



**Agenda Item 3: Review of GREPECAS Programmes and Projects**

**3.3 Projects of the Automation and Situational Awareness Programme**

**FOLLOW-UP OF ACTIVITIES OF THE AUTOMATION AND SITUATIONAL AWARENESS PROJECTS**

(Presented by the Secretariat)

SUMMARY	
This working paper presents the status of implementation of the activities of projects under Programme C: <i>ATM automation and situational Awareness</i> and their deliverables.	
<b>Reference:</b>	
<ul style="list-style-type: none"><li>Report of the Sixteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/16), Punta Cana, Dominican Republic, 28 March - 1 April 2011</li></ul>	
<b>ICAO strategic objectives</b>	<i>This working paper is related to strategic objectives A and C.</i>

**1. Background**

1.1 Through *Decision 16/45 - New GREPECAS organisation*, a new organisation was adopted for GREPECAS for the implementation of regional performance-based plans in the CAR/SAM Regions, in compliance with the Global Air Navigation Plan and the Global ATM Operational Concept. Likewise, through *Decision 16/47 – Transformation of GREPECAS Subgroups* this structure was implemented with the establishment of programmes and projects for the AERMET, AGA/AOP, AIM, and CNS/ATM Subgroups.

1.2 In this sense, with the new structure, the Programmes and Projects Review Committee (PPRC) was created through *Decision 16/48 – Terms of reference, work programme and composition of the GREPECAS Programmes and Projects Review Committee* to review and approve the planning, development and implementation of the programmes and projects so that they are aligned with GREPECAS terms of reference, and ICAO strategic objectives and global plan.

## 2. Discussion

2.1 In the specific case of the CNS/ATM Subgroup, at the time Decision 16/47 was formulated, four CAR/SAM programmes (PBN, ATFM, Automation and ATM situational awareness, and Ground-ground/air-ground communications infrastructure) containing nine projects already existed. In order to increase effectiveness (reduced time to approval, improved internal coordination between the various bodies, and cost reduction), GREPECAS/16 considered that the aforementioned projects and programmes will be implemented separately for the CAR and SAM Regions CAR y SAM, where CAR programmes and SAM programmes would be coordinated by the officers of the NACC and SAM Regional Offices, respectively, and where CAR projects would be coordinated by CAR experts and SAM projects would be coordinated by SAM experts.

2.2 In this sense, for Programme C, and after reviewing CAR and SAM projects, it was confirmed that projects would continue to be developed under the following denomination:

### **CAR Region**

- C1: INTEROPERABILITY OF AUTOMATED SYSTEMS IN THE CAR REGION
- C2: IMPROVED ATM SITUATIONAL AWARENESS IN THE CAR REGION
- C3: IMPLEMENTATION OF THE NEW ICAO FLIGHT PLAN FORMAT

### **SAM Region**

- C1: AUTOMATION
- C2: ATM SITUATIONAL AWARENESS
- C3: IMPLEMENTATION OF THE NEW FLIGHT PLAN MODEL

2.3 **Appendices A and B** describe each of the projects C1, C2, and C3 for the CAR and SAM Regions, respectively. The description includes the rationale for each project, the deliverables, activities, responsible parties, and progress made to date, including the respective work timetable in GANTT format.

2.4 Project activities have been coordinated amongst project members, the project coordinator, and the programme coordinator, mainly through teleconferences (“Go-to-Meeting” application) and meetings to be held from time to time in accordance with work programme activities, or face-to-face meetings scheduled at the Regional Offices, such as the NACC work group meetings.

2.5 In the SAM Region, project activities are being monitored and coordinated through web teleconferences and through the meetings of the SAM Implementation Group (SAM/IG). Since the reorganisation of GREPECAS started, two meetings have been held (SAM/IG/7, Lima, Peru, 23-27 May 2011 and SAM/IG/8, Lima, Peru, 10-14 October 2011).

2.6 Project achievements include the following:

- a) CAR Project C1:
  - Collection of Memorandum of Understanding (Mou) samples for the consolidation of an inter-regional MoU model; and
  - Draft guidelines for data sharing and ATC system interoperation.

- b) CAR Project C2:
  - Identification of progress in the Region in terms of electronic ground and in-flight alerts to improve situational awareness, ATFM development programmes, as well as surveillance system improvements like the efforts made in the region to implement ADS-B, and future production of the respective guidance material for each deliverable identified in project C2; and
  - In the last few months, coordination amongst project member has become more dynamic through the “Go-to-Meeting” meeting.
- c) CAR Project C3:
  - Identification and interconnection of systems involved in the NAM/CAR Region NAM/CAR;
  - Sample AIC in Spanish and English;
  - Proposal of system testing between States;
  - Proposal of contingency to be applied by the States; and
  - Proposal of transition from the current to the new flight plan format.
  - Training of experts in the implementation of the new flight plan format.
- d) SAM Project C1:
  - Drafting of a document on system and sub-system requirements for ATC (SSS) system automation;
  - Regional plan for the interconnection of automated systems;
  - Model MoU for the interconnection of automated systems;
  - Signing of five MoUs; and
  - One interconnection (Argentina-Uruguay) implemented and two under implementation (Brazil-Venezuela and Argentina-Chile).
- e) SAM Project C3:
  - Model national action plan for the implementation of the amendment;
  - Model AIC;
  - Regional strategy for the implementation of the amendment;
  - Safety assessment; and
  - Identification of automated systems affected by the implementation of the amendment.

2.7 Difficulties encountered for the implementation of project activities include:

2.7.1 CAR Region: The exchange and revision of information by the experts initially designated to work in the projects via teleconference has not been effective, either because of their absence or non-compliance with the agreed dates. Nevertheless, this has improved by holding face-to-face group meetings.

2.7.2 SAM Region: The lack of experts for the execution of Project C2 deliverables and of an official coordinator for Project C3 given the fact that the project coordinator initially nominated was not going to be able to perform such function in 2012. Anyway, the SAM/IG New flight plan format implementation group is doing the follow-up and implementing these activities under the supervision of the programme coordinator.

3. **Suggested action**

3.1 The Meeting is invited to:

- a) take into account the information contained in this working paper;
- b) review and approve the project description and status of implementation shown in each of the appendices;
- c) recommend actions to improve or expand as necessary the deliverables of each project; and
- d) propose improvements to overcome the difficulties encountered and described in paragraph 2.7.

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## APPENDIX A1

## PROJECT ON THE INTEROPERABILITY OF ATS AUTOMATED SYSTEMS IN THE CAR REGION

CAR Region	PROJECT DESCRIPTION (DP)	DP N° C1	
Programme	Title of the Project	Start	End
Interoperation of automated systems  (ICAO programme coordinator : Julio Siu)	Interoperation of automated systems in the CAR Region  Project coordinator: Carlos Jimenez (Cuba)  Experts contributing to the project: Fidel Ara (Cuba) Julio Cesar Mejia (Dominican Republic) Dulce Roses (United States) Roger Alberto Pérez (COCESNA) Manny Góngora (IATA)	2010	2014
<b>Objective:</b>	Support maximum use of existing automation capabilities and interoperation, and higher degree of automation in the CAR Region, based on regional performance objectives of the NAM/CAR Regional performance-based implementation plan (NAM/CAR RPBANIP)		
<b>Scope</b>	The project contemplates the assessment and identification of the main levels of automation, the production of guides for the use of existing capabilities, and proposals of improvement to automation levels to enhance operations and safety. The intended deliverables are: <ul style="list-style-type: none"> <li>• Inter-regional MoU model for automation between States</li> <li>• Guidelines and considerations for automation agreements</li> <li>• Proposals and guidance for improving the operation and performance of the flight plan data processing system, tools for electronic transmission and automatic exchange of ATS messages</li> <li>• Proposals and guidance for using additional/advanced automation support tools to increase aeronautical information sharing</li> <li>• Proposal to update GREPECAS guidelines on ATM system automation</li> </ul>		
<b>Metrics</b>	<ul style="list-style-type: none"> <li>• Number of States/ANSPs participating in regional automation tests</li> <li>• Number of States/ANSPs implementing ATC automation functionalities between systems</li> <li>• Proposals and guidance material completed</li> </ul>		

