



International Civil Aviation Organization
CAR/SAM Regional Planning Implementation Group (GREPECAS)
CNS/ATM Subgroup
Coordination meeting of the ATN ground-ground and ground-air applications project
(Lima, Peru, 19 to 20 May 2010)

Agenda Item 4: Review of the working programme of the ATN projects established in the CNS/ATM/SG/1

Update working program for the ATN ground-ground and air-ground applications projects

(Presented by the ICAO Secretariat)

SUMMARY

This working paper presents updated information on the work programme of the CAR/SAM ATN architecture and ATN ground-ground and air-ground applications projects presented in the CNS/ATM/SG/1 meeting.

Reference:

- CNS/ATM/SG/1 Meeting Report (Lima, Peru, 15 to 19 March 2010).

1 Introduction

1.1 The CNS /ATM/SG/1 meeting defined the structure and the work programme of the Subgroup. The structure of the CNS/ATM meeting is presented in **Appendix A** of this working paper. The ATN and its application will be analyzed under the ground-ground and air-ground telecommunications infrastructure programme. Under the mentioned programme, the CNS/ATM/SG/1 meeting approved the execution of two projects, *CAR/SAM ATN architecture* and *ATN ground-ground and air-ground applications*. For the above mentioned, the meeting presented the work programme presented in **Appendix B**.

1.2 To this end, the CNS/ATM/SG/1 meeting considered that the project coordinator, together with the ICAO Regional Office in charge of coordinating the associated programme, will review the tasks initially contemplated in the work programme; will define the person responsible for the execution of tasks, once information from States is received regarding the experts that will be part of the project; will define the deliverables expected for each task for a better follow-up of the progress/achievement of each task and taking into consideration that many of the tasks contemplated in the work programme are high-level activities; and will detail the task in a set of specific sub-tasks. To this end, the meeting formulated Decision CNS/ATM/1-9 *Revision of the work programme of CNS/ATM Subgroup projects*.

1.3 The Decision considered that the project coordinator, together with the corresponding programme coordinator, carry out before 30 June 2010, the following activities:

- a) Revision of the tasks of projects work programmes;
- b) Definition of responsible officers for the carrying out of the tasks;
- c) Identification of deliverables expected for each task;
- d) Break down of tasks into sub-tasks; and
- e) Remittance of the information corresponding pertaining to items a), b), c) and d) above to the ICAO NACC and SAM Regional Offices.

2 Analysis

2.1 The *Ground-Ground and Air-Ground Telecommunications Infrastructure* programme, the Coordinators, together with the *CAR/SAM ATN architecture* and *ATN Ground-Ground and Air-Ground Applications* Project Coordinators, made a first revision of the work programmes tasks projects on 19 May 2010. The results of the revision is presented in **Appendix C** of this working paper.

2.2 During the revision, they considered that the following tasks will be moved from the work programme projects and will be analyzed by the Secretariat of the CNS/ATM SG:

- a) Guide the interconnection/integration of communications digital networks;
- b) Technical revision of Regional Telecommunication Network for ATN implementation; and
- c) Update of CAR/SAM Router Plan.

2.3 Also, during the revision they considered that the task *Review, update and complete initial transition plan for the evolutionary development of ATN and applications* under the ground-ground and air-ground project, will be renamed as *ATN implementation plan for the CAR/SAM Region*.

2.4 The Coordinator of the programme, with the respective projects coordinators, considered that the *ATN implementation plan* will be analyzed under the following three tasks:

- a) Study for an IP ATN CAR/SAM backbone network configuration;
- b) Implementation plan for ATN ground-ground applications (AMHS) for CAR/SAM Regions; and
- c) Implementation plan for ATN ground-ground applications (AIDC) for the CAR/SAM Region.

2.5 The study for an *IP ATN CAR/SAM backbone configuration* will be analyzed under the CAR/SAM ATN architecture project, and the *implementation plans for ATN ground-ground applications, AMHS and AIDC for the CAR/SAM Regions* will be analyzed under the ATN ground-ground and air-ground applications project.

2.6 The programme coordinators will consolidate the results of the tasks in paragraph 2.4 in the ATN implementation plan for the CAR/SAM Regions.

2.7 The projects coordinators, considering that the tasks described in Appendix C are high level tasks, have to determine if a set of more precise and specific sub-tasks, and human resources necessary to develop the subtasks, are required. Once this activity is completed, they have to send the results to the programme coordinators before 30 June 2010.

