agenda
Attachment B – List of Participants
Attachment C – List of Action Items
Attachment D – Table CNS 1Ba *Regional Plan of ATN routers part CAR*
Attachment E – Table CNS 1Ba *Regional Plan of ATN routers part SAM*
Attachment F – Table CNS 1Bb *Regional Plan of ground-ground applications part CAR*
Attachment G – Table CNS 1Bb *Regional Plan of ground-ground applications part SAM*
Attachment H – Amended SAM AMHS CAAS Addressing scheme
Attachment I – Proposed CAR AMHS CAAS Addressing scheme
Attachment J – ATN Work Program

Agenda Item 1: Review of the ATN CAR/SAM Planning / Implementation Activities.

1.1 During this Agenda Item the Meeting reviewed the following ATN CAR/SAM Planning / Implementation Activities:

- CAR/SAM Backbone of Internetwork ATN Routers
- Table CNS 1Ba – CAR/SAM regional Plan of ground-ground applications
- CAR/SAM ATN Ground / Ground - FASID Table CNS 1Bb
- IP Regional Plan
- IP Routing Policy
- IP Router ICD
- IP Security
- IP Test Procedures
- Results of IP communication trials

1.2 Members took this opportunity to present information on activities carried out in their respective areas as well as the progress and completion of their assigned tasks under the existing work program. The topics discussion was arranged by grouping the related topics and formulating the corresponding actions and conclusions. Following topics were discussed using the original reference of the agenda

CAR/SAM Backbone of Internetwork ATN Routers

1.3 The Meeting reviewed WP 16 proposing an infrastructure for a support network for the implementation of the ATN Network in the SAM Region using IP routers to support AMHS application. The Working Paper proposes that VoFR technology be maintained in the CAR/SAM Regions for voice services through MEVA II and REDDIG networks. This proposal is due to voice quality degradation when using VoIP in the satellite network with more than one hop.

1.4 Also, the meeting reviewed WP 11 proposing another backbone configuration with different alternative routes between the major backbone nodes.

1.5 The meeting noted the difficulties of having only one telecommunication mean such as the satellite platform (MEVA II and REDDIG) to support voice and data. The Meeting also agrees on the importance of having redundancy network. The meeting noted that currently the REDDIG and MEVA II network are considered the initial ATN backbone configuration. Therefore, it was considered that an update to the backbone will be analyzed and presented in the next ATF meeting.

1.6 The Meeting agreed that common criteria of updating the backbone for ATN in the CAR/SAM Region must be developed and proposed the following:

- Continue with the trials to determine the amount of bandwidth required for G-G applications. The trial should consider the peak-hour traffic scenario. **Brazil indicated that the results of the trials should be ready by middle of October.**

- Consider all services that could be implemented such as AIDC, Radar Data Sharing, etc.
- Conduct a cost/benefit analysis with respect to the existing satellite service with the local service provider taking into consideration the bandwidth improvement. **This task will be carried out by the MEVA II and REDDIG Administration to be completed and presented at the next ATF Meeting.**
- Study the terrestrial alternative backbone with regards to the satellite. Argentina indicated they will conduct the study along with USA/FAA. **The results should be ready by next ATF meeting.**

Regional CAR/SAM Router Plan - FASID Table CNS 1Ba

1.7 The meeting took note that the current CAR/SAM ANP CNS Table 1Ba– CAR/SAM regional Plan of ATN router is the one adopted by GREPECAS/15. After analyzing the Internetwork ATN Routers for CAR/SAM Backbone, the meeting considered that changes to the ATN CAR/SAM backbone were not necessary. Therefore no updates were made to Table CNS 1Ba for the CAR and SAM Region. **Appendix D and E** of this report presents the CNS Table 1Ba for the CAR and SAM regions.

CAR/SAM ATN Ground / Ground - FASID Table CNS 1Bb

1.8 The Meeting reviewed and approved the updates to Table CNS 1Bb for CAR and SAM Region. This update is to be presented to the CNS/ATM/SG as a proposal for its final approval. The updates tables are shown in Appendix **F and G** of this report.

1.9 The Meeting recalled that GREPECAS Conclusion 13/74 *Proposal of amendment to ATN regional plan* , amended the ATN Regional Plan into its current three CNS Tables (CNS 1Ba, CNS 1Bb and CNS 1Bc), and that Table CNS 1Bc *CAR/SAM regional Plan of air-ground applications* was to be developed as formulated in GREPECAS Decision 13/77. In this regard, the Meeting agreed to include this activity in the ATN work program.

IP Regional Plan

1.10 The meeting reviewed a Working Paper presenting the results of the analysis made by the Eight Meeting of Group I – Internet Protocol Suite of the Aeronautical Communications Panel (ACP) (Montreal, Canada, 25 to 29 August 2008) to the CAR/SAM IPv4 addressing scheme proposal elaborated during the ATN/TF/04 meeting. The ACP Group I made the following comments:

- The IPv4 addressing scheme contained in the proposal overlaps with existing ANSP IPv4 private assignments in other regions.

- The proposed private address space is also in conflict with ARINC-664 aircraft addressing, which is currently in use in the Airbus 380/350 and Boeing 787/747-8.

- The WG-I is currently developing a Draft ICAO Doc 9896 which specifies that States shall request official globally unique IPv6 address space from their Regional or Local

Internet Registry for ground-to-ground assignments, as already performed by another region. In addition, the Secretariat is investigating the allocation of an IPv6 prefix to further facilitate this procedure and to ease airborne assignments.

1.11 In this regard, after discussing the operation foreseen with the private IPv4 proposal and taking in consideration that:

- no access to the public internet will be needed nor allowed
- NAT service RFC 1006 will be used on the CAR/SAM regions
- Registration of IP addresses is needed when public internet is to be used
- and considering the comments of ACP WG I on the CAR/SAM private IPv4 addressing scheme proposal

The meeting considered that the use of IPv4 in the CAR/SAM ATN AMHS/ground-ground applications should not be in conflict with existing ANSP IPv4 private assignments and ARINC-664 aircraft addressing because the IPv4 addressing scheme will be apply in a private and close network.

1.12 The Meeting reviewed Working Paper 3 presented by Argentina describing a tentative IPv4 Addressing sub-allocations for the CAR/SAM Regions using the IPv4 CAR/SAM proposal to be adopted at global level, as well as other activities that took place since the last ATN/TF4 held in Dominican Republic on 27-28 June 2008.

1.13 As a consequence of the revision of WP03 the Meeting considered nonviable to apply this proposed IPv4 addressing scheme at a global level but to use it only in the CAR/SAM Region The meeting noted that WP/3 suggested address sub allocations for national and intra/inter regional links depicted on annex 1 and 2 of WP/3.

1.14 At this respect the Meeting considered that the IPv4 addressing scheme presented in the Annex 1 of WP03 could be used for national IPv4 address implementation and IPv4 addressing scheme presented in the Annex 2 of WP03 shall be used for IPv4 addressing for intra regional communication links.

1.15 The IPv4 addressing scheme presented in Annex 2 of WP03 was only for the SAM region, and so a similar proposal should be made for the CAR/NAM Region. The Representatives from COCESNA and Dominican Republic agreed to work on the addresses for intra /inter regional links in CAR/NAM Region. **This Task should be ready and sent to the ATN Coordinator by 9 October 2009.**

1.16 In this respect, the meeting considered the annexes 1 and 2 of WP/03 can be incorporated to the Initial CAR/SAM AMHS Transition Plan as its Appendix IV.

1.17 The meeting took note of the example shown in Annex 3 of WP-03, in which three different States make use of the suggested address sub allocations in different forms. In this graphic it was observed that:

- The three States have been interconnected to each other using the addresses established for such effects in attached Table like "Annex 2";
- Paraguay has taken a block of addresses and, of the form that is in "Annex 1", it has divided it in four sub networks in order to assign a network different from each one from its main nodes;
- Brazil has subdivided its block of directions in eight sub networks so, in this case, assign a network to each FIR and to have other four vacant sub networks to the effects that it considers to correspond;
- Argentina has already implemented its network ATN with a scheme of address different from the proposed one, prior to the publication of this document, has placed a border device with the intention that this device will make the address translation between the outer directions.

1.18 The delegate from FAA indicated that proposed IPv4 address scheme is not a problem. This scheme will only be implemented at a regional level.

1.19 Base on the information provided the Meeting agreed on the following conclusion:

CONCLUSION 5/1 PROPOSED ADDRESSING SCHEME FOR IPv4 ATN GROUND TO GROUND APPLICATIONS INTRA REGIONAL DOMAIN

That the CAR/SAM Region shall use the addressing scheme presented under Annex 2 of WP-03 of this meeting for implementation of IPv4 ATN Ground to Ground applications for intra regional domain**.**

1.20 Considering the Preliminary Approach for IP implementation in the CAR/SAM Regions as approved in GREPECAS/14, the Meeting discussed the activities to be conducted for deploying IPv6. Under this discussion it was considered the possibility of IANA to assign a block of IPv6 addressing for CAR/SAM. ICAO indicated that, according to the ACP Panel, IANA was willing to provide a block of addressing for Air to Ground applications only.

1.21 The Meeting noted that IANA can only assign IPv6 addressing scheme when using Public Internet. IANA does not have to assign IPv6 when using a private network because they are not monitoring the network.

1.22 The meeting indicated that a preliminary IPv6 addressing scheme for ATN Ground to Ground application study should be conducted. **The Representatives from Argentina, Brazil, COCESNA, and FAA/USA will participate in the study**. The group will take as a reference the EUROCONTROL IPv6 Address Scheme document. **This document should be ready by 9 October 2009 when it will be sent to the ATN Coordinator.**

IP Routing Policy

1.23 The Meeting reviewed Working Paper 11 titled CAR/SAM AMHS IP Routing Policy (AMHS ground -to-ground version) presenting a proposal for a set of recommended Routing Policies for the Caribbean/South America (CAR/SAM) Region Aeronautical

Telecommunications Network (ATN) Message Handling system (AMHS) service using the Internet Protocol and based on MEVA and REDDIG networks as well as dedicated circuits.