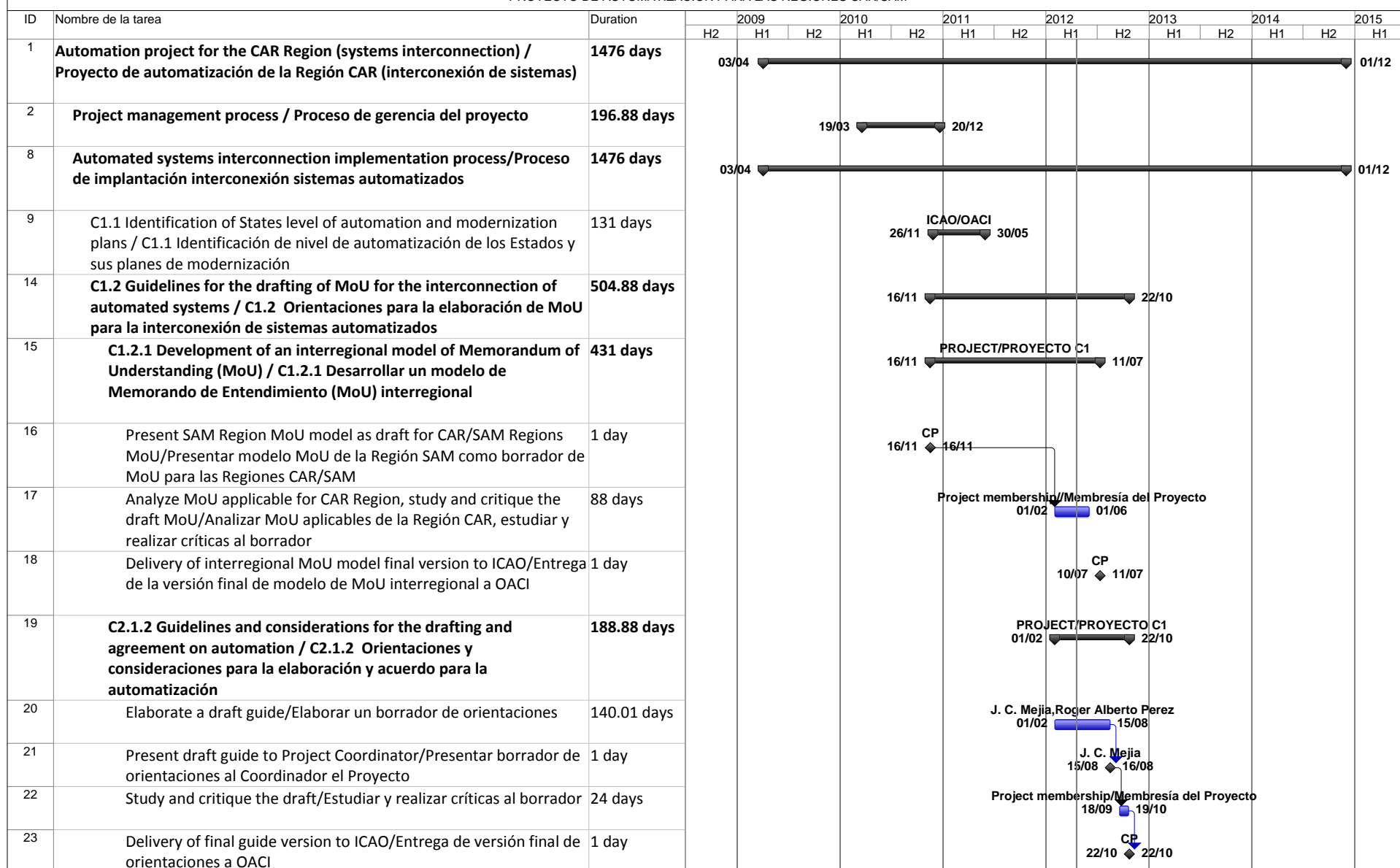
<b>Implementation strategy:</b>	<ul style="list-style-type: none"> <li>Project activities will be coordinated amongst project members, the project coordinator, and the programme coordinator, mainly through teleconferences (“Go-To-Meeting” application) and meetings to be held from time to time in accordance with work programme activities. The project coordinator will coordinate as necessary with the programme coordinator the requirements of other projects and information from NAM/CAR implementation working groups. Additional experts will be included based on tasks and specialised work to be conducted.</li> <li>Project deliverables will be sent to the programme coordinator sub submission to GREPECAS.</li> </ul>
<b>Related projects</b>	The project is related to Programme C and D projects.

<b>Project Deliverables</b>	<b>Relationship with the regional performance-based plan (PFF)</b>	<b>Responsible Party</b>	<b>Status of Implementation<sup>1</sup></b>	<b>Date of Delivery</b>	<b>Comments</b>
Level of automation existing in the CAR Region	RPO 7 and 9 NAM/CAR RPBANIP	ICAO		Completed	
Sample of inter-regional MoU for automation between States	RPO 7 and 9 NAM/CAR RPBANIP	Carlos Jiménez, Cuba		Oct 2012	
Guidance material and considerations for the drafting of automation agreements	RPO 7 and 9 NAM/CAR RPBANIP	Carlos Jiménez, Cuba		Oct 2012	

<sup>1</sup> *Grey Task not started yet*  
*Green Activity being implemented as scheduled*  
*Yellow Activity started with some delay, but expected to be implemented on time*  
*Red Activity not implemented on time; mitigation measures are required*

Project Deliverables	Relationship with the regional performance-based plan (PFF)	Responsible Party	Status of Implementation <sup>1</sup>	Date of Delivery	Comments
Proposals or guidelines for improving the operation and performance of the flight plan data processing system, tools for electronic transmission and automatic exchange of ATS messages	RPO 7 NAM/CAR RPBANIP	Roger Alberto Perez COCESNA		August/2013	The implementation of the LAM CPL is suggested as a first step, as in the case of United States with Cuba and Mexico. Promote D-ATIS and other data link applications. Implement ATFM message exchange, implementation of MET/AIS terminals, and other automation considerations providing operational benefits.
Proposals and guidance on the use and benefits of additional/advanced automation support tools to increase aeronautical information sharing	RPO 7 NAM/CAR RPBANIP	Dulce, United States		December/2013	In order to make further progress, it is necessary to build upon the operational benefits attained by the FAA with respect to ATFM implementation, and the analysis of benefits and issues of automation implementation.
Monitor the implementation of ATM automation and surveillance data exchange – Progress report	RPO 7 NAM/CAR RPBANIP	Project members		March/2014	Some radar data exchange already agreed upon should be completed this year.
Resources needed	<ul style="list-style-type: none"> <li>• Designation of experts for the implementation of deliverables.</li> <li>• Implementation of facilities for the interconnection of automated systems in accordance with the dates established in the respective MoUs.</li> </ul>				

CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP / GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION (GREPECAS)  
CNS/ATM/SG PROJECT/PROYECTO C1  
AUTOMATION PROJECT FOR THE CAR/SAM REGIONS  
PROYECTO DE AUTOMATIZACION PARA LAS REGIONES CAR/SAM





CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP / GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION (GREPECAS)  
CNS/ATM/SG PROJECT/PROYECTO C1  
AUTOMATION PROJECT FOR THE CAR/SAM REGIONS  
PROYECTO DE AUTOMATIZACION PARA LAS REGIONES CAR/SAM

ID	Nombre de la tarea	Duration	2009		2010		2011		2012		2013		2014		2015	
			H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1
24	<b>C1.3 Monitor flight plan data process implementation, electronic transmission tools &amp; automatic ATS message exchange / C1.3 Monitorear implantación sistema proceso datos plan vuelo, herramientas transmisión electrónica e intercambio automático msgs ATS</b>	<b>373.88 days</b>									01/03	06/08				
25	<b>C1.3 Proposals/flight plan data process implementation, electronic transmission tools &amp; automatic ATS message exchange / C1.3 Monitorear implantación sistema proceso datos plan vuelo, herramientas transmisión electrónica e intercambio automático msgs ATS</b>	<b>373.88 days</b>									01/03	06/08				
26	Identify various group States technological levels, including interconnection means/Identificar los diferentes niveles tecnológicos de grupos de Estados, incluyendo medios de interconexion	110.5 days									01/03	02/08				
27	Presentation of draft to Project Coordinator/Presentar al Coordinador de Proyecto el borrador	1 day									02/08	03/08				
28	Review of draft/Criticar el borrador	23 days									23/10	22/11				
29	Consolidation of final document at technological levels/Consolidar un documento final con los niveles tecnologicos	43 days									23/11	22/01				
30	Elaborate draft document with guidelines on improvement for each State group level/Elaborar borrador de documento con orientaciones de mejora para cada grupo de niveles de Estados	221 days									25/05	29/03				
31	Present the Project Coordinator with guidelines draft/Presentar al Coordinador de Proyecto el borrador de orientaciones	1 day									01/04	01/04				
32	Review of guidelines draft/Criticar el borrador de orientaciones	24 days									02/04	03/05				
33	Elaboration of final document/Elaborar el documento final	65 days									06/05	02/08				
34	Delivery of final document to Project Coordinator/Entregar el documento final al Coordinador de Proyecto	1 day									05/08	05/08				
35	Delivery of final document to ICAO/Entrega del documento final a OACI	1 day									06/08	06/08				

PM = Programme Manager/Gerente Programa  
PC = Project Coordinator/Coordinador Proyecto

CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP / GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION (GREPECAS)  
 CNS/ATM/SG PROJECT/PROYECTO C1  
 AUTOMATION PROJECT FOR THE CAR/SAM REGIONS  
 PROYECTO DE AUTOMATIZACION PARA LAS REGIONES CAR/SAM

ID	Nombre de la tarea	Duration	2009		2010		2011		2012		2013		2014		2015	
			H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1
36	<b>C1.4 Monitor ATM automation implementaion and exchange of surveillance data/C1.4 Monitorear la implantación de automatización ATM y el intercambio de datos de vigilancia</b>	<b>900 days</b>														
37	<b>C1.5 Monitor implementation of additional/advanced automation support tools/C1.5 Monitorear implantación herramientas de apoyo adicionales/avanzadas de automatización</b>	<b>1236 days</b>														
38	C1.5.1 Proposals/guidelines use and benefit additional/advanced automation support tools increase aero info sharing/C1.5.1 Propuesta/orientacion uso y beneficios herramientas apoyo adicional/avanzada automatización incremento compartición info aeronáutica	1236 days														
39	<b>C1.6 Monitor the implementation development/C1.6 Monitorear el desarrollo de la implementación</b>	<b>1226 days</b>														



