



**Agenda Item 6:           Assessment of operational requirements in order to determine the  
implementation of communications and surveillance (CNS) capabilities  
improvement for en-route and terminal area operations**

**FOLLOW-UP TO THE IMPLEMENTATION OF ATN GROUND-GROUND AND AIR-  
GROUND APPLICATIONS**

(Presented by the Project Coordinator)

SUMMARY	
This working paper presents information on the implementation activities of the ATN ground-ground and air-ground applications in the SAM Region.	
REFERENCE:	
<ul style="list-style-type: none"><li>• Report of the eighth workshop/meeting of the SAM Implementation Group (SAM/IG/8) (Lima, Peru, 10-14 October 2012); e</li><li>• Report of the first meeting of the GREPECAS Programmes and Projects Review Committee (PPRC/1) (Mexico City, Mexico, 25-27 April 2012).</li></ul>	
<b>ICAO strategic objectives:</b>	<i>A – Safety C - Environmental Protection and Sustainable Development of Air Transport</i>

1.           **Background**

1.1           SAM/IG/8 meeting examined the activities of the Project *ATN ground-ground and air-ground applications* of the Ground-Ground and Air-ground Telecommunications Infrastructure Programme of GREPECAS, proceeding to its adjustment in accordance with the implementation activities for the improvement to the communications systems, being developed at the SAM/IG meetings, with the support of RLA/06/901 project.

1.2           The amended Project shown in **Appendix A** to this working paper, was presented at the first meeting of the GREPECAS programmes and Projects Review Committee (PPRC/1) with the aim that Said meeting approve the planning, progress and conduct of the Project activities.

## 2. **Analysis**

2.1 The PPRC/1 meeting, after analyzing the Project *ATN ground-ground and air-ground applications*, as well as the remaining GREPECAS programmes projects, called upon States that have provided officers who serve as Project coordinators and experts for the development and implementation of projects to show greater commitment to be able to start the work and achieve the goals set for these projects.

2.2 The PPRC/1 meeting praised the work performed by the programmes and projects coordinators in order to develop the projects, recognizing that they can be improved with time. Likewise, it was highlighted that in the description of the projects, a field be included to define the targets to be attained in easily quantifiable terms and the date to achieve said targets. With this information, PRCC will be able to assess the efficiency and success of the effort performed in each project, and take appropriate action.

2.3 In this respect, the Project Coordinator, in collaboration with the SAM/IG CNS Improvements Implementation Group, should examine the Project, following the indications described in paragraph 2.2. of this working paper. In addition, since most of the activities of this Project lack a person responsible for its conduct, it is expected that during the Meeting the names of the experts for the carrying out of the tasks with no one assigned for its conduct, can be assigned.

## 3. **Action suggested**

3.1 The Meeting is invited to:

- a) Take note of the information presented in the working paper;
- b) Review the activities of the Project *ATN ground-ground and air-ground applications* taking into account the indications in paragraph 2.3, and
- c) Analyze any other aspects related with this Agenda Item that the Meeting might deem necessary.

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## APPENDIX A

## PROJECT ATN GROUND-GROUND AND AIR GROUND APPLICATIONS IN THE SAM REGION

SAM Region	PROJECT DESCRIPTION (PD)	PD N° D2	
Programme	Project Title	Starting Date	Ending Date
Ground-ground and Air-ground Telecommunications Infrastructure (Programme Coordinator: Onofrio Smarrelli)	ATN Ground-ground and Air-ground Applications in the SAM Region  <i>Project Coordinator: Omar Gouarnalusse (Argentina)</i> <i>Contributing experts: Javier Vittor (Argentina), Andres Jansen (Brazil)</i>	May 2010	December 2014
<b>Objective</b>	Develop the implementation of ATN ground-ground and air-ground applications in the SAM Region		
<b>Scope</b>	Implementation of SAM ATN ground-ground and air-ground applications, including, at least: <ul style="list-style-type: none"> <li>Operational integration of international AMHS connections in the SAM Region</li> <li>Operational integration of international AIDC connections in the SAM Region</li> <li>Guidelines for the implementation of DCL, DATIS, DVOLMET &amp; CPDLC services through VDL in the SAM Region</li> </ul>		
<b>Metrics</b>	<ul style="list-style-type: none"> <li>Number of AMHS interconnections as per CAR/SAM FASID Table 1Bb</li> <li>Number of AIDC interconnections as per CAR/SAM FASID Table 1Bb</li> <li>Drafting of following guidelines: Guideline for the use of AIDC / Guideline for the establishment of ground-air data links in terminal, approach and aerodrome areas / Guideline for the implementation of DCL, DATIS and DVOLMET systems / Guideline for the implementation of CPDLC through VDL in the SAM Region</li> </ul>		
<b>Strategy</b>	<ul style="list-style-type: none"> <li>All tasks will be conducted by experts nominated by States and organizations of the SAM Region members of the project <i>ATN Ground-ground and Air-ground Applications in the SAM Region</i>, under management of the project coordinator, in coordination with the programme coordinator. Communications among Project members, as well as between the Project coordinator and programme coordinator, shall be carried out through teleconferences and the Internet. In addition, the programme coordinator, together with the project coordinator and the contributing experts, can convene at SAM/IG implementation meetings</li> <li>Once studies are completed, the results will be submitted to the ICAO programme coordinator as a final consolidated document for its analysis, review, approval and presentation at the GREPECAS PPRC</li> </ul>		