1.24 This proposed document is meant to describe the Regional routing protocols and policies that are to be used for the use of the ATN AMHS and based on the use of the IPS-based networks for exchanging ATN AMHS messages.

1.25 The proposed Routing Policy was updated with the following comments:

- The region has already proposed and is in the process to finalize IPv4 addressing scheme. This is a closed and private network that is based on MEVA and REDDIG. Therefore, coordination with IANA for this IPv4 issue is not necessary
- Since this document is aimed for IPv4 issue only, the document' title should be amended accordingly.
- IPV6 is not considered in the immediate future per the regional planning. IPv4 addressing schemes has been proposed and in the process to be adopted by the region.
- Additionally, a review is needed for the security requirement such as authentication or verifying network (establishing Virtual Private Network or using dedicated circuits/channels)
- As commented in the "CAR/SAM backbone of Internetwork ATN routers" review, the proposed AMHS routing and major ATN backbone related parts are to update accordantly,

1.26 The Meeting recalled that in the current version of the Initial CAR/SAM AMHS Transition Plan, it was established that to operate ATSMHS over ATN/IPS, IPS hosts shall make use of RFC 1006 to provide a TCP/IPv4 interface combined with IPv4/IPv6 protocol translation device.

1.27 The meeting considered that once the updates are made, the presented IP Routing Policy document can be incorporated into the Initial CAR/SAM AMHS Transition Plan as its Appendix III.

IP Router ICD

1.28 The Meeting reviewed WP 12. This WP provided an ATN Ground to Ground router ICD guidelines document for the routers that form nodes of the CAR/SAM regional network Backbone. This document was presented during the last ATF/4 and distributed to Members for review and comments. Comments were received and integrated into the document. This ICD addresses the Physical, Link, and Internet layers of the ATN G/G router using the TCP/IP model.

1.29 This IPv4 Router ICD document was finalized, adopted by the meeting, and will be incorporated in the Initial CAR/SAM AMHS Transition Plan as its Appendix V

IP Security

1.30 Working Paper 13 titled *ATN Security Guidance Document for the CAR/SAM Region's guidance on the implementation of security for states and organizations operating in the region*, a proposed draft Security Guidance Document for the CAR/SAM Region and guidance on the implementation of security for states and organizations operating in the region was presented. This document also includes Contingency Plan Outline and Incident Response Plan Outline.

1.31 The meeting considered that this document needs to be analyzed and modified to accommodate the needs of CAR/SAM Region. **Argentina and COCESNA agreed to review the document and distribute it to the Task Force Members by 25 September 2009. Comments should be sent to ATF Coordinator by 9 October 2009. This document will be presented at the CNS/ATM Sub Group 1 Meeting scheduled for October 2009.**

1.32 The meeting considered that once the document is updated, this IP Security document can be incorporated to the Initial CAR/SAM AMHS Transition Plan as its Appendix X.

IP Test Procedures

1.33 FAA representative presented Working Paper 05 highlighting the effort to establish ATS Message Handling System service between the USA and member states of the CAR/SAM region. Topics include a description of the existing environment, the benefits of the new service and a proposed schedule for implementation.

1.34 The referred AMHS service between the USA and CAR/SAM member states will operate out of the FAA's Atlanta National Network Control Center (NNCC). The AMHS system for the Atlanta NNCC is currently undergoing internal test, and is expected to be installed by the end of the third quarter of 2009. These test activities will consist of an initial application test, followed by connectivity test of the actual circuit to be used, and finally implementation. These phases are described in detail below:

- MTA-to-MTA Application Test - Initial AMHS testing can be conducted using the FAA's AMHS test facility, located at the Williams J Hughes Technical Center in Atlantic City, NJ. This facility can be accessed via an internet connection, as the goal of this test is not to verify circuit connectivity but rather to ensure successful MTA-to-MTA application level operability. The FAA can provide a template and plan for this phase of testing. The template provides for the exchange of test and implementation parameters such as AMHS addressing schemes, timers, and Originator/Recipient information. The plan provides the set of functionality to be verified at this stage. Concurrently with this phase, the FAA and the adjacent member can initiate the process to request telecommunications service, if not already in place. This will ensure that service is available when required for site test and implementation.
- Connectivity Test - Following the successful completion of MTA-to-MTA application test, activities can be scheduled to provide for verification of AMHS circuit connectivity. This will confirm the integrity of the circuit which will carry AMHS messages from the FAA's Atlanta NNCC to the adjacent site. As in the previous phase, the FAA can provide

a plan for this phase of testing, which primarily involves the exchange of test messages between the facilities.

- AMHS Implementation - Following the successful completion of circuit test between the AMHS facilities, cutover activities can be scheduled. These activities will provide for the introduction of live AMHS traffic to be exchanged over the circuit.

1.35 For these tests activities and particulary for the NAM/SAM testing the Meeting noted that even though the MEVA II/REDDIG Network interconnection will be implemented, the bandwidth could be an issue when testing over the Network interconnetion. This is due to the fact that the requested lines through MEVAII REDDIG interconnection are planned as 9.6 Kbps and a 64 Kbps is required. The Meeting also noted that there are 3 steps that must take place:

- MTA-MTA testing coordination
- Ordering of a 64 Kbps line and
- Keep the AFTN line for 6 month after transition

1.36 FAA Representative indicated that a proposed process for MTA-to-MTA testing using the internet will be developed. **This should be ready for review by 26 September 2009 when it will be sent to Members for review.** Also, FAA will present results of any tests conducted with other States by next ATF meeting.

1. 37 Considering the scheduled testing announced by the FAA, and the current testing undergoing on the region as detailed in the agenda item 1. i), the appendix IX *"AMHS and IP Router Compatibility Test Procedure"of* the Initial CAR/SAM AMHS Transition Plan will be completed for the next ATF Meeting.

Results of IP communication trials

Testing between Argentina, Brasil, and Paraguay

1.38 Brazil presented Working Paper 15 showing an analysis of tests conducted between MTAs in Manaus and Brasilia using different bandwidths for AMHS trials. 19.2 Kbps and 64 Kbps bandwidth were used. The test indicated that 19.2 Kbps was not sufficient bandwidth for the connection processing 1,000,000 messages per month. Taking into consideration that other applications such as AIDC and Radar Data will be included, it is suggested that 32Kbps should be used between MTAs.

1.39 Brazil indicated that studies will continue and results will be presented by middle of October 2009.

VoIP trials

1.40 The Meeting reviewed information presented by Brazil under WP-08 describing the VoIP trial between Brasil and Argentina over the REDDIG Network. The test between Brazil and Argentina shows that VoIP in the REDDIG Network is possible with a maximum of two hops using CODEX G.729 with a fair voice quality. For an IP ATN Network, voice will be transmitted as packets that could have more than two hops. Because of the nature of VSAT communications

the delay on each satellite hop affects the quality of the final voice result. Based on the results of the test of VoIP over the REDDIG network Brazil recommended that voice be kept on Frame Relay and Data over IP.

Argentina AMHS trials

1.41 Argentina presented information on the results of AMHS non operational testing between the three MTA installed in Argentina (Ezeiza, Cordoba and Bariloche) using 64K and the preparation to make AMHS non operational trials between Madrid and Ezeiza using the CAFSAT network, for this test IPv6 address will be used.

1.42 The meeting was also informed that IPV4 addresses were implemented in the border devices and MTAs of Argentina, Paraguay, Brazil and Peru and interconnection trials between routers were made using the IP v4 addressing presented in the Annex 2 of WP03.

Argentina's IP national network

1.43 The meeting took note of WP 04 presented by Argentina suggesting the following considerations for the implementation of an IP national network:

- IPS network should be:
  - *exclusively private*
  - Supported by ground or satellite networks (or a mix of both).
  - Based on *owned or leased* to PTTs network links.
  - Transported over dedicated lines or switched connections. The switched connections, in turn, can be switched circuits or switched packets.
- Each State will be able to select the *IPS elements provider* it deems convenient; nevertheless, it should consider that this selection should be practically definitive, since it is not advisable to have various equipment with an identical aim, but of different makes, since this will force to unnecessarily *multiply* training, spare parts, human resources and remote management.
- If end-to-end (dedicated lines) is used, the WAN accesses can be single *or* double at each of the sites it reaches.The networking elements can be single or double.
- The network must be installed so as to permit remote visualization and management of all and each of its components.

*For the IP addressing plan, e*ach State will be able to use the addresses and addressing scheme it prefers, but it is recommended that:

  - The network addresses be assigned in continuous blocks.
  - The address block distribution is carried out hierarchically, so as to permit routing scalability.

- It is possible to configurate subnetworks, in order to take the utmost advantage of each assigned **network.**

- The only addresses assigned and known by the rest of States will be that of the communications equipment interfaces used in the *interconnection borders* between the internal and external networks of each State.
- Each State must guarantee the routing through its network to the internal address (es) of the application servers used with other States.
- The Regional Office, in virtue of corresponding institutional arrangements, should coordinate the implementation of the selected *regional routing*.