## APPENDIX A2

## PROJECT ON THE IMPROVEMENT OF ATM SITUATIONAL AWARENESS IN THE CAR REGION

CAR Region	PROJECT DESCRIPTION (DP)	DP N° C2	
<i>Programme</i>	Title of the Project	Start	End
AUTOMATION AND ATM SITUATIONAL AWARENESS (ICAO programme coordinator :Julio Siu)	IMPROVED ATM SITUATIONAL AWARENESS IN THE CAR REGION  Project coordinator: Alejandro Romero (COCESNA)  Experts contributing to the project: Fidel Ara Cruz, Carlos Jimenez (Cuba), Julio Cesar Mejia (Dominican Republic), Michael Polchert (United States), Susan E. Pfingstler (IATA), Adriana Mattos (SITA)	October 2011	November 2013
<b>Objective</b>	Support the implementation of situational awareness improvements at ATS units in the CAR Region based on the regional performance objective of the performance-based implementation plan for the NAM/CAR Regions (RPBANIP NAM/CAR).		
<b>Scope</b>	<p>The project contemplates the development of studies and guidelines for automation and operational use of capabilities to attain these situational awareness improvements, supporting the implementation of different applications such as common display of traffic, common display of meteorological conditions, and communications in general, through the following deliverables:</p> <ul style="list-style-type: none"> <li>Guidelines on improvements to electronic ground and airborne alerts, as applicable, for conflict prediction, ground proximity, MSAW, DAIW, surface movement surveillance systems.</li> <li>Guidelines for operational implementation of ADS-B and data exchange (initial steps for operational implementation of ADS B), ADS-B, ADS-C and/or MLAT surveillance systems in selected airspaces.</li> <li>Guidance on the use of AIDC to reduce coordination errors, and identification of improvements to situational awareness in support of PBN and ATFM implementation, contributing to decision-making and the respective warning systems</li> <li>Guidance in support of the implementation of advanced automation support tools for sharing of aeronautical information.</li> </ul>		
<b>Metrics</b>	<ul style="list-style-type: none"> <li>Number of States/ANSPs reporting a reduction of incidents as a result of the application of improvements in electronic ground and air alerts</li> <li>Number of States/ANSPs conducting ADS-B data or multilateration trials using the guides developed</li> <li>Percentage of States/ANPS participating in ATFM that report improved management as a result of the proposed guidance</li> </ul>		

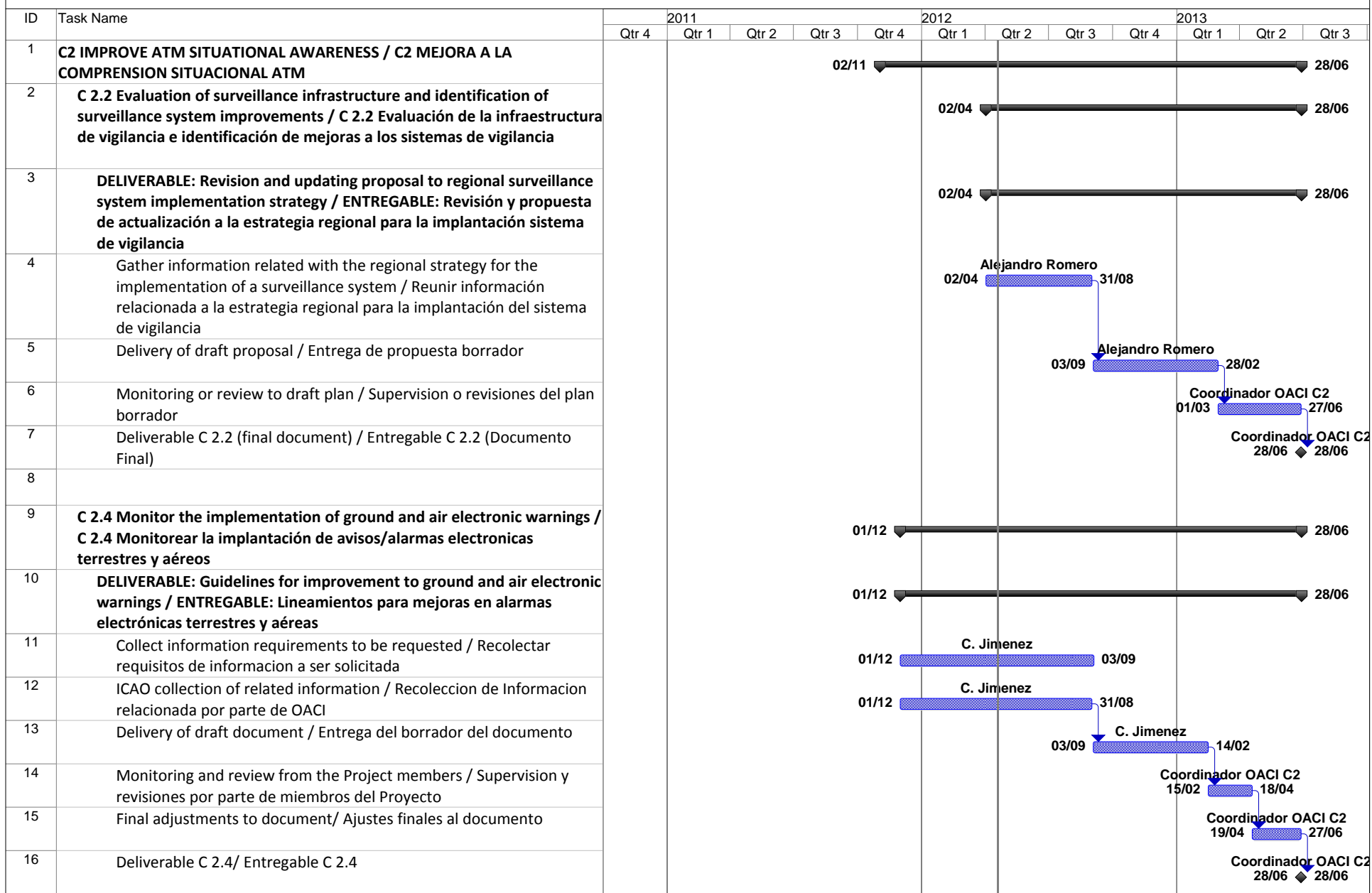
<b>Strategy</b>	<ul style="list-style-type: none"> <li>Project activities were coordinated amongst project members, the project coordinator, and the programme coordinator, mainly through teleconferences and meetings held at events scheduled in the work programme.</li> <li>The project coordinator will coordinate with the programme coordinator the inclusion of requirements from other projects and information from the NAM/CAR implementation working groups. Additional experts were incorporated based on specialised tasks carried out.</li> <li>Project deliverables will be submitted to the programme coordinator for presentation to GREPECAS.</li> </ul>
<b>Rationale</b>	An improved situational awareness facilitates coordination, improves efficiency and safety, and ensures that the various members of the ATM community have the same information for collaborative decision-making.
<b>Related projects</b>	This project is related to the projects of Programmes A (PBN), B (ATFM), C (Automation/ Situational Awareness), and D (ATN ground-ground and air-ground applications)

<b>Project Deliverables</b>	<b>Relationship with the regional performance-based plan (PFF)</b>	<b>Responsible Party</b>	<b>Status of Implementation<sup>1</sup></b>	<b>Date of Delivery</b>	<b>Comments</b>
Review of the Regional Implementation Oversight Strategy for systems in support of situational awareness improvement	RPOs 4 and 9, NAM/CAR RPBANIP	Alejandro		June 2013	To be reviewed in accordance with ASBU methodology.  The expert for this task has been proposed.
Guidelines for improving electronic ground and airborne alerts	RPOs 4 and 9, NAM/CAR RPBANIP	Carlos Miguel Jimenez CUBA		June 2013	The expert for this task has been proposed. Information will be provided by April 2012 about electronic alerts available in the CAR Region
Guidelines on the operational implementation of ADS-B and data exchange	RPOs 4 and 9, NAM/CAR RPBANIP	Adriana Mattos SITA		October 2012	The expert for this task has been proposed.

<sup>1</sup> \*Grey Task not started yet  
Green Activity being implemented as scheduled  
Yellow Activity started with some delay, but will be implemented on time  
Red Activity not implemented on time; mitigation measures are required