2.8 ICAO, with the aim of making official the nomination of the people elected as project coordinators, as well as of the additional personnel that a State could provide in the development or participation in the activities of the projects, sent a letter by mid-April 2010 requesting the corresponding support. States, Territories and international organizations were to present their replies by 14 May 2010. In this respect, only two States of the CAR/SAM Regions replied, but only one of them presented name of candidates to participate in the projects. A reminder will be sent by the ICAO.

2.9 The CNS/ATM/SG/1 meeting considered that the project coordinator, under coordination with the the programme coordinator, will be responsible for the carrying out of the assigned project. The experts assigned for the carrying out of the activities of a project should follow the guidelines of the project coordinator. Also, they considered that, to harmonize CAR and SAM developments, the carrying out of activities might require the concurrence of experts from both Regions, at a given moment.

2.10 Additionally, CNS/ATM/SG/1 meeting considered that the projects shall use, as a principal form of work between the coordinators and the experts, the internet and phone conference, using meetings only when really necessary.

2.11 If a meeting for the projects under *the Ground-Ground and Air-Ground Telecommunications Infrastructure* Programme is required, same will be held at the SAM ICAO Regional Office. In this respect, a communications was sent by the GREPECAS Secretariat to all the members of the CNS /ATM Subgroup.

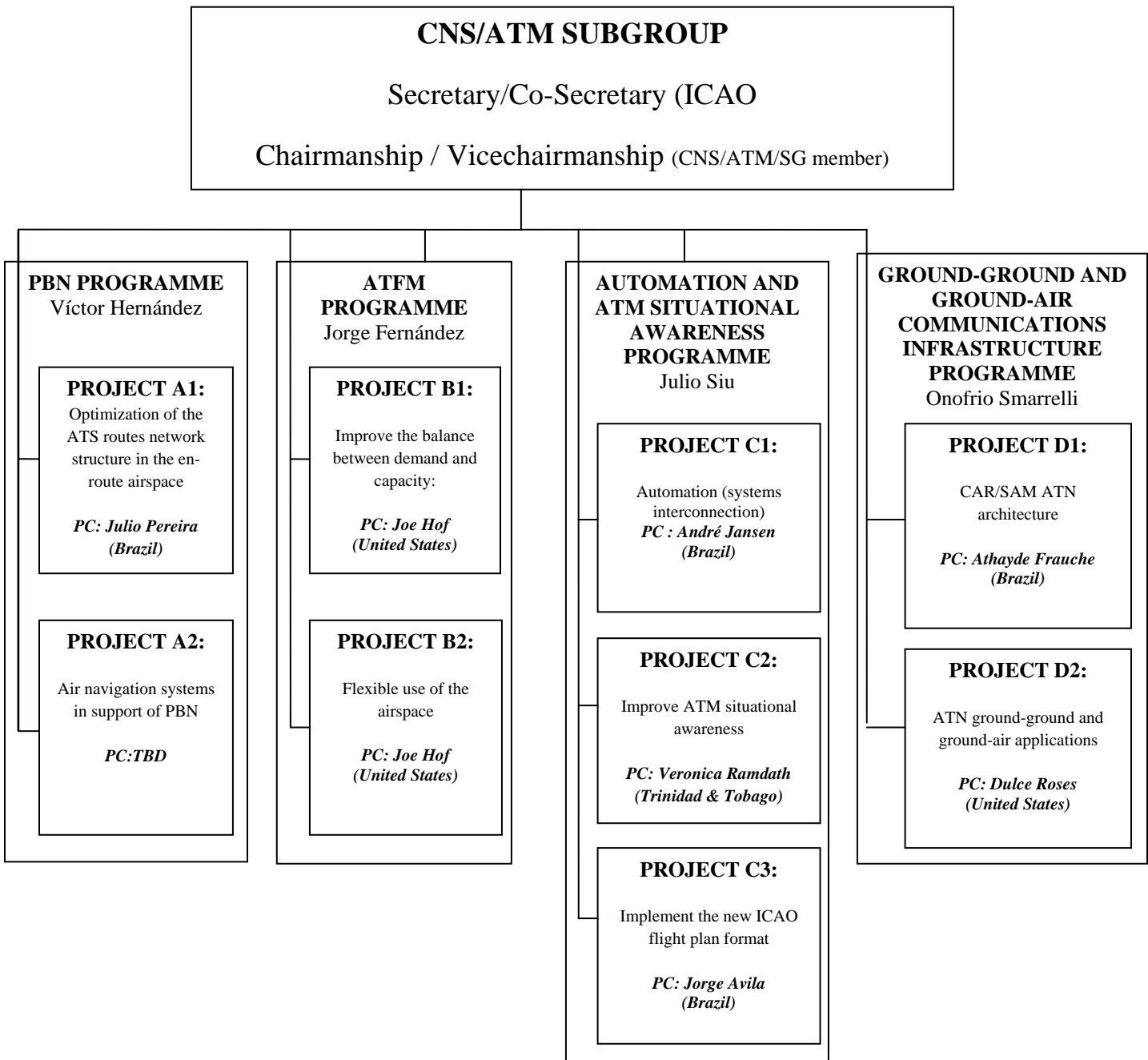
3 **Action required**

3.1 The Meeting is invited to:

- a) note the information presented;
- b) analyze the working programme presented in Appendix C of this working paper;
- c) urge their respective aeronautical administrations to nominate members for the *CAR/SAM ATN architecture* and *ATN ground-ground and air-ground applications* projects; and
- d) propose any other action that the Meeting consider appropriate.

APPENDIX A

STRUCTURE OF THE CNS/ATM/SG



PC: Project Coordinator

PROJECTS WORK PROGRAMMES / PROGRAMAS DE TRABAJO DE LOS PROYECTOS

PROGRAPROGRAMME/PROGRAMA: AUTOMATION AND ATM SITUATIONAL AWARENESS / AUTOMATIZACION Y
PROGRAMME/PROGRAMA: GROUND-GROUND AND AIR-GROUND
 TELECOMMUNICATIONS INFRASTRUCTURE/ INFRAESTUCTURA DE COMUNICACIONES
 TIERRA-TIERRA Y TIERRA-AIRE

PROJECT/PROYECTO: D1. CAR/SAM ATN ARCHITECTURE / ARQUITECTURA DE LA ATN CAR/SAM

**PROJECT COORDINATOR/
 COORDINADOR DEL PROYECTO:** Athayde Frauche