1.44 The meeting also took note of the following ATN IP implementation planned by Argentina:

- *AMHS*: in national operation since 20 January of 2006, with the MTA/MS in Ezeiza. Since then, the only AFTN connections remaining are the international connections (Uruguay, Paraguay, Bolivia, Peru, Chile, Brazil and South Africa) and few national User-Machines. Shortly the MTA/MS of Cordoba and Comodoro Rivadavia will be added.
- *AIDC on AMHS*: preoperational between Ezeiza and Cordoba ACCs.
- *Radar signals:* 5 secondary radars have been implemented using ATN; signals generated using Asterix and IP (Bariloche, Neuquén, Santa Rosa, Quilmes *and* Cordova). During the current year and the next one the signals of other 11 radars will be added (5 of them generate the signal in serial form).
- A meteorological (Automatic System of Aeronautical Meteorological Visualization) has been implemented in 16 airports
- Remote control post of the ACC Ezeiza (FDP/RDP Aircom 2100 Indra) in Airfield for light aircrafts Jorge Newbery, situated within the city of Buenos Aires. Before the end of the year a second position will be added, in another Metropolitan Area airport.
- *ATS Voice Service:* in operation between the ACC Ezeiza and 7 airport Towers, between the ACC Commodore Rivadavia and 10 airports. It is estimated that the service will be on national ATN network by 2010
- *Aeronautical* mobile *service*: this it will be the last service to be entered into network, once the others are completed (it is considered that test will commence by the end of 2010).

Other trials considerations

1.45 The Meeting reviewed information presented on test results between Maiquetia, Venezuela and ACC Amazonico in Brazil for Radar Data Exchange and flight plans. The results indicate that REDDIG Network can be use as primary transmission for the integration of adjacent center using 9600 bit/s transmission.

1.46 Argentina indicated they will continue trials with Peru, Brasil, and Spain. The results of these tests will be reported during the next ATF meeting.

Agenda Item 2: Review activities carried out in other ICAO Regions.

2.1 The Delegate from FAA reported that ASIA/PAC Regions will continue using AMHS based on ICAO Doc 9705. For inter regional connection, States will support RFC 1006 based on ICAO Doc 9880. He also indicated that all regional Members have dual stack except Japan.

Agenda Item 3: Review of ICAO DOC 9880 / 9896.

3.1 Under this agenda an IP was presented providing a briefing on the current status of ICAO guidance material on ATN implementation, addressing relevant issues on Doc 9880 and Doc 9896.

3.3 FAA Representative presented an Information Paper highlighting the differences in major versions of Doc 9705 from Doc 9880 and Doc 9896. The meeting considered that the comments and observations provided were useful for the enrichment and improvement of Doc 9880 and 9896.

Agenda Item 4: Review of the Regional Plan for the implementation of AMHS in CAR/SAM Regions and AMC Directory Services.

4.1 Under this Agenda Item the Meeting reviewed and updated the CAR/SAM AMHS Implementation Plan, based on information received under Agenda Item 1 and 3. This includes revisions and updates on AMHS Routing Policy, AMHS Transition Guidance, and AMHS over IP Test Procedures, IP security policy, IP Addressing Plan, and CAR/SAM AMHS Addressing Plan.

CAR/SAM AMHS Addressing Scheme

4.2 The Meeting took note of the amended SAM AMHS CAAS addressing scheme and the proposal CAR AMHS CAAS addressing scheme. Both will be presented during the upcoming CNS/ATM SG Meeting. (See **Attachment H and I** of this report)

AMC Directory Service

4.3 The Meeting took note of the information provided on AMC service procedures agreed between ICAO and EUROCONTROL that request States to register these services, as well as the information given during the last seminar on AMC Training.

4.4 The Meeting was informed that coordination is taking place for an AMC Course to be conducted during the upcoming ATN Applications Seminar scheduled the last week of November 2009 in Dominican Republic.

4.5 Since the AMHS Directory service is available and the procedures for its operation and management are already defined by ICAO, the meeting considered that this information could be incorporated to the Initial CAR/SAM AMHS Transition Plan as its Appendix VIII titled *CAR/SAM Directory Service*.

Agenda Item 5: Review and update the Initial Transition Plan for the ATN in the CAR/SAM Regions.

5.1 Based on the information and results from the Agenda Item 1, 2, 3 and 4, the meeting took note that an updated version of the CAR/SAM initial Transition Plan for the ATN, including the CAR/SAM AMHS Transition Plan could be done. This task is expected to be completed by the end of 2010.

Agenda Item 6: Task Force Work Program

6.1 Taking in considerations the new CNS/ATM Subgroup and its terms of reference, the Meeting reviewed and updated the ATN work program activities in order to support the new CNS/ATM Subgroup in the definition of tasks and deliveries for accomplishing the regional performance objectives:
some dates were updated and new activities are included such as AIDC activities, planning on A-G applications (Table CNS 1Bc), and IPv6 addressing plan

6.2 The Meeting approved the updated work program shown in **Attachment J** of this report

Agenda Item 7: Other Business

7.1 Task Force Meeting will be scheduled for middle of 2010. This will be confirmed after the First CNS/ATM SG Meeting.

7.2 Documents and discussions should be in English for future meetings.

Attachment A

AGENDA FIFTH ATN TF

Agenda Item 1:	**Review of the ATN CAR/SAM Planning / Implementation Activities.**
Agenda Item 2:	**Review activities carried out in other ICAO Regions.**
Agenda Item 3:	**Review of ICAO DOC 9880 / 9896.**
Agenda Item 4:	**Review of the Regional Plan for the implementation of AMHS in CAR/SAM Regions and AMC Directory Services.**
Agenda Item 5:	**Review and update the Initial Transition Plan for the ATN in the CAR/SAM Regions.**
Agenda Item 6:	**Update existing and future Task Force Work Program**
Agenda Item 7:	**Other Business**

EXPLANATORY NOTES TO AGENDA

Agenda Item 1: Review of the ATN CAR/SAM Planning / Implementation Activities.

The Meeting is expected to review the following ATN CAR/SAM Planning / Implementation Activities under this Agenda Item. Members should take this opportunity to present information on activities carried out in their respective areas as well as those assigned under the existing Work Plan.

NOTE: The names of such States/Territories/International Organizations are identified and action by each Member should be taken accordingly.

a) **CAR/SAM Backbone of Internetwork ATN Routers**

b) **Regional CAR/SAM Router Plan - FASID Table CNS 1Ba**

c) **CAR/SAM ATN Ground / Ground - FASID Table CNS 1Bb**

d) **IP Regional Plan**

e) **IP Routing Policy**

f) **IP Router ICD**

g) **IP Security**

h) **IP Test Procedures**

i) Results of IP communication trials

- **Coordination between AENA and Argentina for testing over CAFSAT on IPv6**
- **AMHS Testing between Argentina, Brasil, and Paraguay**
- **IP National Network**

Agenda Item 2: Review activities carried out in other ICAO Regions.

Under this agenda item ICAO CAR/SAM CNS Officers will present information on activities carried out in other ICAO Regions such as ASIA/Pac and Europe.

Agenda Item 3: Review of ICAO DOC 9880 / 9896.

Under this agenda item the Meeting is expected to review information to be presented by ICAO CNS Officer in Montreal on ICAO DOC 9880 / 9896 and its impact on the implementation of ATN.

Agenda Item 4: Review of the Regional Plan for the implementation of AMHS in CAR/SAM Regions and AMC Directory Services.

Meeting is expected to review and update the CAR/SAM AMHS Implementation Plan, based on information received under Agenda Item 1 and 3. This will include revisions and updates on AMHS Routing Policy, AMHS Transition Guidance, and AMHS over IP Test Procedures, IP security policy, IP Addressing Plan, and CAR/SAM AMHS Addressing Plan. Actions under this agenda item

a) Review of the CAR/SAM AMHS Transition Plan - (**ATN Rapporteur**)

b) CAR/SAM AMHS Addressing Scheme – (WP/IP to be presented by **CAR and SAM Secretariat**)

c) AMC Directory Service – (WP/IP to be presented by **ICAO State Letter**)

Agenda Item 5: Review and update the Initial Transition Plan for the ATN in the CAR/SAM Regions.

The Meeting is to discuss and prepare to update of the initial Transition Plan for the ATN based on Agenda Item 1, 2, 3 and 4. This includes information for ATN/IPS (Doc. 9896) and the recent publication of ICAO Doc. 9880 Part II B for AMHS. At this respect it is expected that the inter and intra regional ATN CAR/SAM network connections will be reviewed taking also in considerations the MEVA II REDDIG interconnection., bandwidth consideration , routers failure, operational flow, and other aspect that the meeting considers necessary

Agenda Item 6: Task Force Work Program

Taking in considerations the new CNS/ATM Subgroup and its terms of reference, the Meeting will review and update Task Force terms of reference and work program activities in order to support the new subgroup in the definitions of tasks and deliveries on the performance related objectives.

Agenda Item 7: Other Business

Under this agenda item the meeting it is expected to analyze other aspects related to the agenda considered necessary.

International Civil Aviation Organization
Organización de Aviación Civil Internacional
Fifth ATN Task Force Meeting (CNS/ATN/TF/5)
Quinta Reunión del Grupo de Tarea ATN (CNS/ATN/TF/5)
Mexico City, Mexico, 12 to 13 June 2009
Ciudad de México, México, 12 al 13 de junio de 2009

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CNS Committee ATN Task Force Action Items

Last Updated : June 2009
Attachment C

ATF	Reference	Title/Description/Updates	Deliverables	Action by	Target Dates	Last Activities
1-1	ATF Work Program	Keep up-to-date the ATF Work Program	ATF Work Program	Rapporteur	On-Going	
1-2	AMHS over TCP/IP	Study TCP/IP a a protocol for the intra-regional connections	Recomm. to CNS on TCP/IP	Colombia, COCESNA	**Completed**	Nov-06
1-3	CAR/SAM ATN Transition Plan	Update the Initial Transition Plan for the Evolutionary Development of the ATN in the CAR/SAM Regions to integratge the CAR/SAM G/G Transition, A/G Transition, and ATN Implementation Plan Updated on March 2007 to add the following documents: a) Caribbean/South America (CAR/SAM) Regional ATN Ground-to-Ground Transition Plan b) Caribbean/South America (CAR/SAM) ATN Implementation Plan c) Caribbean/South America (CAR/SAM) AMHS Transition Plan	CAR/SAM ATN Plan	Dulce Roses ATF Rapporteur	On-Going	June 2009.
1-4	AMHS Guidance Transition Material	Strategy and guidance to transition from AFTN to AMHS environment utilizing IPS	ATN Task Force	Noel Ellis Jamaica	**Completed**	Nov-06
2-1	ATN Routing Policy	Develop the MTA Routing Policy - June 08 - Document will review and results will be presented during the next Task Force Meeting based on Table CNS 1Ba **June-09 Ref. to 2-4 for update**	Initial ATN Routing Policy	Brasil / Argentina / COCESNA	Feb-09	June 2009.
2-2	IP Addressing Scheme	Develop the IP addressing scheme - **June-08** - The Plan was presented and will be reviewed.**June-09** - Argentina presented a tentative IPv4 Addressing Scheme	Initial IP Addressing Scheme Plan	Argentina	Next Task Force Meeting	June 2009.
2-3	IP Security	Develop guidelines for IP security (Note: FAA will provide information on Security to Task Force before this is assigned.) **June-09** This document needs to be analyzed and modified to accommodate the needs of CAR/SAM Region. Argentina and COCESNA agreed to review the document and distribute it to the Task Force Members by **25 September.** Comments should be send to ATF Coordinator by 9 October.. **This document will be presented at the CNS/ATM Sub Group 1 Meeting scheduled for October 2009.**	IP Security Guidelines	Argentina, COCESNA	9/1/2009.	June 2009.