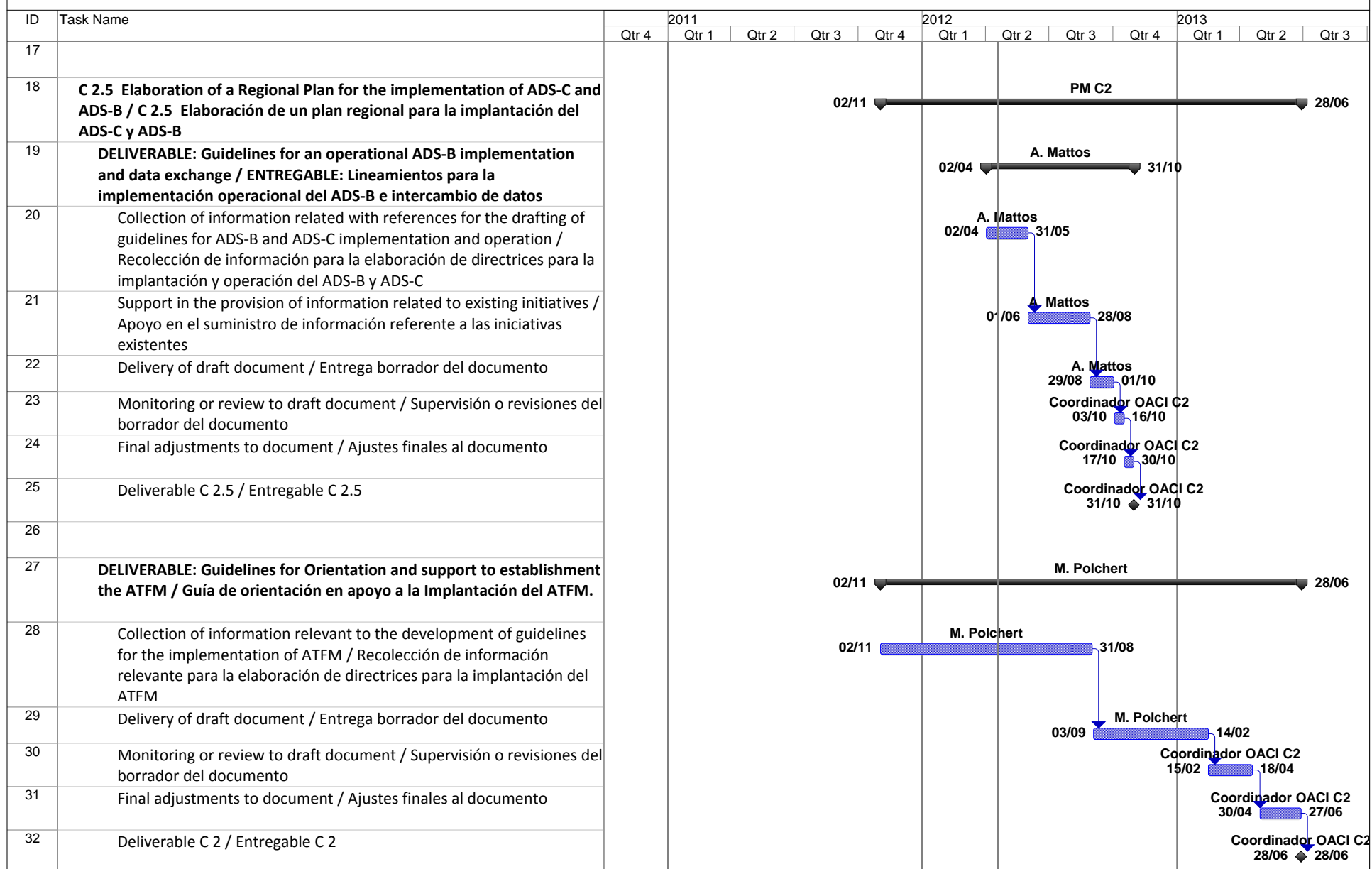
Project Deliverables	Relationship with the regional performance-based plan (PFF)	Responsible Party	Status of Implementation <sup>1</sup>	Date of Delivery	Comments
Guidance in support of ATFM implementation	RPOs 4 and 9, NAM/CAR RPBANIP	Michael Polchert USA		June 2013	The expert for this task has been proposed.
Guidance on the use of AIDC to reduce coordination errors	RPOs 4 and 9, NAM/CAR RPBANIP	Julio Cesar Mejia RDO		November 2012	The expert for this task has been proposed. Data exchange experience obtained between Mexico and United States will be key to support activities.
Guidance on the preparation of SIGMETs in graphic format	RPOs 4, 9 y 12 NAM/CAR RPBANIP	Alejandro Romero COCESNA		November 2013	The expert for this task has been proposed.
<b>Resources needed</b>	Designation of experts for the implementation of some deliverables and to support some working groups (WGs)				

**CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP / GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION (GREPECAS)**  
**PROJECT/PROYECTO C2**  
**IMPROVE ATM SITUATIONAL AWARENESS / MEJORA A LA COMPRENSION SITUACIONAL ATM**



PC = Project Coordinator / Coordinador Proyecto  
 PM = Project Members / Miembros Proyecto  
 S/T = States/Territories - Estados/Territorios

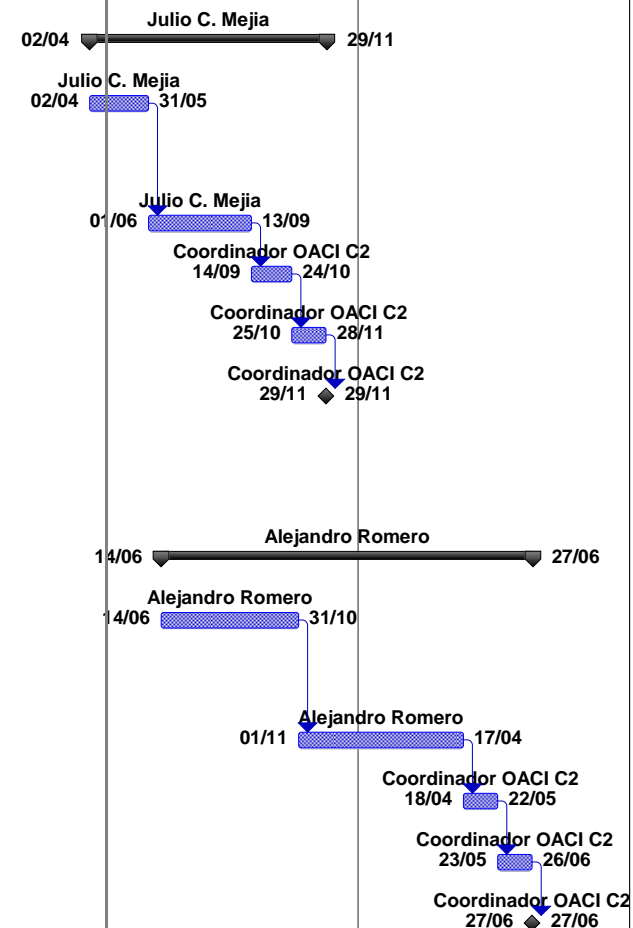
**CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP / GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION (GREPECAS)**  
**PROJECT/PROYECTO C2**  
**IMPROVE ATM SITUATIONAL AWARENESS / MEJORA A LA COMPRENSION SITUACIONAL ATM**



PC = Project Coordinator / Coordinador Proyecto  
PM = Project Members / Miembros Proyecto  
S/T = States/Territories - Estados/Territorios

**CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP / GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION (GREPECAS)**  
**PROJECT/PROYECTO C2**  
**IMPROVE ATM SITUATIONAL AWARENESS / MEJORA A LA COMPRENSION SITUACIONAL ATM**

ID	Task Name	2011					2012				2013		
		Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
33													
34	<b>Guide for the use of AIDC in order to reduce errors / Guía de orientación para el uso del AIDC con la finalidad de reducir errores</b>												
35	Collection of information relevant to the development of guidelines for the use of AIDC messaging standards / Recolección de información relevante para la elaboración de directrices para el uso de la normativa de mensajería AIDC												
36	Delivery of draft document / Entrega borrador del documento												
37	Monitoring or review to draft document / Supervisión o revisiones del borrador del documento												
38	Final adjustments to document / Ajustes finales al documento												
39	Deliverable C 2 / Entregable C 2												
40													
41													
42	<b>Guidelines for developing SIGMET in graphical format. / Guía de orientación para elaborar SIGMET en formato gráfico.</b>												
43	Collection of relevant information to develop guidelines to implement the SIGMET in Graphical Form / Recolección de información relevante para elaborar las directrices para implementar el SIGMET Grafico												
44	Delivery of draft document / Entrega borrador del documento												
45	Monitoring or review to draft document / Supervisión o revisiones del borrador del documento												
46	Final adjustments to document / Ajustes finales al documento												
47	Deliverable C 2 / Entregable C 2												





## APPENDIX A3

## PROJECT ON THE IMPLEMENTATION OF THE NEW ICAO FLIGHT PLAN FORMAT

CAR Region	PROJECT DESCRIPTION (DP)	DP N° C3	
<i>Programme</i>	Title of the Project	Start	End
ATM AUTOMATION AND SITUATIONAL AWARENESS  (ICAO programme coordinator: Julio Siu)	<b>IMPLEMENT THE NEW ICAO FLIGHT PLAN FORMAT</b>  Project coordinator: Mayda Ávila (COCESNA)  Experts contributing to the project: Jorge Centella (Cuba) Betty Castaing (Dominican Republic) Raymond Ahlberg (United States) Susan E. Pfingstler (IATA) Miguel Torres/Julio Ruiz (Mexico)	May 2009	April 2012
<b>Objective</b>	Support the implementation of the new ICAO flight plan format based on the regional performance objective of the performance-based plan for the NAM/CAR Regions (NAM/CAR RPBANIP) and in accordance with the CAR/SAM regional strategy for this implementation.		
<b>Scope</b>	The project contemplates the drafting of guidelines for action and the proposal of publications to facilitate the harmonious implementation of the new ICAO flight plan format by NAM/CAR States or organisations: <ul style="list-style-type: none"> <li>• Consolidated analysis of assessments made by States s to possible impact of the implementation of the new FPL format.</li> <li>• Proposal of considerations for conducting trials between systems capable of processing the new flight plan.</li> <li>• Proposal of contingency procedures.</li> <li>• Proposal of technical/operational considerations for the transition.</li> </ul>		
<b>Metrics</b>	<ul style="list-style-type: none"> <li>• Number of States/ANSPs participating in regional tests</li> <li>• Number of States/ANSPs that adopt contingency measures using the guide developed</li> <li>• Updating of agreements and publications in accordance with the technical/operational considerations proposed for the transition</li> </ul>		

<b>Strategy</b>	<p>Project activities were coordinated amongst project members, the project coordinator, and the programme coordinator, mainly through teleconferences and meetings to be held during events scheduled in the work programme, such as the meeting held immediately after the NFPL meeting in March 2012.</p> <p>The project coordinator coordinated with the programme coordinator the inclusion of requirements of other projects and information from the NAM/CAR implementation working groups. Additional experts were incorporated in accordance with the specialised tasks carried out.</p> <p>The deliverables of this project will be submitted to the programme coordinator for presentation to GREPECAS.</p>
<b>Rationale</b>	Support the implementation, proposing core documentation to serve as reference to the States for the transition, testing and contingencies related to the new flight plan format.
<b>Related projects</b>	This project is related to the projects under Programme C:

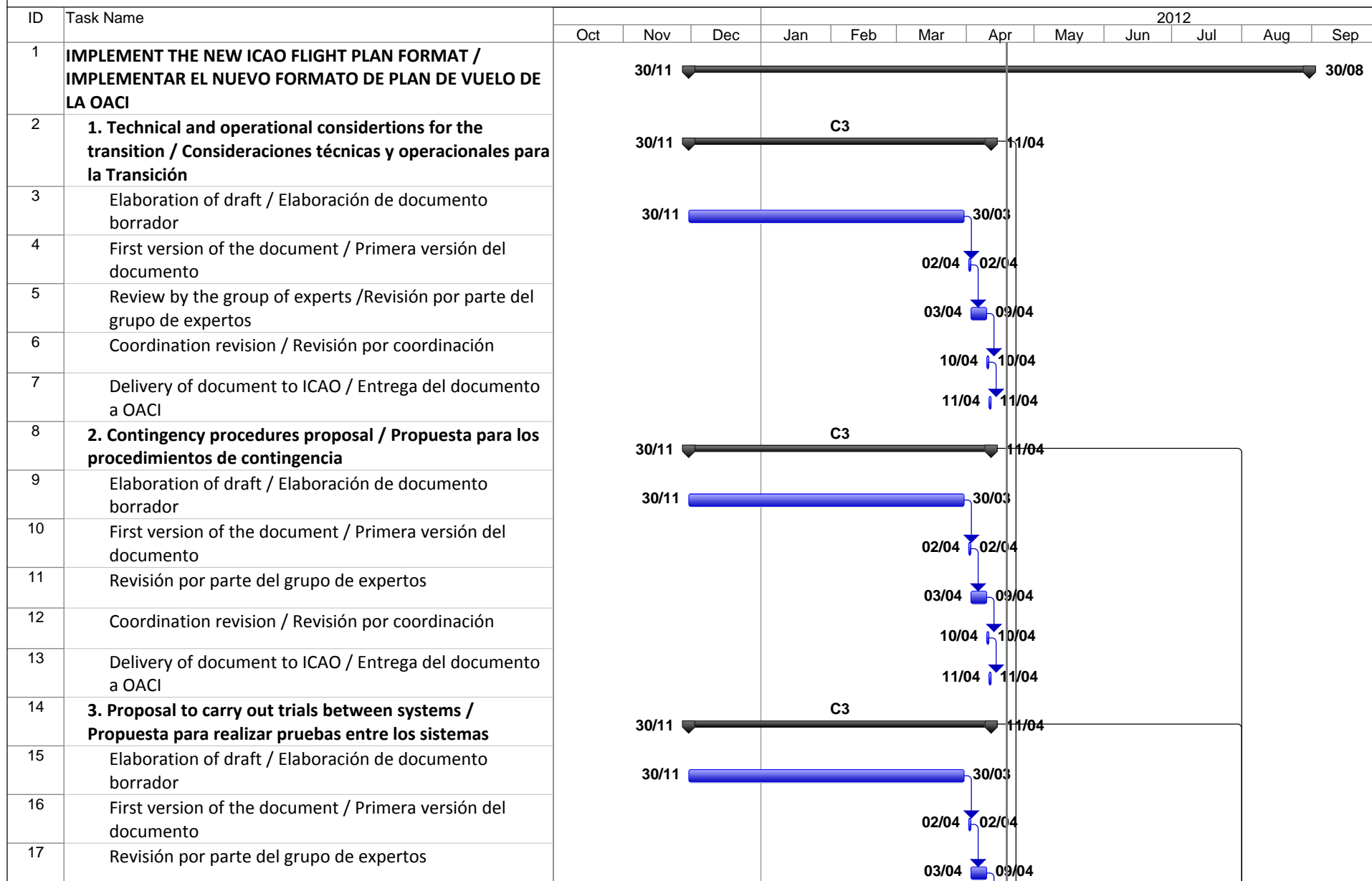
<b>Project Deliverables</b>	<b>Relationship with the regional performance-based plan (PFF)</b>	<b>Responsible Party</b>	<b>Status of Implementation <sup>1</sup></b>	<b>Date of Delivery</b>	<b>Comments</b>
Guides on the transition to the new filed flight plan format	RPO 5, NAM/CAR RPBANIP	ICAO		Completed	Since 2010, ICAO has provided guidelines for the transition to the new filed flight plan format
Regional strategy for the transition to the new filed flight plan format	RPO 5, NAM/CAR RPBANIP	ICAO		Completed	The strategy was approved at the GREPECAS/16 meeting

<sup>1</sup> \*Grey      *Task not started yet*  
Green      *Activity being implemented as scheduled*  
Yellow      *Actividad started with some delay, but expected to be implemented on time*  
Red      *Activity not implemented on time; mitigation measures are required*

Project Deliverables	Relationship with the regional performance-based plan (PFF)	Responsible Party	Status of Implementation <sup>1</sup>	Date of Delivery	Comments
Identification of stakeholders and the possible impact of the implementation of the new flight plan format (FPL/RPL/CPL)	RPO 5, NAM/CAR RPBANIP	NACC WGs		Completed	This identification was done at the first NFPL workshop held in 2010 and has been updated at each follow-up meeting. Its status is shown in the website of the NACC Regional Office.
Consolidated analysis of the assessments made by States of possible impact of the implementation of the new FPL format.	RPO 5, NAM/CAR RPBANIP	Project C3		Completed	The impact matrix used in the Region corresponds to the work presented by Project C3 in its initial 2010 version.
Assessment of current/future flight plan processing capabilities with respect to the new flight plan format	RPO 5, NAM/CAR RPBANIP	ICAO/ NACC WGs		Completed	An initial assessment was done at the first NFPL workshop held in 2010. Information about the status of these capabilities is provided at each follow-up meeting for the adoption of relevant action.
Proposal of considerations for conducting trials between systems capable of processing the new flight plan	RPO 5, NAM/CAR RPBANIP	Project C3		April 2012	An initial review of the delivery was presented at the flight plan format implementation follow-up meeting (Mexico, 26-30 March 2012).
Trials between systems capable of processing the new flight plan	RPO 5, NAM/CAR RPBANIP	ICAO/ States/ Territories/ International organisations		August 2012	Preliminary offline tests were conducted in November 2011 and January 2012 were conducted between Mexico, COCESNA; Dominican Republic and Aeroméxico. Other regional tests are scheduled for May to August 2012 at the level of both ANSPs and airspace users.
Proposed contingency procedures	RPO 5, NAM/CAR RPBANIP	Project C3		April 2012	An initial review of the delivery was presented at the flight plan format implementation follow-up meeting (Mexico, 26-30 March 2012).

Project Deliverables	Relationship with the regional performance-based plan (PFF)	Responsible Party	Status of Implementation <sup>1</sup>	Date of Delivery	Comments
Application of contingency procedures	RPO 5, NAM/CAR RPBANIP	States/ Territories/ International organisations		August 2012	Contingency measures were analysed since March 2012, a final decision on their application is expected for August 2012.
Publication of transition actions, trials and other publications for users and stakeholders	RPO 5, NAM/CAR RPBANIP	States/ Territories/ International organisations		November 2012	Several AIC have been published. A sample AIC is available in the NACC website. Several publications are foreseen, such as a revised AIC and NOTAMs, which are in addition to publications by the State related to this implementation.
Proposal of technical/operational considerations for the transition	RPO 5, NAM/CAR RPBANIP	Project C3		April 2012	An initial review of the delivery was presented at the flight plan format implementation follow-up meeting (Mexico, 26-30 March 2012).
Assessment and adjustment of transition actions	RPO 5, NAM/CAR RPBANIP	ICAO		July 2012	
Drafting of the transition plan	RPO 5, NAM/CAR RPBANIP	States/ Territories/ International organisations		July 2012	
Monitoring of transition activities	RPO 5, NAM/CAR RPBANIP	ICAO		January 2013	
<b>Resources needed</b>	Designation of experts and implementation of activities through the group of experts (WGs).				

CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP / GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION (GREPECAS)  
PROJECT C3 / PROYECTO C3  
IMPLEMENT THE NEW ICAO FLIGHT PLAN FORMAT / IMPLEMENTAR EL NUEVO FORMATO DE PLAN DE VUELO DE LA OACI



CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP / GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION (GREPECAS)  
PROJECT C3 / PROYECTO C3  
IMPLEMENT THE NEW ICAO FLIGHT PLAN FORMAT / IMPLEMENTAR EL NUEVO FORMATO DE PLAN DE VUELO DE LA OACI

ID	Task Name	2012											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
18	Coordination revision / Revisión por coordinación												
19	Delivery of document to ICAO / Entrega del documento a OACI												
20	Assessment of technical proposal for the transition / Evaluación de propuesta técnica para la transición												
21	Application of contingency measures / Aplicación de procedimientos de contingencia												
22	Trials between systems / Ensayos entre los sistemas												

10/04  
11/04  
23/04  
27/04

ESTADOS  
01/08 30/08  
ESTADOS  
01/08 30/08

## APENDICE B1

### PROJECT AUTOMATION

SAM Region	PROJECT DESCRIPTION (DP)	PD N° C1	
Programme	Project Title	Starting Date	Ending Date
Automation and ATM Situational Awareness (Programme Coordinator: Onofrio Smarrelli)	Automation  <i>Project Coordinator: Alessandro Santoro (Brazil)</i> <i>Contributing experts: Automation Group (Brazil), Omar Gouarnalusse (Argentina) and SAM/IG ATM Automation Group</i>	September 2009	December 2014
<b>Objective</b>	Support States of the SAM Region in the implementation of automated systems, and in their regional interconnection		
<b>Scope</b>	The scope of the project includes the drafting of guidelines, trials for the identification of the automation level required at the Region's ATS units, and the implementation of automation systems and their interconnection through the VSAT based South American digital network (REDDIG)		
<b>Metrics</b>	<ul style="list-style-type: none"> <li>• Drafting of the following documents: <ul style="list-style-type: none"> <li>✓ Guidance document on automated systems requirements at ATS units (SSS)</li> <li>✓ Memorandum of Understanding (MoU) model for the interconnection of automated systems</li> </ul> </li> <li>• Interconnection of automated systems between: <ul style="list-style-type: none"> <li>✓ Argentina-Brazil</li> <li>✓ Argentina-Chile</li> <li>✓ Argentina-Uruguay</li> <li>✓ Brazil-Uruguay</li> <li>✓ Brazil-Venezuela</li> </ul> </li> <li>• Reduction in number of operational errors, including LHD</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>Automation</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 CAR/SAM air traffic control centres have had difficulties in duly coordinating air traffic, an important factor contributing in air traffic incidents. The air traffic control automated centres' interconnection will permit a coordinated automated air traffic for the transfer of responsibilities between CAR/SAM adjacent area control centres, thus reducing the risk in aeronautical incidents generated by undue coordination activities and improving, at the same time, the planning phases for an efficient control of flights from/to corresponding Flight Information Regions (FIR).</li><li>• The interconnection of automated systems would be facilitated, in view of REDDIG (SAM VSAT regional network), which has the necessary capability to transport automated systems applications</li><li>• This project contributes towards the implementation of SAM PFF CNS 04, ATM 05 and ATM 06 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>• ATFM</li><li>• Implementation of the New ICAO Flight Plan Model</li><li>• Improve ATM Situational Awareness</li></ul>



