International Civil Aviation Organization

CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
Second Meeting of the Programmes and Projects Review Committee (PPRC/2)
(Lima, Peru, 16 to 18 July 2013)

Agenda Item 3: Review of GREPECAS Programmes and Projects

3.5 Projects of the AGA Programme (ASBU: BO-80)

DESCRIPTION AND FOLLOW-UP OF AERODROME PROJECT ACTIVITIES

(Presented by the Secretariat)

SUMMARY

This working paper presents to the meeting the progress of the work carried out by the aerodromes programme projects, as well as information on the status of implementation of the activities and tasks of said projects in the field of aerodrome.
The objectives, scope, metrics, strategy, rationale and implementation dates of each project are shown in **Appendices A** and **B** for the CAR Region and in **Appendices C, D, E, F** and **G** for the SAM Region.

References:

- Report of the AGA/AOP/SG/08 meeting, July 2011
- Report of the GREPECAS/16 meeting, March 2011
- Report of the CRPP/1 Meeting, April 2012

ICAO strategic objectives	*This working paper is related to the following strategic objectives:* *A – Safety* *C – Environmental protection and sustainable development of air transport*

1. Background

1.1 The results of the GREPECAS/16 meeting in relation to the new organisation and work methodology proposed by ICAO and approved by member States were presented to the AGA/AOP/SG/8 meeting, and discussed and approved in such meeting.

1.2 In accordance with the new GREPECAS organisation, based on programmes and projects, the regional experts of the NACC and SAM Offices were designated as programme coordinators, and CAR and SAM State officials were designated as project coordinators and experts for the development and execution of tasks related to the aforementioned projects.

1.3 The meeting defined projects for the CAR and SAM Regions for a period extending until 2015. Initially, the programme was entitled Aerodrome and Runway Programme, but the AGA/AOP/SG/8 meeting changed it to Aerodrome Programme.

1.4 With regard to the transformation of the AGA/AOP Subgroup, its terms of reference, work programme, and task forces to the aerodrome programme and projects, the State representatives participating in the meeting reviewed the proposed projects and agreed on adopting the following projects:

CAR Region:

- Aerodrome certification
- Safety assessment for aerodromes with non-conformities
- Improvement of runway safety

SAM Region:

- Aerodrome certification
- Safety assessment for aerodromes with non-conformities
- Improvement of runway safety
- Quality and availability of aeronautical data
- Improvement of physical and operational characteristics of aerodromes

1.5 In PPRC/1 the progress reached by the projects in both regions was presented. Also, a correction was made in the objective and scope of projects CAR F3 and SAM F3 on the Improvement of runway safety, determining that activities will focus in infrastructure and not operational aspects in order to distinguish them from the activities conducted by RASG-PA regional group.

1.6 On the other hand, the meeting was informed that the projects have their respective coordinators, however, the lack of experts to assist the coordinator of the project has been the reason of the delay in their activities and tasks, aspect which is reflected in the progress of the activities of these projects.

Analysis

2.1 In order to facilitate the review of GREPECAS projects, **Appendices A** and **B** lists the projects for the CAR Region and **Appendices C, D, E, F** and **G** lists those for the SAM Region.

2.2 Project description documents contain information on the objectives, scope, metrics, strategy, rationale, related projects, deliverables, responsible parties, resources needed, start and end dates, as well as a section for comments to describe the status of deliverables. Likewise, the GANTT diagram shows, for each project, the time allocated to the various tasks or activities throughout the life cycle of each project.

2.3 The achievement of objectives under the Aerodrome Programme projects still depends upon the availability of the human resources required for the fulfilment of activities and compliance with the timelines of such projects.

2.5 Pursuant to GREPECAS Conclusion 16/49, project coordinators and experts should receive support from their respective civil aviation authorities in terms of resources to participate in face-to-face meetings, teleconferences (GoToMeeting), etc. If the necessary human resources and the respective support are not available, the development of AGA projects will be interrupted and all the burden of the work will fall upon the programme coordinator.