<b>Justification</b>	<ul style="list-style-type: none"> <li>The implementation of ground-ground and air-ground data communications infrastructure will contribute to the reduction of air traffic control incidents, increasing the capacity of the transition of information with regard to the currently analogue based applications</li> <li>This project contributes to the implementation of the SAM PFF SAM CNS 01, CNS 02, ATM 05, ATM 06, MET 03, MET04 and AIM 02 of the <i>Air Navigation System Performance-Based Implementation Plan for the SAM Region (SAM PBIP)</i></li> </ul>
<b>Related Projects</b>	<ul style="list-style-type: none"> <li>Automation (systems interconnection)</li> <li>ATFM</li> <li>Improve ATM Situational Awareness</li> <li>Implementation of the ICAO New Flight Plan Format</li> </ul>

<b>Project Deliverables</b>	<b>Relationship with Performance Based Regional Plan (PFF)</b>	<b>Responsible</b>	<b>Status of Implementation<sup>1</sup></b>	<b>Delivery Date</b>	<b>Remarks</b>
Document on regional strategy for the implementation of ground-ground and air-ground applications in the SAM Region	PFF SAM CNS 01 PFF SAM CNS 02	Omar Gouarnalusse (Argentina)		June 2012	An initial review to the strategy was presented at SAM/IG/8 meeting (Lima, Peru, 10-14 October 2011)
Guideline for the use of AIDC with the aim of reducing coordination errors	PFF SAM CNS 01 PFF SAM ATM 06	Javier Vittor (Argentina)		November 2012	The guideline will be based on the Argentinean experience in the IP AIDC implementation between the Cordoba and Ezeiza ACCs. The GREPECAS-approved <i>Interface control document</i> (ICD) for data communications among ATS units in the Caribbean and South American Regions will be reviewed.

<sup>1</sup>**Gray:** Activity has not started**Green:** Activity has or will deliver planned milestone as scheduled**Yellow:** Activity is behind schedule on milestone, but still within acceptable parameters to deliver milestone on time**Red:** Activity has failed to deliver milestone on time, mitigation measures need to be identified and implemented

Project Deliverables	Relationship with Performance Based Regional Plan (PFF)	Responsible	Status of Implementation <sup>1</sup>	Delivery Date	Remarks
Guideline for the establishment of ground-air data links in terminal, approach and aerodrome areas	PFF SAM CNS 02 PFF SAM ATM 06	ICAO		October 2012	An initial plan for data link implementation was drafted, and presented at SAM/IG/8 meeting. Pending is the designation of an expert for the conduct of this activity
Guideline for the implementation of DCL, DATIS, DVOLMET systems	PFF SAM CNS 02 PFF SAM ATM 06 PFFs SAM MET 03 y 04	Andrés Jansen (Brazil)		June 2013	The guideline will be based on the Brazilian experience in the implementation of these systems
Operational integration of AMHS among States	PFF SAM CNS 01 PFF SAM ATM 05 PFF SAM ATM 06 PFF SAM MET 03, PFF SAM MET 04 PFF SAM AIM 02	States / Project Coordinator / Programme Coordinator		June 2014	Of all the AMHS installed in the Region, the following are interconnected in AMHS (P1 Protocol) Peru-Colombia, Guyana-Suriname, Argentina-Paraguay Other States are in the process of implementation, having drafted and signed MoUs to this end Follow-up to the implementation of AMHS integration is carried out at SAM/IG meetings