Project Deliverables	Relationship with Performance Based Regional Plan (PFF)	Responsible	Status of Implementation <sup>1</sup>	Delivery Date	Remarks
Automation level required according to the ATM service provided in airspace and international aerodromes, assessing <ul style="list-style-type: none"> <li>operational architecture design,</li> <li>characteristics and attributes for</li> <li>interoperability,</li> <li>data bases and software, and</li> <li>technical requirements.</li> </ul>	PFF SAM CNS 04  PFF SAM ATM 05  PFF SAM ATM06	Project Coordinator and ATM Automation Group		Completed	The System and Subsystem Specifications (SSS) document has been drafted for the identification of automated requirements necessary at ATS units (ACC)
Guidelines for elaboration of Memorandum of Understanding (MoU) for the implementation of the automation system interconnection	PFF SAM CNS 04	Project Coordinator and Omar Gouarnalusse (Argentina)		Completed	A model MoU for the interconnection of automated systems has been developed

<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
Monitor the implementation of flight plan data processing system and electronic transmission tools	<p>PFF SAM CNS 04</p> <p>PFF SAM ATM 05</p> <p>PFF SAM ATM06</p>	Project Coordinator		July 2013	<p>A regional action plan to monitor automated systems interconnection between adjacent ACCs has been drafted.</p> <p>With regard to automated systems interconnection, five MoUs have been drafted and signed between SAM States: Argentina-Brazil; Argentina-Chile; Argentina-Uruguay; Brazil-Uruguay; Brazil-Venezuela.</p> <p>Radar data has been interconnected between Argentina-Uruguay using IP protocol through REDDIG.</p> <p>Flight plan and radar data exchange trials have been conducted between Brazil-Venezuela.</p> <p>It is expected that by July 2013, automated systems interconnection is completed between States having drafted and signed the MoUs, as well as new MoU developed as new automated systems are implemented in the Region</p>

Project Deliverables	Relationship with Performance Based Regional Plan (PFF)	Responsible	Status of Implementation <sup>1</sup>	Delivery Date	Remarks
<p>Monitor Implementation of additional/advanced automation support tools to increase aeronautical information sharing</p> <ul style="list-style-type: none"> <li>• ETMS or similar</li> <li>• MET information</li> <li>• AIS/NOTAM dissemination</li> <li>• Surveillance tools to identify airspace sector boundaries</li> <li>• Use of A-SMGC in specific aerodromes, as required</li> </ul>	<p>PFF SAM CNS 04</p> <p>PFF SAM ATM 05</p> <p>PFF SAM ATM06</p> <p>PFF SAM AGA04</p> <p>PFF SAM AIM 02</p> <p>PFF SAM MET 04</p>	TBD		December 2014	Activity not started
Monitor implementation progress of automation activities in the SAM Region		ICAO		September 2009-December 2014	
Resources necessary	<p>Designation of experts in the conduct of the deliverables.</p> <p>Implement facilities required to permit interconnection of automated systems in accordance with the dates established in the MoUs drafted and signed to this end</p>				

**GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)**  
**PROYECTO DE AUTOMATIZACION ATM / ATM AUTOMATION PROJECT**

[illegible]

**GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)**  
**PROYECTO DE AUTOMATIZACION ATM / ATM AUTOMATION PROJECT**

ID	Nombre de tarea	2009		2010		2011		2012		2013		2014		2015
		H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1
11	Modelo de plan acción regional para interconexión sistemas automatizados (planes de vuelo y datos radar) / Regional action plan model for interconnection of automated systems (flight plan and radar data)	<b>Proyecto), Grupo Automatizacion ATM,OACI/ICAO</b> <b>01/09 - 02/10</b>												
12	MoU revisados y firmados para interconexion de sistemas automatizados (plan de vuelo y datos radar) / Reviewed and signed MoUs for interconnection of automated systems (flight plan and radar data)	<b>Estados SAM,OACI/ICAO,A. Santoro (Coordinador Proyecto)</b> <b>19/10 - 31/05</b>												
13	Implantacion de la interconexion de sistemas automatizados (Datos radar y datos de plan de vuelo)	<b>Estados SAM,OACI/ICAO</b> <b>20/05 - 31/12</b>												
14	<b>Monitorear implantación herramientas apoyo adicionales/avanzadas de automatización para incrementar compartición información aeronáutica / Monitor implementation of additional/advanced automation support tools to increase aeronautical information sharing</b>	<b>01/09 - 31/12</b>												
15	Recoleccion de informacion / Collection of information	<b>TBD</b> <b>04/05 - 01/08</b>												
16	Análisis de la información / Analysis of information	<b>TBD</b> <b>02/08 - 16/10</b>												
17	Entrega documento borrador para apoyo implantación sistemas avanzados de automatización / Delivery of document in support of advanced automation systems implementation	<b>TBD</b> <b>17/10 - 24/10</b>												
18	Revisión documento final / Review of final document	<b>Coordinador Proyecto, Grupo Automatizacion ATM,OACI/ICAO</b> <b>15/11 - 31/01</b>												
19	Implantación de sistemas automatizados avanzados / Implementation of advanced automated systems	<b>Estados SAM</b> <b>30/08 - 31/12</b>												

**GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)**  
**PROYECTO DE AUTOMATIZACION ATM / ATM AUTOMATION PROJECT**

ID	Nombre de tarea	2009		2010		2011		2012		2013		2014		2015
		H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1
20	<b>Monitorear las actividades de implantación del proyecto Automatización ATM / Monitor implementation activities of ATM Automation project</b>													
21	Monitorear las actividades de implantación del Proyecto Automatizacion ATM / Monitor implementation activities of ATM Automation project													

## APPENDIX B2

## PROJECT IMPROVE ATM SITUATIONAL AWARENESS IN THE SAM REGION

SAM Region	PROJECT DESCRIPTION (PD)	PD N° C2	
Programme	Project Title	Starting Date	Ending Date
ATM Automation and Situational Awareness (Programme Coordinator: Onofrio Smarrelli)	Improve ATM Situational Awareness in the SAM Region  Project Coordinator: Paulo Vila (Peru) Contributing experts: José Rubira, Marcos Vidal, Jorge Otiniano and Daniel Gomez (Peru); Javier Vittor (Argentina)	October 2011	November 2013
Objective	Develop guidelines supporting the implementation of improvements in the situational awareness of ATS units in the South American Region		
Scope	Guidelines supporting the implementation of various applications, such as common traffic visualization, common meteorological conditions visualization and communications in general <ul style="list-style-type: none"> <li>Analysis of the current surveillance infrastructure and identification of necessary improvements to support en route and terminal airspaces, airspace classification, PBN and ATFM</li> <li>Implementation of ADS-B, ADS-c and/or MLAT surveillance systems at selected airspaces</li> <li>Minimum common electronic information and data bases required in support of decision-making process and alert systems towards an interoperable situational awareness among centralized ATFM units</li> <li>Implement flight plan data process systems (new FPL format) and data communications tools among ACC's</li> <li>Implement advanced automation support tools to contribute towards the sharing of aeronautical information</li> </ul>		
Metrics	Drafting of following documents: <ul style="list-style-type: none"> <li>Regional surveillance strategy for the implementation of systems in support of improvement of situational awareness – revised</li> <li>Evaluation of the surveillance systems coverage in the SAM Region - completed</li> <li>Guideline on technical/operational considerations for ADS-B implementation - completed</li> <li>Guideline on technical/operational considerations for MLAT implementation - completed</li> <li>Guideline on technical considerations in support of ATFM implementation - completed</li> <li>Guideline for the drafting of SIGMET in graphical format - completed</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>Improve ATM situational awareness 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>• Improve situational awareness has been identified as a great support for ATM, contributing in the increase of safety and in flight efficiency</li> <li>• During the seventh meeting of the SAM Implementation Group (SAM/IG/7), a review was made to the project <i>Improve ATM situational awareness in the SAM Region</i>, considering the nomination of a coordinator for the SAM Region</li> <li>• In addition, a close relationship with the other programmes and their respective projects is necessary, with the aim of collecting the operational requirements demanded by the mentioned applications and their respective tentative implementation dates</li> <li>• This project contributes to the implementation of SAM PFF CNS 04, ATM 05, ATM 06 and MET 03 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>• Air Navigation Systems in Support of PBN</li> <li>• Automation</li> <li>• ATFM</li> <li>• Implementation of the ICAO New Flight Plan Format</li> <li>• ATN Ground-ground and Air-ground Applications</li> </ul>