CNS Committee ATN Task Force Action Items

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Attachment C

2-4	IP Routing Policy	Develop a routing policy for IP - **June-08** Draft IP Routing Policy document will be distributed to the ATN Task Force Member for review. **June-09• The IP Routing Policy was updated with the following comments:** **1. The region has already proposed and is in the process to finalize IPv4 addressing scheme. This is a closed and private network that is based on MEVA II and REDDIG. Therefore, coordination with IANA is not necessary** **2. IPV6 is not considered in the immediate future per the regional planning. IPv4 addressing schemes has been proposed and in the process to be adopted by the region.** **3. The region needs to review the security requirement such as authentication or verifying network (establishing Virtual Private Network or using dedicated circuits/channels)**	IP Routing Policy Document	USA/FAA Hoang Tran/ CAR/SAM Regions (3)	2008	June 2009.
2-5	IP Router ICD	Create an IP Interface Control Document - **June-08** Document was presented for review and comments b the Task Force. Response should be in by Nov. 2008 **June-09 IPv4 router ICD was finalized, adopted by the meeting and will be incorporated in the Initial CAR/SAM AMHS Transition Plan as its Appendix V**	IP Interface Document	USA/FAA (Roberto Delgado)	Completed	June 2009.
2-6	Develop Test Procedures	**June-08 -** Develop the test procedures for ATN applications and IP Router (MTA-MTA, MTA-UA, Radar, VoIP) 1. Jamaica and COCESNA will develop the Radar test procedures. 2. Argentina will do VOiP MTA-UA Testing between Argentina and Peru; MTA-MTA Testing between Argentina y Paraguay. 3. Radar Testing between Brasil and Venezuela, Jamaica and COCESNA. 4. MTA-MTA Testing between COCESNA y USA (Ref to 5-4) **June-09 - NOTE: Ref to 5-4 for updates**	ATN Applications and IP Router Test Procedures	Brasil / Argentina USA/FAA / COCESNA	Feb-09	Jun-08
3-1	CAR/SAM Major Hubs Backbone Note: This should be integrated to the ATN Routing Policy and Test Procedures	Update the CAR/SAM Regional Telecommunication Major Hub Backbone: a) Identify the Communication Centers that require AMHS or UA only b) Identify the circuits that need to be upgrated before the transition c)Develop waterfall schedule for transition for an entire region. **June-09 Update to backbone for ATN in the CAR/SAM Region to be done by next Task Force Meeting.**	ATN Task Force	Jamaica, COCESNA, T&T, Brasil	Next Task Force Meeting	June 2009.

3-5	IPv4 vs IPv6	Evaluate the IPv6 vs IPv4 due to compatibility issues with European region	ATN Task Force		**Completed**	2007
3-8	Network Operation Procedures	Develop Network Operation Procedures **Note**: EUROCONTROL will host the meeting in June 2007	ATN Task Force	Dulce Roses ATF Rapporteur FAA/USA/ Aena / Eurocontrol	**Completed**	07-Mar
3-9	Management of AMHS Addressing Scheme	Develop an entity to manage AMHS Addressing Scheme and coordinate th work with other ICAO regions (Note: Those Statates that have already implemented AMHS should contact EUROCONTROL AMC to provide support in mainteining the data-base. Argentina is already doing this. EUROCONTROL will be invited to the next ATN Task Force for a briefing on AMC) **June-09 ICAO coordination is taking place for an AMC Course to be conducted during the upcoming ATN Applications Seminar scheduled the last week of November 2009 in Dominican Republic.**		Reps from CAR/SAM Region/ ICAO		June 2009.
4-1	AMHS Addressing Scheme verification	ICAO Office to verify with States and update the addressing scheme accordingly. (ICAO adopt CAAS addressing scheme)	Update AMHS addressing table	ICAO	2009	Mar-09
5-1	Addresses for intra/inter regional links in CAR/NAM Region.	The Representatives from COCESNA and Dominican Republic agreed to work on the addresses for intra/inter regional links in CAR/NAM Region. This Task should be ready and sent to the ATN Coordinator by 9 October 2009.	Addressing scheme for intra/inter regiona link	COCESNA and Dom. Rep	09-Oct-09	June 2009.
5-2	Preliminary IPv6 addressing scheme for G-G application	Aa preliminary IPv6 addressing scheme for ATN Ground to Ground application study should be conducted. The group will take as a reference the EUROCONTROL IPv6 Address Scheme document. This document should be ready by 9 October 2009 when it will be sent to the ATN Coordinator.	IPv6 Addressing Scheme for G-G	Argentina, Brasil, COCESNA, USA/FAA	09-Oct-09	June 2009.
5-3	Common criteria for Backbone implementation	Continue with the trials to determine the amount of bandwidth required for G-G applications. The trial should consider the peak-hour traffic scenario. Consider all services that could be implemented such as AIDC, Radar Data Sharing, etc.	CAR/SAM Backbone Implementation	Brasil,	Mid Oct 2009	June 2009.
		· Conduct a cost/benefit analysis with respect to the existing satellite service with the local service provider taking into consideration the bandwidth improvement. **This task will be carried out by the MEVA II and REDDIG Administration to be completed and presented at the next ATF Meeting.**		MEVAII and REDDIG Administrator	Next Task Force Meeting	June 2009.

		· Study the terrestrial alternative backbone with regards to the satellite. Argentina indicated they will conduct the study along with USA/FAA. **The results should be ready by next ATF meeting.**		Argentina and USA/FAA	Next Task Force Meeting	June 2009.
5-4	MTA-MTA Testing using Internet	FAA Representative indicated that a proposed process for MTA-to-MTA testing using the internet will be developed. **This should be ready for review by 26 September 2009 when it will be sent to Members for review.** Also, FAA will present results of any tests conducted with other States by next ATF meeting.	MTA-MTA Testing	USA/FAA	26 Sept 2009.	June 2009.

ATTACHMENT D

TABLE/TABLA CNS 1Ba –ROUTERS REGIONAL PLAN / PLAN REGIONAL DE ENCAMINADORES
REGION CAR/ CAR REGION

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection / Tipo de interconexión	Connected Router-Encaminador Conectado	Link Speed-Velocidad del enlace	Link Protocol-Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5	6	7	8	9
Anguilla	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Antigua	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Aruba	IP	Intra Regional	Jamaica (Kingston), Curacao	TBD	IPv4	MEVA	TBD	
Bahamas/Nassau	IP	Intra Regional	Haiti (Port –of-Prince), USA (Miami)	TBD	IPv4	MEVA	TBD	
Barbados	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Belice/Belice	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
British Virgin Islands (Tortola)	IP	Intra Regional	USA (Miami)	TBD	IPv4	MEVA	TBD	
Cayman I.	IP	Intra Regional	Jamaica (Kingston), Cuba (La Habana)	TBD	IPv4	MEVA	TBD	
Costa Rica/San José	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
Cuba/La Habana	IP	Intra Regional	Haiti (Port –of-Prince), USA (Miami), Jamaica (Kingston), Cayman I., Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	MEVA	TBD	
			Mexico	TBD	IPv4	TBD	TBD	

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection / Tipo de interconexión	Connected Router-Encaminador Conectado	Link Speed-Velocidad del enlace	Link Protocol-Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5	6	7	8	9
Curacao	IP	Intra Regional	Aruba, Dominican Republic (Sto. Domingo), Haiti (Port of Prince), Jamaica (Kingston), Puerto Rico (San Juan)	TBD	IPv4	MEVA	TBD	
Dominican Republic/ Sto. Domingo	IP	Intra Regional	Haiti (Port of Prince), Puerto Rico (San Juan), Curacao / Miami	TBD	IPv4	MEVA	TBD	
El Salvador/San Salvador	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
French Antilles (Martinique)/ Fort-au-France	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
French Antilles (Guadalupe)/ Point-a Pitre	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Grenada	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Guatemala/La Aurora	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
Haiti/Port au Prince	IP	Intra Regional	Bahamas, Cuba (La Habana), Curacao, Dominican Republic (Sto. Domingo), Jamaica (Kingston)	TBD	IPv4	MEVA	TBD	
Honduras/Tegucigalpa COCESNA	IP	Intra Regional	Belice (Belice), Costa Rica (San Jose), Guatemala (La Aurora), Honduras (San Pedro Sula), Nicaragua (Managua),	TBD	IPv4	CAMSAT	2008	
		Inter/ Intra Regional	Cuba (La Habana), NAM (Atlanta), Panama, USA (Miami)	TBD	IPv4	MEVA	TBD	
		Intra Regional	Mexico	TBD	IPv4	TBD	TBD	
Honduras/ San Pedro Sula	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection / Tipo de interconexión	Connected Router-Encaminador Conectado	Link Speed-Velocidad del enlace	Link Protocol-Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5	6	7	8	9
Jamaica/Kingston	IP	Intra Regional	Aruba, Cayman I., Cuba (La Habana), Curacao, Haiti (Port of Prince).	TBD	IPv4	MEVA	TBD	
Mexico	IP	Inter/ Intra Regional	Cuba (La Habana), Honduras (Tegucigalpa), NAM (Atlanta),	TBD	IPv4	TBD	TBD	
Monserrat	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Nicaragua Managua	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
Puerto Rico/San Juan	IP	Inter/ Intra Regional	Curacao, Dominican Republic (Sto. Domingo), USA (Miami).	TBD	IPv4	MEVA	TBD	
			SAM (Caracas), Trinidad and Tobago (Piarco)	TBD	IPv4	TBD	TBD	
St. Kitts & Nives	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
St. Lucia	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
St Marteen	IP	Intra Regional	USA (Miami)	TBD	IPv4	MEVA	TBD	
St. Vincent	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Turks & Caicos/Grand Turk	IP	Intra Regional	USA (Miami)	TBD	IPv4	MEVA	TBD	