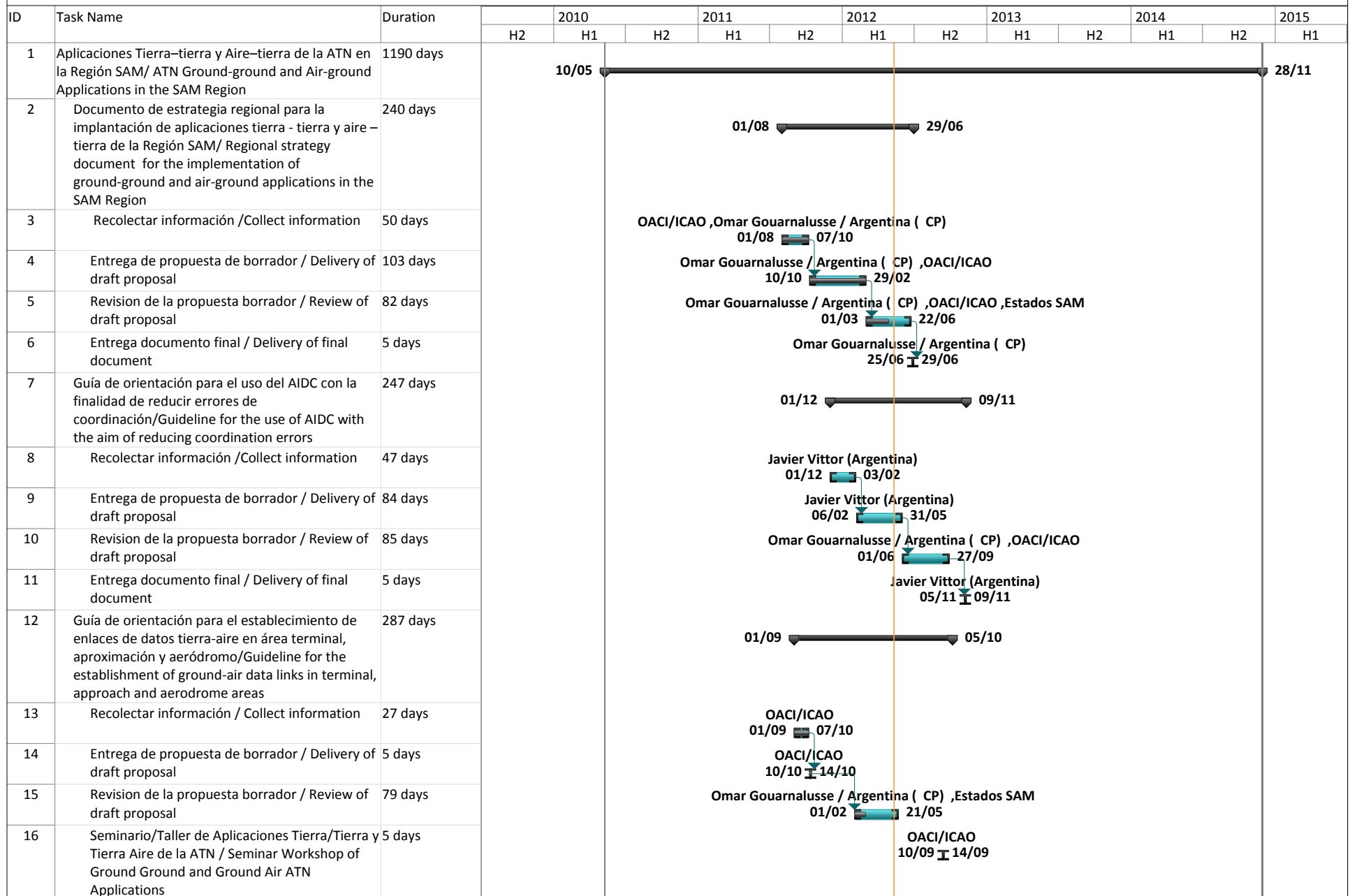
Project Deliverables	Relationship with Performance Based Regional Plan (PFF)	Responsible	Status of Implementation <sup>1</sup>	Delivery Date	Remarks
Operational integration of AIDC service between adjacent ACCs	PFF SAM CNS 01 PFF SAM ATM 06	States / Project Coordinator / Programme Coordinator		November 2014	To date no AIDC interconnection trials have been held between the Ezeiza and Cordoba ACCs. The integration is still not being used operationally Many States of the Region have drafted and signed MoUs to carry out the integration
Monitor the implementation of ATN ground-ground and air-ground applications activities in the SAM Region		ICAO		March 2010- November 2014	
Resources necessary	Designation of experts for the conduct of some of the deliverables				

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APENDICE B / APPENDIX B

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APLICACIONES TIERRA-TIERRA Y AIRE-TIERRA DE LA ATN EN LA REGION SAM /  
ATN GROUND-GROUND AND AIR-GROUND APPLICATIONS IN THE SAM REGION



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