| No. | Tarea/Task | Inicio Fin / Start End | Responsable / Responsible | Estado/Status | Deliverable/Entregable |
|-------|---|---------------------------|------------------------------|---------------|------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| D 1.1 | Guide the interconnection/integration of Communications digital networks Guiar la interconexión/ integración de redes digitales de comunicaciones | 2005/ 2012 | | Valid/Válida | |
| D 1.2 | Technical revision of Regional Telecommunication Network for ATN implementation Revisión técnica de redes regionales de telecomunicaciones para la implantación de la ATN | 2009/2011 | | Valid/Válida | |
| D 1.3 | Trial implementation to determine ATN bandwidth to support ground application Implantación de pruebas para determinar el ancho de banda de la ATN para soportar las aplicaciones terrestre | 2009/2011 | | Valid/Válida | |
| D 1.4 | Study for an IP ATN CAR/SAM backbone network configuration Estudio para la configuración de una red medular IP para las Regiones CAR/SAM | 2009/2011 | | Valid/Válida | |

| No. | Tarea/Task | Inicio Fin / Start End | Responsable / Responsible | Estado/Status | Deliverable/Entregable |
|-------|---|---------------------------|------------------------------|---------------|------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| D 1.5 | Update of CAR/SAM Router Plan Actualización del plan regional CAR/SAM de encaminadores | 2011 | | Valid/Válida | |
| D 1.6 | Analyse proposals for data Communications infrastructure in support of ATFM implementation This activity supports the activity <i>Support PBN and ATFM implementation, optimization of ATM routes and guidance for ATM service automation</i> covered in the surveillance area. Analizar las propuestas de infraestructura de comunicaciones de datos en apoyo de la implantación de la ATFM Esta actividad apoya la actividad <i>Soporte a la implantación del PBN el ATFM, optimización de las rutas ATM y guías para el servicio de automatización ATM</i> cubierta en el área de vigilancia. | 2009/2011 | | Valid/Válida | |
| D 1.7 | Elaborate a CAR/SAM plan for the establishment of the communications system needed for the migration towards aeronautical MET messages exchange (METAR/SPECI and TAF) in the new format to be defined Elaborar un plan CAR/SAM para establecer el sistema de comunicaciones necesario para la migración hacia el intercambio de mensajes aeronáuticos MET (METAR/SPECI y TAF) en el nuevo formato a definirse | TBD | | Valid/Válida | |

PROGRAMME/PROGRAMA:

GROUND-GROUND AND AIR-GROUND TELECOMMUNICATIONS INFRASTRUCTURE/
INFRAESTRUCTURA DE COMUNICACIONES TIERRA-TIERRA Y TIERRA-AIRE

PROJECT/PROYECTO:

D2. ATN GROUND-GROUND AND AIR-GROUND APPLICATIONS / APLICACIONES TIERRA-TIERRA Y AIRE-TIERRA DEL ATN

PROJECT COORDINATOR/

COORDINADOR DEL PROYECTO:

Dulce Roses

| No. | Tarea/Task | Inicio Fin / Start End | Responsable / Responsible | Estado/Status | Entregable/ Deliverable |
|-------|---|---------------------------|------------------------------|---------------|----------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| D 2.1 | Review, update and complete initial transition plan for the evolutionary development of ATN and applications Revisar, actualizar y completar el plan de transición inicial para el desarrollo evolutivo de la ATN y sus aplicaciones | 2003/2010 | | Valid/Válida | |
| D 2.2 | Guide de development of ATN addressing plan according to ICAO technical principles and guidelines Orientar el desarrollo del plan de direccionamiento ATN, de conformidad con los principios y disposiciones técnicas de la OACI | 2008/2010 | | Valid/Válida | |
| D 2.3 | Implementation Plan for ATN Ground-ground applications (AMHS) Plan de implantación de las Aplicaciones tierra-tierra del ATN (AMHS) | 2010 | | Valid/Válida | |
| D 2.4 | Implementation Plan for ATN Ground-ground applications (AIDC) Plan de implantación de las Aplicaciones tierra-tierra del ATN (AIDC) | 2010 | | Valid/Válida | |

| No. | Tarea/Task | Inicio Fin / Start End | Responsable / Responsible | Estado/Status | Entregable/ Deliverable |
|-------|---|---------------------------|------------------------------|---------------|----------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| D 2.5 | Coordination and trials for ATN ground applications implementation Coordinación y prueba para aspecto de implantación de aplicaciones tierra tierra de la ATN | 2008/ 2011 | | Valid/Válida | |
| D 2.6 | Develop a VDL implementation Plan and its application Desarrollar un plan de implantación VDL y su aplicación | 2011 | | Valid/Válida | |
| D 2.7 | Monitor VDL implementation trials and its applications Monitorear implementación de ensayos de VDL y sus aplicaciones | 2008/2011 | | Valid/Válida | |
| D 2.8 | Initial transition plan of ground/air ATN application Plan de transición inicial de las aplicaciones tierra aire de la ATN | 2008/2012 | | Valid/Válida | |
| D 2.9 | Monitor implementation of technology available to facilitate ground and onboard applications Monitorear la implantación de tecnologías disponibles para facilitar aplicaciones en tierra y a bordo | 2008/2012 | | Valid/Válida | |

PROJECT WORK PROGRAMME / PROGRAMA DE TRABAJO DEL PROYECTO

PROGRAMME/PROGRAMA: GROUND-GROUND AND AIR-GROUND TELECOMMUNICATIONS INFRASTRUCTURE/
 INFRAESTRUCTURA DE COMUNICACIONES TIERRA-TIERRA Y TIERRA-AIRE
PROJECT/PROYECTO: D1. CAR/SAM ATN ARCHITECTURE / ARQUITECTURA DE LA ATN CAR/SAM
**PROJECT COORDINATOR/
 COORDINADOR DEL PROYECTO:** Athayde Frauche

| No. | Tarea/Task | Inicio Fin / Start End | Responsible / Responsible | Estado/Status | Deliverable/Entregable |
|-------|---|---------------------------|------------------------------|---------------|--|
| 1 | 2 | 3 | 4 | 5 | 6 |
| D 1.1 | Study for an IP ATN CAR/SAM backbone network configuration Estudio para la configuración de una red medular IP para las Regiones CAR/SAM | 2009/2011 | | Valid/Válida | IP CAR/SAM Backbone network |
| D 1.2 | Trial implementation to determine ATN bandwidth to support ground application Implantación de pruebas para determinar el ancho de banda de la ATN para soportar las aplicaciones terrestre | 2009/2011 | | Valid/Válida | ATN Bandwith for ATN |
| D 1.3 | Analyse proposals for data Communications infrastructure in support of ATFM implementation This activity supports the activity <i>Support PBN and ATFM implementation, optimization of ATM routes and guidance for ATM service automation</i> covered in the surveillance area. Analizar las propuestas de infraestructura de comunicaciones de datos en apoyo de la implantación de la ATFM Esta actividad apoya la actividad <i>Soporte a la implantación del PBN el ATFM, optimización de las rutas ATM y guías para el servicio de automatización ATM</i> cubierta en el área de vigilancia. | 2009/2011 | | Valid/Válida | Data Communications infrastructure in support of ATFM implementation |