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection / Tipo de interconexión	Connected Router-Encaminador Conectado	Link Speed-Velocidad del enlace	Link Protocol-Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5	6	7	8	9
Trinidad and Tobago/Piarco	IP	Intra Regional	Angula, Antigua, Barbados, French Antilles (Fort-au-France, Point-a-Pitre), Grenada, Monserrat, St. Kitts & Nives, St. Lucia, St. Vincent	TBD	IPv4	Eastern Caribbean Network	TBD	
		Intra Regional	Puerto Rico (San Juan)	TBD	IPv4	TBD	TBD	
		Inter Regional	EUR (Madrid),	TBD	IPv4	TBD	TBD	
		Inter Regional	SAM (Caracas)	TBD	IPv4	REDDIG	TBD	

TABLE/TABLA CNS 1Ba –ROUTERS REGIONAL PLAN / PLAN REGIONAL DE ENCAMINADORES
SAM REGION / REGIÓN SAM

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection/ Tipo de interconexión	Connected Router- Encaminador Conectado	Link Speed- Velocidad del enlace	Link Protocol- Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5		7	8	9
Argentina/Buenos Aires	IP	Inter/Intra Regional	AFI (Johannesburgo), Bolivia (La Paz), Chile (Santiago), Brazil (Brasilia), Paraguay (Asunción), Perú (Lima), and/y Uruguay (Montevideo)	TBD	IPv4	CAFSAT REDDIG	2008	
Bolivia/La Paz	IP	Intra Regional	Argentina (Buenos Aires), Brazil (Brasilia) and/y Perú (Lima)	TBD	IPv4	REDDIG	2010	
Brazil/Manaus	IP	Intra Regional	Colombia (Bogotá), Guyana (Georgetown), Guyana Francesa (Cayena), Perú (Lima), Surinam(Paramaribo), and/y Venezuela (Caracas)	TBD	IPv4	REDDIG	2009	
Brazil/Brasilia	IP	Inter/Intra Regional	AFI (Dakar),EUR(Madrid) NAM (Atlanta) via Colombia (Bogotá), Argentina (Buenos Aires), Bolivia (La Paz), Paraguay (Asunción), and/y Uruguay (Montevideo)	TBD	IPv4	CAFSAT REDDIG	2009	
Chile/Santiago	IP	Inter/Intra Regional	PAC (Christchurch), Argentina (Buenos Aires) and/y Perú (Lima)	TBD	IPv4	PTT REDDIG	2008	

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection/ Tipo de interconexión	Connected Router- Encaminador Conectado	Link Speed- Velocidad del enlace	Link Protocol- Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5		7	8	9
Colombia/Bogotá	IP	Inter/Intra Regional	NAM (Atlanta)*, Ecuador (Guayaquil), Brazil (Manaus); Perú (Lima); and/y Venezuela (Caracas)	TBD	IPv4	MEVA II Interconnection*/ Interconexión MEVA II REDDIG* REDDIG	2009	
Ecuador/Guayaquil	IP	Intra Regional	Colombia (Bogotá), Perú (Lima), and/y Venezuela (Caracas)	TBD	IPv4	REDDIG	2010	
French Guiana/Cayenne Guyana Francesa/ Cayena	IP	Intra Regional	Brazil (Manaus), and/y Surinam (Paramaribo)	TBD	IPv4	REDDIG	2010	
Guyana/Georgetown	IP	Inter/Intra Regional	C-CAR (Piarco), Brazil (Manaos), Surinam(Paramaribo) and/y Venezuela(Caracas)	TBD	IPv4	REDDIG	2010	
Panamá/Panamá	IP	Inter/Intra Regional	NAM (Atlanta) Colombia (Bogota)	TBD	IPv4	MEVA II MEVA II Interconnection/ Interconexión MEVAII REDDIG	2010	
Paraguay/Asunción	IP	Intra Regional	Argentina (Buenos Aires), and/y Brazil (Brasilia)	TBD	IPv4	REDDIG	2008	
Perú/Lima	IP	Inter/Intra Regional	NAM(Atlanta), Argentina (Buenos Aires), Bolivia (La Paz), Brazil (Manaos), Chile(Santiago), Colombia (Bogotá), Ecuador (Guayaquil and/y Venezuela (Caracas)	TBD	IPv4	REDDIG	2009	
Suriname/Paramaribo	IP	Inter Regional	Brazil (Manaos), Guyana Francesa (Cayena) and/y Venezuela (Caracas)	TBD	IPv4	REDDIG	2010	
Uruguay/Montevideo	IP	Intra Regional	Argentina (Buenos Aires) and/y Brazil (Brasilia)	TBD	IPv4	REDDIG	2010	

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection/ Tipo de interconexión	Connected Router- Encaminador Conectado	Link Speed- Velocidad del enlace	Link Protocol- Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5		7	8	9
Venezuela/Caracas	IP	Inter/Intra Regional	CAM (San Juan), EUR(Madrid), Brazil (Manaus), Colombia (Bogotá), Ecuador (Quito), Guyana (Georgetown), Suriname (Paramaribo) and/y Trinidad&Tobago (Piarco)	TBD	IPv4	MEVA II Interconnection/ Interconexión MEVAII REDDIG PTT REDDIG	2009	

TABLE CNS 1BB – ATN GROUND-GROUND APPLICATIONS PLAN / TABLA CNS1 B – PLAN DE APLICACIONES TIERRA-TIERRA ATN (CAR REGION / REGIÓN CAR)

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location / Administración y localidad	**Application Type / Tipo de Aplicación**	**Connected with Administration & Location of / Conectada con Administración y Localidad de**	**Used Standard / Norma usada**	**Implementation Date / Fecha de Implementación**	**Remarks/ Observaciones**
1	**2**	**3**	**4**	**5**	**6**
ARUBA, Aruba	AMHS	FAA-Atlanta	IPS	TBD	
BAHAMAS, Nassau,	AMHS	FAA-Atlanta	IPS	TBD	
CAYMAN ISLANDS, Grand Cayman ISLAS CAIMANES , Gran Caimán	AMHS	FAA-Atlanta	IPS	TBD	
CUBA, Havana CUBA, La Habana	AMHS	FAA-Atlanta	IPS	2009	
	AIDC	TBD	TBD	TBD	
DOMINICAN REPUBLIC, Santo Domingo/ REPÚBLICA DOMINICANA, Santo Domingo	AMHS	FAA-Atlanta	IPS	2008	
	AIDC	TBD	TBD	TBD	
HAITI, Port-au-Prince/ HAITÍ, Puerto Príncipe	AMHS	FAA-Atlanta	IPS	2009	
HONDURAS, Tegucigalpa (COCESNA)	AMHS	FAA-Atlanta	IPS	2008	
	AIDC	TBD	TBD	TBD	
JAMAICA, Kingston	AMHS	FAA-Atlanta	IPS	2008	
	AIDC	TBD	IPS	TBD	

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location / Administración y localidad	**Application Type / Tipo de Aplicación**	**Connected with Administration & Location of / Conectada con Administración y Localidad de**	**Used Standard / Norma usada**	**Implementation Date / Fecha de Implementación**	**Remarks/ Observaciones**
1	**2**	**3**	**4**	**5**	**6**
MEXICO, Mexico City MÉXICO, Ciudad de México	AMHS	FAA-Atlanta	IPS	TBD	
	AIDC	FAA- TBD	TBD	TBD	
	AIDC	TBD	TBD	TBD	
NETHERLANDS ANTILLES (Curacao) / ANTILLAS NEERLANDESAS (Curazao)	AMHS	FAA-Atlanta	IPS	TBD	
TRINIDAD AND TOBAGO, Piarco	AMHS	FAA-Atlanta	IPS	TBD	
	AIDC	TBD	TBD	TBD	
UNITED STATES, Atlanta ESTADOS UNIDOS, Atlanta	AMHS	Aruba	IPS	TBD	03 2007 - USA Availability to connect to the CAR/SAM Regions/ Disponibilidad de conectar con las Regiones CAR/SAM
	AMHS	Bahamas Nassau	IPS	TBD	
	AMHS	Cayman Islands, Grand Cayman Islas Caimanes , Gran Caimán	IPS	TBD	
	AMHS	Cuba, Havana Cuba, La Habana	IPS	2009	
	AMHS	Dominican Republic, Santo Domingo/ República Dominicana, Santo Domingo	IPS	2008	
	AMHS	Haiti, Port-au-Prince/ Haití, Puerto Príncipe	IPS	2008	
	AMHS	Honduras, Tegucigalpa (COCESNA)	IPS	2008	