Project Deliverables	Relationship with Performance Based Regional Plan (PFF)	Responsible	Status of Implementation <sup>1</sup>	Delivery Date	Remarks
<i>Evaluation of surveillance infrastructure and identification of surveillance systems improvements</i>					
Revision to regional surveillance strategy for the implementation of systems in support to improvement of situational awareness	PFF SAM CNS 04 PFF SAM ATM 06	Paulo Vila (Peru)		June 2012	An initial revision to the strategy was presented at SAM/IG/8 meeting (Lima, Peru, 10-14 October 2011)
Evaluation of current surveillance systems coverage in the SAM Region	PFF SAM CNS 04	TBD		October 2012	Some surveillance coverage diagrammes have been provided by States of the Region Designation of an expert for the conduct of the activity is pending
<i>Drafting of regional plan for ADS-B and MLAT implementation</i>					
Guideline on technical/operational considerations for ADS-B implementation	PFF SAM CNS 04 PFF SAM ATM 06	José Rubira (Peru) Marco Vidal (Peru)		June 2012	The guideline will be based on the Peruvian experience regarding the progress in the implementation of ADS-B in Pisco
Guideline on technical/operational considerations for MLAT implementation	PFF SAM CNS 04 PFF SAM ATM 06	TBD		June 2013	Designation of an expert for the conduct of the activity is pending

<sup>1</sup>

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**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 on technical considerations in support of ATFM implementation	PFF SAM CNS 01 PFF SAM ATM 05	Javier Vittor (Argentina)		October 2013	The guideline will base itself on the CAR/SAM ATFM Manual approved through GREPECAS Conclusion 16/35
Guideline for the drafting of SIGMET in graphical format	PFF SAM MET 03	Jorge Otiniano (Peru) Daniel Gómez (Perú)		October 2012	The guideline will be based on the Peruvian experience in the use of meteorological information in graphical format, including the SIGMET
Monitor the implementation of improving ATM situational awareness activities in the SAM Region		ICAO		March 2010-October 2013	
Resources necessary	Designation of experts for the conduct of the deliverables				

**GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)**  
**MEJORA A LA COMPRESION SITUACIONAL ATM EN LA REGION SAM / IMPROVE ATM SITUATIONAL AWARENESS IN THE SAM REGION**

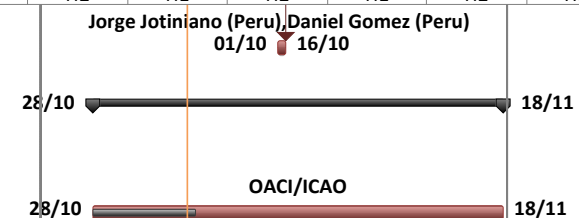
ID	Nombre de tarea	Duration	Start	Finish								
					H2	H1	H2	H1	H2	H1	H2	
1	MEJORA A LA COMPRESION SITUACIONAL ATM EN LA REGION SAM / IMPROVE ATM SITUATIONAL AWARENESS IN THE SAM REGION	541 days	Fri 28/10/11	Mon 25/11/13	Implantación basado en performance, Proyecto C del CNS/ATM/SG, Estrategia Regional Unificada de V							
2	Evaluación de la infraestructura de vigilancia e identificación de mejoras a los sistemas de vigilancia / Develop guidelines supporting the implementaion of improvements in the situation awareness of ATS units in the South American Region	136 days	Mon 05/12/11	Tue 12/06/12			05/12		12/06			
3	Revisión estrategia regional vigilancia para implantación sistemas en apoyo a mejora comprensión situacional/Revision to regional surveillance strategy for implementation of systems in support situational awareness improvement	136 days	Mon 05/12/11	Tue 12/06/12			05/12		12/06			
4	Recolectar información / Collect information	45 days	Mon 05/12/11	Fri 03/02/12	Paulo Vila (Coordinador Proyecto), OACI/ICAO							
5	Proceso de revisión / Reviewing process	84 days	Mon 06/02/12	Fri 01/06/12	Estados SAM, OACI/ICAO							
6	Entrega documento final / Delivery of final document	7 days	Fri 01/06/12	Tue 12/06/12	01/06 12/06							
7	Evaluación de la cobertura actual en los sistemas de vigilancia / Evaluation of the current surveillance system coverage	220 days	Mon 05/12/11	Mon 08/10/12			05/12		08/10			
8	Collect information / Recolectar información	105 days	Mon 05/12/11	Mon 30/04/12	OACI/ICAO, Coordinador Proyecto, Estados SAM							
9	Entrega de propuesta de borrador / Delivery of draft proposal	85 days	Mon 30/04/12	Mon 27/08/12	TBD							
10	Revisión de la propuesta borrador / Review of draft proposal	25 days	Mon 27/08/12	Mon 01/10/12	Estados SAM, OACI/ICAO							
11	Entrega documento final / Delivery of final document	5 days	Mon 01/10/12	Mon 08/10/12	TBD							
12	Guía de orientación con consideraciones técnicas/operacionales para la implantación de la ADS-B / Guidelines on technical/operational considerations for ADS B implementaion	173 days	Fri 28/10/11	Wed 27/06/12			28/10		27/06			
13	Recolectar información / Collect information	44 days	Fri 28/10/11	Thu 29/12/11	Jose Rubira (Peru), Marco Vidal (Peru)							
14	Apoyo en el suministro de información referente a las iniciativas existentes / Support on the information supply related to current initiatives	44 days	Thu 29/12/11	Wed 29/02/12	Jose Rubira (Peru), Marco Vidal (Peru), OACI/ICAO							
15	Entrega de propuesta de borrador/Delivery of draft proposal	22 days	Wed 29/02/12	Fri 30/03/12	Coordinador Proyecto, Estados SAM, OACI/ICAO							
16	Revisión de la propuesta borrador/Review of draft proposal	13 days	Fri 30/03/12	Wed 18/04/12	Jose Rubira (Peru), Marco Vidal (Peru)							

**GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)**  
**MEJORA A LA COMPRESION SITUACIONAL ATM EN LA REGION SAM / IMPROVE ATM SITUATIONAL AWARENESS IN THE SAM REGION**

ID	Nombre de tarea	Duration	Start	Finish	2011			2012		2013		2014		
					H2	H1	H2	H1	H2	H1	H2	H1	H2	
17	Ajustes finales al documento/Final document adjustments	8 days	Wed 30/05/12	Fri 08/06/12	Jose Rubira (Peru),Marco Vidal (Peru),Coordinador Proyecto,OACI/ICAO									
18	Entrega documento final/Delivery of final document	12 days	Mon 11/06/12	Tue 26/06/12	Jose Rubira (Peru),Marco Vidal (Peru)									
19	Guía de orientación con consideraciones técnicas/operacionales para la implantación MLAT / Guideline on technical/operational considerations for MLAT implementation	405 days	Mon 07/05/12	Fri 22/11/13	07/0522/11									
20	Recolectar información/Collect information	105 days	Mon 07/05/12	Fri 28/09/12	07/05TBD28/09									
21	Entrega de propuesta de borrador/Delivery of draft proposal	130 days	Mon 01/10/12	Fri 29/03/13	01/10TBD29/03									
22	Revision de la propuesta borrador/Review of draft proposal	110 days	Mon 01/04/13	Fri 30/08/13	Coordinador Proyecto,Estados SAM,OACI/ICAO									
23	Ajustes finales al documento/Final document adjustments	55 days	Mon 02/09/13	Mon 18/11/13	02/09TBD18/11									
24	Entrega documento final/Delivery of final document	5 days	Mon 18/11/13	Mon 25/11/13	18/11TBD25/11									
25	Guia de orientación en apoyo a la implantación ATFM / Guideline in support of ATFM implementation	258 days	Mon 09/07/12	Wed 03/07/13	09/0703/07									
26	Collect information/Recolectar información	111 days	Mon 09/07/12	Mon 10/12/12	Javier Vittor (Argentina),Coordinador Proyecto,OACI/ICAO									
27	Entrega de propuesta de borrador/Delivery of draft proposal	65 days	Tue 11/12/12	Mon 11/03/13	Javier Vittor (Argentina)									
28	Revision de la propuesta borrador/Review of draft proposal	25 days	Tue 12/03/13	Mon 15/04/13	Coordinador Proyecto,Estados SAM,OACI/ICAO									
29	Ajustes finales al documento/Final document adjustments	8 days	Thu 06/06/13	Mon 17/06/13	Javier Vittor (Argentina),Coordinador Proyecto									
30	Entrega documento final/Delivery of final document	12 days	Tue 18/06/13	Wed 03/07/13	Javier Vittor (Argentina),Coordinador Proyecto									
31	Guía de orientación para elaborar SIGMET en formato gráfico/Guideline for the drafting of SIGMET in graphic format	181 days	Mon 06/02/12	Tue 16/10/12	06/0216/10									
32	Analizar las diversas ventajas que ofrece el uso del SIGMET gráfico/Analyze advantages offered by the use of graphic SIGMET	45 days	Mon 06/02/12	Mon 09/04/12	Jorge Jotiniano (Peru),Coordinador Proyecto,OACI/ICAO,Daniel Gomez (Peru)									
33	Entrega de propuesta de borrador/Delivery of draft proposal	16 days	Fri 25/05/12	Fri 15/06/12	Jorge Jotiniano (Peru),Daniel Gomez (Peru)									
34	Supervisión o revisiones del plan borrador/Supervision or revisions to draft plan	14 days	Mon 18/06/12	Thu 05/07/12	Coordinador Proyecto,Estados SAM,OACI/ICAO									
35	Ajustes finales al documento/Final document adjustments	60 days	Mon 09/07/12	Mon 01/10/12	Jorge Jotiniano (Peru),Daniel Gomez (Peru),Coordinador Proyecto									

**GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)**  
**MEJORA A LA COMPRESION SITUACIONAL ATM EN LA REGION SAM / IMPROVE ATM SITUATIONAL AWARENESS IN THE SAM REGION**