| No. | Tarea/Task | Inicio Fin / Start End | Responsable / Responsible | Estado/Status | Deliverable/Entregable |
|-------|---|---------------------------|------------------------------|---------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| D 1.4 | <p>Elaborate a CAR/SAM plan for the establishment of the communications system needed for the migration towards aeronautical MET messages exchange (METAR/SPECI and TAF) in the new format to be defined</p> <p>Elaborar un plan CAR/SAM para establecer el sistema de comunicaciones necesario para la migración hacia el intercambio de mensajes aeronáuticos MET (METAR/SPECI y TAF) en el nuevo formato a definirse</p> | TBD | | Valid/Válida | CAR/SAM Plan for communication system to support the new OPMET format message |

PROGRAMME/PROGRAMA:

GROUND-GROUND AND AIR-GROUND TELECOMMUNICATIONS INFRASTRUCTURE/
INFRAESTRUCTURA DE COMUNICACIONES TIERRA-TIERRA Y TIERRA-AIRE

PROJECT/PROYECTO:

D2. ATN GROUND-GROUND AND AIR-GROUND APPLICATIONS / APLICACIONES TIERRA-TIERRA Y AIRE-TIERRA DEL ATN

PROJECT COORDINATOR/

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| No. | Tarea/Task | Inicio Fin / Start End | Responsable / Responsible | Estado/Status | Entregable/ Deliverable |
|-------|---|---------------------------|------------------------------|---------------|--|
| 1 | 2 | 3 | 4 | 5 | 6 |
| D 2.1 | Implementation Plan for ATN Ground-ground applications (AMHS) for CAR/SAM Regions Plan de implantación de las Aplicaciones tierra-tierra del ATN (AMHS) en la Regiones CAR/SAM | 2010 | | Valid/Válida | AMHS implementation plan for CAR/SAM Region Plan de implantación del AMHS en las Regiones CAR/SAM |
| D 2.2 | Implementation Plan for ATN Ground-ground applications (AIDC) for the CAR/SAM Region Plan de implantación de las Aplicaciones tierra-tierra del ATN (AIDC) para las Regiones CAR/SAM | 2010 | | Valid/Válida | AIDC implementation plan for CAR/SAM Region Plan de implantación del AIDC en las Regiones CAR/SAM |
| D 2.3 | Guide de development of ATN addressing plan according to ICAO technical principles and guidelines | 2008/2010 | | Valid/Válida | CAR/SAM AMHS addressing scheme |
| D 2.4 | Coordination and trials for ATN ground applications implementation Coordinación y prueba para aspecto de implantación de aplicaciones tierra tierra de la ATN | 2008/ 2011 | | Valid/Válida | Trial for ATN ground ATN application implementation |

| No. | Tarea/Task | Inicio Fin / Start End | Responsable / Responsible | Estado/Status | Entregable/ Deliverable |
|-------|--|---------------------------|------------------------------|---------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| D 2.5 | Develop a VDL implementation Plan and its application Desarrollar un plan de implantación VDL y su aplicación | 2011 | | Valid/Válida | CAR/SAM VDL implementation plan Plan de implantación VDL en las Regiones CAR/SAM |
| D 2.6 | Monitor VDL implementation trials and its applications Monitorear iimplementación de ensayos de VDL y sus aplicaciones | 2008/2011 | | Valid/Válida | Monitor VDL implementation trials and its application Monitorear plan de ensayos VDL y sus aplicaciones |
| D 2.7 | Initial transition plan of ground/air ATN application Plan de transición inicial de las aplicaciones tierra aire de la ATN | 2008/2012 | | Valid/Válida | Transition plan for Ground Air ATN application Plan de transición de las aplicaciones tierra aire de la ATN |
| D 2.8 | Monitor implementation of technology available to facilitate ground and onboard applications for ATN ground air application Monitorear la implantación de tecnologías disponibles para facilitar aplicaciones en tierra y a bordo para las aplicaciones tierra aire de la ATN | 2008/2012 | | Valid/Válida | Monitor available implementation technology for ATN ground air application Monitorear la implantación de tecnología disponible para las aplicaciones tierra aire de la ATN |