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location / Administración y localidad	**Application Type / Tipo de Aplicación**	**Connected with Administration & Location of / Conectada con Administración y Localidad de**	**Used Standard / Norma usada**	**Implementation Date / Fecha de Implementación**	**Remarks/ Observaciones**
1	**2**	**3**	**4**	**5**	**6**
	AMHS	Jamaica, Kingston	IPS	2008	
	AMHS	Mexico, Mexico	IPS	TBD	
	AMHS	Netherlands Antilles (Curacao) / Antillas Neerlandesas (Curazao)	IPS	TBD	
	AMHS	Panama, Panama City/ Panamá, Ciudad de Panamá	IPS	TBD	
	AMHS	Peru, Lima	IPS	TBD	
	AMHS	Trinidad and Tobago, Piarco	IPS	2009	
	AMHS	Venezuela, Maiquetía	IPS	2009	
UNITED STATES, TBD ESTADOS UNIDOS, Por determinar	AIDC	MEXICO, TBD	TBD	TBD	
	AIDC	TBD	TBD	TBD	

TABLE CNS 1BB –GROUND-GROUND APPLICATIONS PLAN / TABLA CNS1 BB – PLAN DE APLICACIONES TIERRA-TIERRA SAM REGION / REGIÓN SAM

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location/ Administración y localidad	**Application Type/ Tipo de Aplicación**	**Conneted with Administration & Location of/ Conectada con Administración y Localidad de.**	**Used Standard / Norma usada**	**Implementation Date/ Fecha de Implementación**	**Remarks/ Observaciones**
1	2	3	4	5	6
Argentina, Buenos Aires	AMHS	Bolivia, Brazil, Chile, Paraguay Perú, Uruguay and/y AFI	IPS	2005	
	AIDC	Bolivia, Brazil, Chile, Paraguay Perú, Uruguay and/y AFI	IPS	TBD / Por determinar	
Bolivia , La Paz	AMHS	Argentina , Brazil and/y Perú	IPS	2010	
	AIDC	Argentina , Brazil and/y Perú	IPS	TBD / Por determinar	
Brazil, Brasilia	AMHS	Argentina, Bolivia, Paraguay, Uruguay, NAM, EUR, AFI	IPS	2008	
	AIDC	Argentina, Bolivia, Paraguay, Uruguay, NAM, EUR, AFI	IPS	TBD/ Por determinar	
Brazil, Manaus	AMHS	Colombia, Guyana, Guyana Francesa, Peru, Surinam and/y Venezuela	IPS	2008	
	AIDC	Colombia, Guyana, Guyana Francesa, Perú Surinam and/y Venezuela	IPS	TBD/ Por determinar	
Chile, Santiago	AMHS	Argentina, Perú and/y PAC	IPS	2009	
	AIDC	Argentina, Perú and/y PAC	IPS	TBD/ Por determinar	
Colombia , Bogotá	AMHS	Brazil, Ecuador, Perú and/y Venezuela	IPS	2008	
	AIDC	Brazil, Ecuador, Perú and/y Venezuela	IPS	TBD/ Por determinar	
Ecuador ,Quito	AMHS	Colombia, Perú and/y Venezuela	IPS	2009	
	AIDC	Colombia, Perú and/y Venezuela	IPS	TBD/ Por determinar	
French Guiana,, Cayenne Guyana Francesa, Cayena	AMHS	Brazil, Surinam and/y Venezuela	IPS	2009	
	AIDC	Brazil, Surinam and/y Venezuela	IPS	TBD/ Por determinar	
Guyana, Georgetown	AMHS	Brazil, Trinidad Tobago and/y Venezuela	IPS	2009	
	AIDC	Brazil, Trinidad Tobago and/y Venezuela	IPS	TBD/ Por determinar	
Panamá, Panamá	AMHS	Colombia, NAM	IPS	2008	
	AIDC	Colombia, NAM	IPS	TBD/ Por determinar	
Paraguay, Asunción	AMHS	Argentina, Brazil	IPS	2007	
	AIDC	Argentina, Brazil	IPS	TBD/ Por determinar	
Perú, Lima	AMHS	Argentina, Bolivia, Brazil, Chile Colombia, Ecuador, Venezuela and/y NAM	IPS	2007	

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location/ Administración y localidad	**Application Type/ Tipo de Aplicación**	**Conneted with Administration & Location of/ Conectada con Administración y Localidad de.**	**Used Standard / Norma usada**	**Implementation Date/ Fecha de Implementación**	**Remarks/ Observaciones**
1	2	3	4	5	6
	AIDC	Argentina, Bolivia, Brazil, Chile Colombia, Ecuador Venezuela and/y NAM	IPS	TBD/ Por determinar	
Suriname, Paramaribo	AMHS	Brazil, French Guyana and/y Venezuela	IPS	2009	
	AIDC	Brazil, French Guyana and/y Venezuela	IPS	TBD/ Por determinar	
Uruguay, Montevideo	AMHS	Argentina, Brazil	IPS	2008	
	AIDC	Argentina, Brazil	IPS	TBD/ Por determinar	
Venezuela, Caracas	AMHS	Brazil, Colombia, Ecuador, Guyana, Guyana Francesa , Perú, Suriname, NAM, CAR and/y EUR	IPS	2008	
	AIDC	Brazil, Colombia, Ecuador Guyana, Guyana Francesa , Perú, Suriname, NAM, CAR and/y EUR	IPS	TBD/ Por determinar	

ATTACHMENT E

TABLE/TABLA CNS 1Ba –ROUTERS REGIONAL PLAN / PLAN REGIONAL DE ENCAMINADORES
SAM REGION / REGIÓN SAM

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection/ Tipo de interconexión	Connected Router- Encaminador Conectado	Link Speed- Velocidad del enlace	Link Protocol- Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5		7	8	9
Argentina/Buenos Aires	IP	Inter/Intra Regional	AFI (Johannesburgo), Bolivia (La Paz), Chile (Santiago), Brazil (Brasilia), Paraguay (Asunción), Perú (Lima), and/y Uruguay (Montevideo)	TBD	IPv4	CAFSAT REDDIG	2008	
Bolivia/La Paz	IP	Intra Regional	Argentina (Buenos Aires), Brazil (Brasilia) and/y Perú (Lima)	TBD	IPv4	REDDIG	2010	
Brazil/Manaus	IP	Intra Regional	Colombia (Bogotá), Guyana (Georgetown), Guyana Francesa (Cayena), Perú (Lima), Surinam(Paramaribo), and/y Venezuela (Caracas)	TBD	IPv4	REDDIG	2009	
Brazil/Brasilia	IP	Inter/Intra Regional	AFI (Dakar),EUR(Madrid) NAM (Atlanta) via Colombia (Bogotá), Argentina (Buenos Aires), Bolivia (La Paz), Paraguay (Asunción), and/y Uruguay (Montevideo)	TBD	IPv4	CAFSAT REDDIG	2009	
Chile/Santiago	IP	Inter/Intra Regional	PAC (Christchurch), Argentina (Buenos Aires) and/y Perú (Lima)	TBD	IPv4	PTT REDDIG	2008	

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection/ Tipo de interconexión	Connected Router- Encaminador Conectado	Link Speed- Velocidad del enlace	Link Protocol- Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5		7	8	9
Colombia/Bogotá	IP	Inter/Intra Regional	NAM (Atlanta)*, Ecuador (Guayaquil), Brazil (Manaus); Perú (Lima); and/y Venezuela (Caracas)	TBD	IPv4	MEVA II Interconnection*/ Interconexión MEVA II REDDIG* REDDIG	2009	
Ecuador/Guayaquil	IP	Intra Regional	Colombia (Bogotá), Perú (Lima), and/y Venezuela (Caracas)	TBD	IPv4	REDDIG	2010	
French Guiana/Cayenne Guyana Francesa/ Cayena	IP	Intra Regional	Brazil (Manaus), and/y Surinam (Paramaribo)	TBD	IPv4	REDDIG	2010	
Guyana/Georgetown	IP	Inter/Intra Regional	C-CAR (Piarco), Brazil (Manaos), Surinam(Paramaribo) and/y Venezuela(Caracas)	TBD	IPv4	REDDIG	2010	
Panamá/Panamá	IP	Inter/Intra Regional	NAM (Atlanta) Colombia (Bogota)	TBD	IPv4	MEVA II MEVA II Interconnection/ Interconexión MEVAII REDDIG	2010	
Paraguay/Asunción	IP	Intra Regional	Argentina (Buenos Aires), and/y Brazil (Brasilia)	TBD	IPv4	REDDIG	2008	
Perú/Lima	IP	Inter/Intra Regional	NAM(Atlanta), Argentina (Buenos Aires), Bolivia (La Paz), Brazil (Manaos), Chile(Santiago), Colombia (Bogotá), Ecuador (Guayaquil and/y Venezuela (Caracas)	TBD	IPv4	REDDIG	2010	
Suriname/Paramaribo	IP	Inter Regional	Brazil (Manaos), Guyana Francesa (Cayena) and/y Venezuela (Caracas)	TBD	IPv4	REDDIG	2010	
Uruguay/Montevideo	IP	Intra Regional	Argentina (Buenos Aires) and/y Brazil (Brasilia)	TBD	IPv4	REDDIG	2010	

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection/ Tipo de interconexión	Connected Router- Encaminador Conectado	Link Speed- Velocidad del enlace	Link Protocol- Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5		7	8	9
Venezuela/Caracas	IP	Inter/Intra Regional	NAM (Atlanta), EUR(Madrid), Brazil (Manaus), Colombia (Bogotá), Ecuador (Quito), French Guyana (Cayenne) Guyana (Georgetown), Lima (Perú) Suriname (Paramaribo) and/y Trinidad&Tobago (Piarco)	TBD	Pv4	MEVA II /REDDIG Interconnection PTT REDDIG	2010	