ID	Nombre de tarea	Duration	Start	Finish		2011			2012		2013		2014		
					H2	H1	H2	H1	H2	H1	H2	H1	H2		
36	Documento final de la Guía/Final document Guide	11 days	Mon 01/10/12	Tue 16/10/12		Jorge Jotiniano (Peru)			Daniel Gomez (Peru)						
37	Monitorear las actividades de implantación de la mejora a la comprensión situacional en la Región SAM/Monitor the implementation of improving ATM situational awareness activities in the SAM Region	536 days	Fri 28/10/11	Mon 18/11/13		28/10			01/10		16/10		18/11		
38	Monitorear las actividades de implantación de la mejora a la comprensión situacional en la Región SAM/Monitor the implementaion of improving ATM situational awareness activities in the SAM Region	536 days	Fri 28/10/11	Mon 18/11/13		28/10			OACI/ICAO				18/11		



## APPENDIX B3

## PROJECT IMPLEMENTATION OF THE NEW ICAO FLIGHT PLAN MODEL

SAM Region	PROJECT DESCRIPTION (PD)	PD N° C3	
Programme	Project Title	Starting Date	Ending Date
ATM Automation and Situational Awareness  (Programme Coordinator: Onofrio Smarrelli)	Implementation of the New ICAO Flight Plan Model  <i>Project Coordinator: Jorge Ávila (Brazil) (March 2010-December 2011)</i> <i>(Currently without project coordinator)</i>  <i>Contributing experts: Alessander Santoro (Brazil), Omar Gouarnalusse (Argentina) and Project RLA/06/901</i>	March 2010	November 2012
<b>Objective</b>	Support in the implementation of the new flight plan model in follow-up to the guidelines established in the CAR/SAM regional strategy		
<b>Scope</b>	The scope of the project consists in the implementation of the following main activities: <ul style="list-style-type: none"> <li>• Guidelines on transition to the new flight plan format</li> <li>• Conduct of trials between systems with capability to process the new flight plan</li> <li>• Drafting of contingency measures and decision on technical/operational considerations for the transition</li> </ul>		
<b>Metrics</b>	<ul style="list-style-type: none"> <li>• Guidelines on the transition to the new flight plan format</li> <li>• Identification of automated systems affected by the new flight plan format</li> <li>• Model action plan for States implementation of the new flight plan format</li> <li>• Model AIC for the dissemination of the new flight plan format</li> <li>• Trials between systems with capability to process the new flight plan</li> <li>• Contingency measures and technical/operational considerations for the transition</li> <li>• Guidance document for safety assessment</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>Implementation of the New ICAO Flight Plan Model</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>	The implementation of the new flight plan format must be co-ordinately carried out in all States of the Region and, in turn, the Region should be aligned with the implementation at other regions. Therefore, the drafting of a project supporting States in said implementation becomes necessary
<b>Related Projects</b>	<ul style="list-style-type: none"><li>• Automation</li><li>• Improve ATM situational awareness</li></ul>

Project Deliverables	Relationship with Performance Based Regional Plan (PFF)	Responsible	Status of Implementation <sup>1</sup>	Delivery Date	Remarks
Guidelines on transition to new flight plan format	PFF SAM ATM 07	ICAO and Project Coordinator		Completed	Guidelines were drafted to: Identify the automated systems affected by the new flight plan format Model action plan for States in the implementation of the new flight plan format Guidelines for the implementation of the new flight plan format during the transition phase
Develop regional strategy for transition to new flight plan format	FF SAM ATM 07	ICAO		Completed	GREPECAS approved the application of the CAR/SAM strategy for the implementation of Amendment 1 to PANS-ATM, 15th Edition (Doc. 4444) through its Conclusion 16/39
Consolidated analysis on assessments made by States on possible impacts in the implementation of the new FPL format	PFF SAM ATM 07	ICAO and Project Coordinator		Completed	All SAM States assessed the impact on the implementation of the new format in their automated systems. The consolidated assessment analysis was presented at SAM/IG/6 meeting (Lima, Peru, 18-22 October 2010)

<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
Proposed considerations to conduct trials between systems with new flight plan processing capacity	PFF SAM ATM 07	Project Coordinator, Omar Gouarnalusse (Argentina) and States		June 2012	Initial considerations are indicated in the national action plans for the implementation of the new flight plan format. Additional considerations were proposed at the second seminar on the implementation of the new flight plan format (Lima, Peru, 19-20 May 2011) 40% of the States of the Region have started implementing the changes in the automated systems, carrying out local partial trials. Initial trials have started between some States of the Region
Development of contingency procedures and determination of operational/ technical considerations for the transition	PFF SAM ATM 07	ICAO, Project Coordinator, RLA/06/901 Project and States		June 2012	A safety assessment guideline was drafted, with the purpose of carrying out a qualitative risk analysis from the SAM Region point of view before the validity of Amendment 1 to ICAO PANS-ATM, 15th Edition (Doc. 4444), related with the new flight plan content (NEW format) as of 15 November 2012 and during the transition period starting on 1 July 2012, when it is expected that airspace users use both the CURRENT and NEW formats The States of the Region are using this document as orientation in the safety assessment and in the drafting of a contingency plan in this regard

Project Deliverables	Relationship with Performance Based Regional Plan (PFF)	Responsible	Status of Implementation <sup>1</sup>	Delivery Date	Remarks
<p>Technical/operational proposals for the transition</p> <p>Legislation</p> <p>Safety assessment</p> <p>Automated systems</p> <p>Training plan</p>	PFF SAM ATM 07	ICAO, Project Coordinator, Alessander Santoro (Brazil) and States		November 2012	<p><i>Legislation</i></p> <p>A model AIC for the dissemination of information on the new flight plan format implementation has been drafted. In addition, States national action plans must take into consideration amending the technical/operational documentation related with the new flight plan format. 30% of the States have started amending their national publication with regard to the new flight plan format</p> <p><i>Safety assessment</i></p> <p>(refer to information in row above)</p> <p><i>Automated systems</i></p> <p>40% of the States would be able to support the NEW and CURRENT flight plan format during the transition period</p> <p><i>Training plan</i></p> <p>70% of the States of the Region have started implementing the training plan in their national action plan for the implementation of the new flight plan format. The training is addressed to ATS, AIS operational personnel, technical personnel and users. As of April 2012, Chile will start with via web courses for national and foreign personnel interested</p>
Monitor the implementation of the new ICAO flight plan model activities in the SAM Region		ICAO		March 2010 - 15 November 2012	
Resources necessary	Funding for the implementation of changes in automated systems (AMHS / AFTN, FDP), adoption of possible contingency measures and training to personnel involved				

**GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)**  
**IMPLANTACION DEL NUEVO MODELO DE PLAN DE VUELO DE LA OACI / IMPLEMENTATION OF THE NEW ICAO FLIGHT PLAN MODEL**

ID	Nome da tarefa	2010					2011				2012				
		Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1
1	<b>Implantación del nuevo modelo de plan de vuelo de la OACI / Implementaion of the new ICAO Flight Plan Model</b>		19/03												15/11
2	<b>Project management process / Proceso de gerencia del proyecto</b>		19/03		14/06										
3	Define Project Manager/Definir el Gerente de Proyecto		CP 19/03												
4	Identify States experts/Identificar expertos de los Estados		CP 19/03		14/06										
5	<b>Guías sobre la transicion al nuevo formato de plande vuelo presentado / Guidelines on transition to new flight plan format</b>		19/03		25/05										
6	Guía sobre identificación de los sistemas afectados con el NUEVO FPL/Guideline to identify the automated system affected by the NEW FPL		CP,ICAO / OACI 19/03		21/04										
7	Modelo de plan de acción para la implnatación del NUEVO FPL por los Estados/Model of action plan for States in the implementaion of the NEW FPL		CP,ICAO / OACI 19/03		25/05										
8	Guia sobre la implanatación del NUEVO FPL durante el periodo de transicion/Guidelines for the implementaion of the NEW FPL during the transition phase		OACI/ICAO 19/03		24/05										
9	<b>Elaborar una estrategia regional de transicion al nuevo formato de plan de vuelo / Develop regional strategy for transition to new flight plan format</b>		19/03							01/04					
10	Elaboración estrategia regional y aprobación por GREPECAS		19/03							CP,ICAO / OACI 01/04					
11	<b>Análisis consolidado de las evaluaciones realizadas por los Estados de los posibles impactos de la implementación del nuevo formato de FPL/Consolidated analysis on assessments made by States on possible impacts in the implemntation of the new FPL</b>				24/05					15/10					
12	Identificación de los posibles impactos/Posible impact identificat				Estados SAM/ SAM States 24/05					24/06					
13	Recolectar las evaluaciones/Collect the evaluation				Estados SAM/ SAM States 01/07					31/08					
14	Análisis consolidado de las evaluaciones realizadas por los Estado									ICAO / OACI,CP 06/09					
15	Elaboración de informe con el análisis consolidado de las evaluaciones realizadas por los Estados/Consolideted analysis on assessments made by States on possible impacts in the implementaion of the NEW FPL									ICAO / OACI,CP 04/10					
16	<b>Propuesta de consideraciones para realizar los ensayos entre sistemas con capacidad de procesamiento del nuevo plan de vuelo/Proposed considerations to conduct trials between systems with the new flight plan processing capacity</b>														
17	Propuesta de consideraciones para realizar los ensayos entre sistemas con capacidad de procesamiento del nuevo plan de vuelo/Proposed considerations to conduct trials between systems with the capacity to process the new flight plan														

PM = Programme Manager/Gerente Programa  
CP = Project Coordinator/Coordinador Proyecto

**GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)**  
**IMPLANTACION DEL NUEVO MODELO DE PLAN DE VUELO DE LA OACI / IMPLEMENTATION OF THE NEW ICAO FLIGHT PLAN MODEL**