ATTACHMENT F

TABLE CNS 1BB – ATN GROUND-GROUND APPLICATIONS PLAN / TABLA CNS1 B – PLAN DE APLICACIONES TIERRA-TIERRA ATN (CAR REGION / REGIÓN CAR)

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location / Administración y localidad	**Application Type / Tipo de Aplicación**	**Connected with Administration & Location of / Conectada con Administración y Localidad de**	**Used Standard / Norma usada**	**Implementation Date / Fecha de Implementación**	**Remarks/ Observaciones**
1	**2**	**3**	**4**	**5**	**6**
ARUBA, Aruba	AMHS	FAA-Atlanta	IPS	TBD	
BAHAMAS, Nassau,	AMHS	FAA-Atlanta	IPS	TBD	
CAYMAN ISLANDS, Grand Cayman ISLAS CAIMANES , Gran Caimán	AMHS	FAA-Atlanta	IPS	TBD	
CUBA, Havana CUBA, La Habana	AMHS	FAA-Atlanta	IPS	2009	
	AIDC	TBD	TBD	TBD	
DOMINICAN REPUBLIC, Santo Domingo/ REPÚBLICA DOMINICANA, Santo Domingo	AMHS	FAA-Atlanta	IPS	2008	
	AIDC	TBD	TBD	TBD	
HAITI, Port-au-Prince/ HAITÍ, Puerto Príncipe	AMHS	FAA-Atlanta	IPS	2009	
HONDURAS, Tegucigalpa (COCESNA)	AMHS	FAA-Atlanta	IPS	2008	
	AIDC	TBD	TBD	TBD	

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location / Administración y localidad	**Application Type / Tipo de Aplicación**	**Connected with Administration & Location of / Conectada con Administración y Localidad de**	**Used Standard / Norma usada**	**Implementation Date / Fecha de Implementación**	**Remarks/ Observaciones**
1	**2**	**3**	**4**	**5**	**6**
JAMAICA, Kingston	AMHS	FAA-Atlanta	IPS	2008	
	AIDC	TBD	IPS	TBD	
MEXICO, Mexico City MÉXICO, Ciudad de México	AMHS	FAA-Atlanta	IPS	TBD	
	AIDC	FAA- TBD	TBD	TBD	
	AIDC	TBD	TBD	TBD	
NETHERLANDS ANTILLES (Curacao) / ANTILLAS NEERLANDESAS (Curazao)	AMHS	FAA-Atlanta	IPS	TBD	
TRINIDAD AND TOBAGO, Piarco	AMHS	FAA-Atlanta	IPS	TBD	
	AIDC	TBD	TBD	TBD	
UNITED STATES, Atlanta ESTADOS UNIDOS, Atlanta	AMHS	Aruba	IPS	TBD	03 2007 - USA Availability to connect to the CAR/SAM Regions/ Disponibilidad de conectar con las Regiones CAR/SAM
	AMHS	Bahamas Nassau	IPS	TBD	
	AMHS	Cayman Islands, Grand Cayman Islas Caimanes , Gran Caimán	IPS	TBD	
	AMHS	Cuba, Havana Cuba, La Habana	IPS	2009	
	AMHS	Dominican Republic, Santo Domingo/ República Dominicana, Santo Domingo	IPS	2008	
	AMHS	Haiti, Port-au-Prince/	IPS	2008	

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location / Administración y localidad	**Application Type / Tipo de Aplicación**	**Connected with Administration & Location of / Conectada con Administración y Localidad de**	**Used Standard / Norma usada**	**Implementation Date / Fecha de Implementación**	**Remarks/ Observaciones**
1	**2**	**3**	**4**	**5**	**6**
		Haití, Puerto Príncipe			
	AMHS	Honduras, Tegucigalpa (COCESNA)	IPS	2008	
	AMHS	Jamaica, Kingston	IPS	2008	
	AMHS	Mexico, Mexico	IPS	TBD	
	AMHS	Netherlands Antilles (Curacao) / Antillas Neerlandesas (Curazao)	IPS	TBD	
	AMHS	Panama, Panama City/ Panamá, Ciudad de Panamá	IPS	TBD	
	AMHS	Peru, Lima	IPS	TBD	
	AMHS	Trinidad and Tobago, Piarco	IPS	2009	
	AMHS	Venezuela, Maiquetía	IPS	2009	
UNITED STATES, TBD ESTADOS UNIDOS, Por determinar	AIDC	MEXICO, TBD	TBD	TBD	
	AIDC	TBD	TBD	TBD	

ATTACHMENT G

Table CNS 1Bb-ATN Ground Ground Applications Plans (SAM Region)

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location/ Administración y localidad	**Application Type/ Tipo de Aplicación**	**Conneted with Administration & Location of/ Conectada con Administración y Localidad de.**	**Used Standard / Norma usada**	**Implementation Date/ Fecha de Implementación**	**Remarks/ Observaciones**
1	2	3	4	5	6
Argentina, Buenos Aires	AMHS	Bolivia, Brasil, Chile, Paraguay Perú, Uruguay y AFI	IPS	2005	
	AIDC	Bolivia, Brasil, Chile, Paraguay Perú, Uruguay y AFI	IPS	TBD /Por determinar	
Bolivia , La Paz	AMHS	Argentina , Brasil y Perú	IPS	2010	
	AIDC	Argentina , Brasil y Perú	IPS	TBD /Por determinar	
Brasil, Brasilia	AMHS	Argentina, Bolivia,Paraguay,Uruguay, NAM,EUR,AFI	IPS	2008	
	AIDC	Bolívia	IPS	Segundo o cronograma do Plano de interconexão	
Brasil, Manaus	AMHS	Colombia, Guyana, Guyana Francesa, Perú , Surinam y Venezuela	IPS	2008	
	AIDC	Colombia, Guyana, Guyana Francesa ,Perú , Surinam y Venezuela, Bolívia	IPS	Segundo o cronograma do Plano de interconexão	
Brasi, Curitiba	AIDC	Argentina, Uuruguay, Paraguay, Bolívia	IPS	Segundo o cronograma do Plano de interconexão	
Chile, Santiago	AMHS	Argentina, Perú y PAC.	IPS	2009	
	AIDC	Argentina, Perú y PAC.	IPS	TBD/Por determinar	
Colombia , Bogotá	AMHS	Brasil , Ecuador, Perú y Venezuela	IPS	2008	
	AIDC	Brasil, Ecuador,Perú y Venezuela	IPS	TBD/Por determinar	
Ecuador ,Quito	AMHS	Colombia , Perú y Venezuela	IPS	2009	
	AIDC	Colombia , Perú y Venezuela	IPS	TBD/Por determinar	
French Guyana , Cayenne	AMHS	Brasil, Surinam y Venezuela	IPS	2009	
	AIDC	Brasil, Surinam y Venezuela	IPS	TBD/Por determinar	
Guyana, Georgetown	AMHS	Brasil, Trinidad Tobago y Venezuela	IPS	2009	
	AIDC	Brasil, Trinidad Tobago y Venezuela	IPS	TBD/Por determinar	
Panamá,	AMHS	Colombia, NAM	IPS	2008	

ATN GROUND-GROUND APPLICATIONS PLAN / PLAN DE APLICACIONES TIERRA-TIERRA					
Administration and Location/ Administración y localidad	**Application Type/ Tipo de Aplicación**	**Conneted with Administration & Location of/ Conectada con Administración y Localidad de.**	**Used Standard / Norma usada**	**Implementation Date/ Fecha de Implementación**	**Remarks/ Observaciones**
1	2	3	4	5	6
Ciudad de Panamá	AIDC	Colombia, NAM	IPS	TBD/Por determinar	
Paraguay, Asunción	AMHS	Argentina, Brasil	IPS	2007	
	AIDC	Argentina, Brasil	IPS	TBD/Por determinar	
Perú	AMHS	Argentina, Bolivia Brasil, Chile Colombia, Ecuador, Venezuela y NAM	IPS	2010	
	AIDC	Argentina, Bolivia, Brasil, Chile Colombia, Ecuador Venezuela y NAM	IPS	TBD/Por determinar	
Surinam	AMHS	Brasil, French Guyana y Venezuela	IPS	2009	
	AIDC	Brasil, French Guyana y Venezuela	IPS	TBD/Por determinar	
Uruguay	AMHS	Argentina, Brasil	IPS	2008	
	AIDC	Argentina, Brasil	IPS	TBD/Por determinar	
Venezuela	AMHS	Brasil, Colombia, Ecuador, Guyana, Guyana Francesa , Perú, Suriname, NAM, CAR y EUR	IPS	2010	
	AIDC	Brasil, Colombia, Ecuador Guyana, Guyana Francesa , Perú, Suriname, NAM,CAR y EUR	IPS	TBD/Por determinar	

ATTACHMENT H

REVIEWED SAM CAAS AMHS ADDRESSING PLAN

STATE	AMHS ADDRESSING SPECIFICATICIONS					
	ATTRIBUTION NAME STATES (C)	**ATTRIBUTION NAME ADM (A)**	**NAME PRMD (P)**	**ORGANIZATION NAME (O)**	**ORGANIZATIONAL UNIT NAME (OUI)**	**COMMON NAME (CN)**
ARGENTINA	XX	ICAO	SA	SAEZ SAVC SACD SAME SARE	All four letters indicated in ICAO Doc 7910	AFTN address 8 letter
BOLIVIA	XX	ICAO	BOLIVIA	SLLF	Id	Id
BRAZIL	XX	ICAO	SB	SBEG SBCT SBRF SBBR	Id	Id
CHILE	XX	ICAO	CHILE	SCEL	Id	Id
COLOMBIA	XX	ICAO	COLOMBIA	SKED	Id	Id
ECUADOR	XX	ICAO	ECUADOR	SEGU	Id	Id
FRENCH GUIANA	XX	ICAO	FRENCH GUIANA	SOCA	Id	Id
GUYANA	XX	ICAO	GUYANA	SYGC	Id	Id
PANAMA	XX	ICAO	PANAMA	MPTO	Id	Id
PARAGUAY	XX	ICAO	SG	SGAS	Id	Id
PERU	XX	ICAO	PERU	SPIM	Id	Id
SURINAME	XX	ICAO	SURINAME	SMPM	Id	Id
URUGUAY	XX	ICAO	URUGUAY	SUMU	Id	Id
VENEZUELA	XX	ICAO	VENEZUELA	SVMI	Id	Id

*

ATTACHMENT I

PRELIMINARY PROPOSED AMHS CAAS ADDRESSING SCHEME FOR CAR /NAM REGIONS

ESTADO/STATE	AMHS ADDRESING SPECIFICATION					
	NOMBRE ESTADO/ COUNTRY NAME (C)	NOMBRE ADMD/ ADMD NAME (A)	NOMBRE PRMD/ NAME PRMD (P)	NOMBRE ORGANIZACIÓN/ ORGANIZATION NAME (O)	NOMBRE UNIDAD ORGANIZACIONAL/ (OUI)	NOMBRE COMUN/ COMMON NAME (CN)
Anguilla (U.K.)	XX	ICAO	ANGUILA	TQPF	All the four letter indicated in 7910 ICAO document	AFTN address (8 letters) of usuary
Antigua and Barbuda	XX	ICAO	ANTIGUA AND BARBUDA	TAPA	Id	Id
Barbados	XX	ICAO	BARBADOS	TBPB	Id	Id
British Virgin Islands (U.K.)	XX	ICAO	BRITISH VIRGIN ISLANDS	TUPA	Id	Id
French Antilles	XX	ICAO	FRENCH ANTILLES	TFFF	Id	Id
Grenada	XX	ICAO	GRENADA	TGPG	Id	Id
Montserrat (U.K.)	XX	ICAO	MONTSERRAT	TRPG	Id	Id
Saint Kitts and Nevis	XX	ICAO	SAINT KITTS AND NEVIS	TKPK	Id	Id
Saint Lucia	XX	ICAO	SAINT LUCIA	TLPC	Id	Id
Dominica	XX	ICAO	DOMINICA	TDCF	Id	Id
Saint Vincent and the Grenadines	XX	ICAO	SAINT VINCENT AND THE GRENADINES	TVSV	Id	Id
Trinidad and Tobago	XX	ICAO	TRINIDAD AND TOBAGO	TTZP	Id	Id
Netherlands Antilles	XX	ICAO	NETHERLANDS ANTILLES	TNCC	Id	Id
Aruba	XX	ICAO	ARUBA	TNCA	Id	Id
Bahamas	XX	ICAO	BAHAMAS	MYNN	Id	Id
Cuba	XX	ICAO	CUBA	MUHA	Id	Id
Haiti	XX	ICAO	HAITI	MTPP	Id	Id
Cayman Islands	XX	ICAO	CAYMAN	MWCR	Id	Id

(U.K.)			ISLANDS			
Turks and Caicos Islands (U.K.)	XX	ICAO	TURKS AND CAICOS ISLANDS	MBGT	Id	Id
Jamaica	XX	ICAO	JAMAICA	MKJK	Id	Id
Dominican Republic	XX	ICAO	DOMINICAN REPUBLIC	MDCS	Id	Id
Virgin Islands (U.S.)	XX	ICAO	VIRGIN ISLANDS	TIST	Id	Id
Belize	XX	ICAO	BELIZE	MZBZ	Id	Id
Costa Rica	XX	ICAO	COSTA RICA	MROC	Id	Id
El Salvador	XX	ICAO	EL SALVADOR	MSLP	Id	Id
Guatemala	XX	ICAO	GUATEMALA	MGGT	Id	Id
Honduras	XX	ICAO	HONDURAS	MHTG	Id	Id
Nicaragua	XX	ICAO	NICARAGUA	MNMG	Id	Id
Mexico	XX	ICAO	MEXICO	MMEX MMID MMZT MMTY	Id	Id
Bermuda (U.K.)	XX	ICAO	BERMUDA	TXKF	Id	Id
Puerto Rico	XX	ICAO	PUERTO RICO	TJSJ	Id	Id
Canada	XX	ICAO	CANADA		Id	Id
United States	XX	ICAO	USA		Id	Id

ATTACHMENT J

PROPUESTA DE ACTIVIDADES RELACIONADAS A LA IMPLANTACION DE LA ATN PARA SU CONSIDERACION AL NUEVO SUBGRUPO CNS/ATM

No.	Objetivo Estratégico, Iniciativas Plan Mundial, Plan Regional FASID y/o Conclusiones/Decisiones válidas GREPECAS Strategic Objective, Global Performance Indicators, FASID Regional Plan and/or valid GREPECAS Conclusions/ Decisions	Actividad/ Activity	Acción de seguimiento/ Follow-up Action	Entregable/ Deliverable	Responsable/ Responsible	Fecha límite/ Deadline	Observaciones/ Remarks
1	2	3	4	5	6	7	8
CNS/2-1.3.2	Objetivo EsT: D, IPM/GPI: 17 y 22, Tabla CNS 1Ba-1Bb-1Bc Conclusiones 13/74 y 13/79	Revisar, actualizar y completar el plan de transición inicial para el desarrollo evolutivo de la ATN y sus aplicaciones Review, update and complete inicial transition plan for the evolutionary development of ATN and applications	Oficinas Regionales Reuniones OACI Regional Offices, ICAO Meetings	Plan de Transición Inicial ATN Initial ATN Transition Plan Plan de Transición inicial de las Aplicaciones tierra-tierra del ATN (Parte AiDC) Initial Transition Plan for ATN Ground-ground applications (AIDC) Información para actualización de los Planes del ATN (Tablas CNS 1Ba) Information for the update of ATN Plans (Tables CNS 1Ba Tabla CNS 1Bc Table CNS 1Bc Plan de transición inicial de las aplicaciones tierra aire de la ATN Initial transition plan of ground/air ATN application	Subgrupo CNS/ATM CNS/ATM Subgroup Subgrupo CNS/ATM CNS/ATM Subgroup Subgrupo CNS/ATM CNS/ATM Subgroup Subgrupo CNS/ATM CNS/ATM Subgroup Subgrupo CNS/ATM CNS/ATM Subgroup	End/Finales 2010 March. Marzo 2010 ~~Julio/July 2009~~*End 2010* Octubre/ October 2009 End/ Finales 2010	

No.	Objetivo Estratégico, Iniciativas Plan Mundial, Plan Regional FASID y/o Conclusiones/Decisiones válidas GREPECAS Strategic Objective, Global Performance Indicators, FASID Regional Plan and/or valid GREPECAS Conclusions/ Decisions	Actividad/ Activity	Acción de seguimiento/ Follow-up Action	Entregable/ Deliverable	Responsable/ Responsible	Fecha límite/ Deadline	Observaciones/ Remarks
1	2	3	4	5	6	7	8
CNS/2-1.3.3	Objetivo EsT: D, IPM/GPI: 22 y 17, CNS/COMM Decisión 5/3	Orientar el desarrollo del plan de direccionamiento ATN, de conformidad con los principios y disposiciones técnicas de la OACI Guide de development of ATN addressing plan according to ICAO technical principles and guidelines	Oficinas Regionales Reuniones OACI Regional Offices, ICAO Meetings	Plan de direccionamiento ATN IPv6 IPv6 ATN addressing Plan Politica Inicial de enrutamiento ATN Initial ATN Routing policy Lineamiento para la seguridad usando IP IP security Guideline ~~Política para el enrutamiento IP~~ ~~IP routing policy~~ Documento de interfaz IP IP interface document	Subgrupo CNS/ATM CNS/ATM Subgroup Subgrupo CNS/ATM CNS/ATM Subgroup Subgrupo CNS/ATM CNS/ATM Subgroup ~~Subgrupo CNS/ATM~~ CNS/ATM Subgroup Subgrupo CNS/ATM CNS/ATM Subgroup	Finales ~~2009~~/End ~~2009~~*2010* Finales 2009/End ~~2009~~*2010* Finales 2009/End 2009 Finales 2009/End 2009 Finales 2009/End 2009	

No.	Objetivo Estratégico, Iniciativas Plan Mundial, Plan Regional FASID y/o Conclusiones/Decisiones válidas GREPECAS Strategic Objective, Global Performance Indicators, FASID Regional Plan and/or valid GREPECAS Conclusions/ Decisions	Actividad/ Activity	Acción de seguimiento/ Follow-up Action	Entregable/ Deliverable	Responsable/ Responsible	Fecha límite/ Deadline	Observaciones/ Remarks
1	2	3	4	5	6	7	8
CNS/2-1.3.4	Objetivo EsT:D, IPM/GPI: 17 y 22, Tabla CNS 1Bc, Conclusiones 13/74 y 13/79	Desarrollar planes para la implantación evolutiva de la infraestructura terrestre de la ATN y el desarrollo de aplicaciones tierra-tierra, tales como AIDC y AMHS. Develop plans for the evolutionary implementation of ATN ground infrastructure and the development of ground-ground applications, such as AIDC and AMHS.	Oficinas Regionales Reuniones OACI Regional Offices, ICAO Meetings	Plan de implantación de las Aplicaciones tierra-tierra del ATN (Parte AIDC) Implementation/ Plan for ATN Ground-ground aplications (AIDC) Plan de implantación de las Aplicaciones tierra-tierra del ATN (Parte AMHS) Implementation/ Plan for ATN Ground-ground aplications (AMHS(	Subgrupo CNS/ATM CNS/ATM Subgroup Subgrupo CNS/ATM CNS/ATM Subgroup	End Finales 2010 Julio July 20*10*~~09~~	