3. Status of implementation of CAR projects

3.1 Since the new GREPECAS organization, approved in the meeting carried out in Punta Cana, Dominican Republic, 28 March to 1st April 2011 (GREPECAS/16), three projects were established in the CAR Region and the Work Programme was presented and accepted in GREPECAS Eighth Meeting of the Aerodromes and Ground Aids/Aerodrome Operational Planning Subgroup, from 19 to 21 July 2011, Mexico. Project F1 addresses the issues related with Aerodrome Certification, considering 4 main

tasks: Aerodrome Inspectors Training, Establishment of the Aerodrome Certification process, Preparation of Certification Manuals and Issuance of Aerodrome Certification.

3.2 The second project F2 "Safety Assessment for aerodromes with Non-conformities" was merged with project F1 since both have a common objective, which is to solve the problems confronted by aerodromes to comply with certification. The use of aeronautical studies and alternate methods that technically justify the deviation of an aerodrome standard are included in the aerodrome certification process.

3.3 Project F3, now named F2, is aimed at aerodrome operator control issues rather than at factors related with air traffic control. This Project has three parts for its implementation: assessment of the potential risk implied by runway incursions (taxiways), assessment of the potential risk implied by runway excursions (runways) and assessment of the situation of the levelled runway strip portion including the runway end safety area (RESA). These three sections are interrelated and comprise situations before landing operation, landing on the runway, and runway excursions.

3.4 As part of the first phase of Project F1 related to Aeronautical personnel Training in the CAR Region, three Seminars/Workshops on the use of Aeronautical Studies in the Aerodrome Certification process were developed in August 2012, the ICAO/FAA Aerodrome Certification Inspector Workshop for the Caribbean Region in June 2012 and the ICAO Regional Workshop on Aerodrome Certification and Inspection in November 2012, which were part of the work plan related to its implementation. In addition, in October last year a survey addressed to States was prepared, which results allowed the analysis of the progress of the project during its first phase, regarding issues related with aerodrome certification implementation, development of guidance material for aerodrome operators, as well as the training level of their inspectors to conduct continuous oversight. In this regard, and according to the results of the survey, the need to continue providing guidance to inspectors and personnel in charge of the aerodrome certification, through workshops/meetings on issues related to alternate methods and procedures to justify the deviation of any aerodrome requirement and SMS implementation.

3.5 Concerning the first phase of the project now named F2, for a better analysis and assessment of the present situation at international aerodromes of the CAR/SAM Air Navigation Plan (ANP), a survey was conducted to States in July 2012, aimed at gathering information on compliance of Annex 14, Vol. I, provisions regarding marking, signs location, lighting, stop bars (if available), graded runway strips and runway end safety area (RESA). Due to the poor response to the referred survey received from States and for a better understanding of the project in execution, the ICAO Regional Workshop on geometric runway design, taxiways and aerodrome visual aids was scheduled, from 9 to 12 July 2013, to improve runway safety and as a complement the survey in order to discuss better practices of some States to avoid and/or improve taxiway designs to prevent runway incursions with the corresponding visual aids complement.

3.6 The two projects currently in execution in the CAR Region are mainly related with compliance of several provisions of Annex 14, aimed at increasing the level of aerodrome security, considering that aviation safety is an integral part of aerodrome planning and operations. Project F1 – Aerodrome Certification Improvements intends to increase the number of certified aerodromes and reduce the number of deficiencies reported in the GANDD. Project F2 – Runway safety Improvement it intends to improve aircraft safe operations at aerodromes reducing the number of events related to runway incursions and excursions, as well as the number of deficiencies reported in the GANDD, which high rate is related with the non-compliance of runway strips requirements, RESA and visual aids among others.

4. Status of implementation in the SAM Region

4.1 Four of the five SAM projects are closely related and are designed to achieve one single objective "Project AGA F1 – Aerodrome certification." The first and most difficult task under F1 has been the development of the Latin American Regulations for Aerodromes (AGA LAR). The AGA LAR set (LAR 139 – Aerodrome Certification, LAR 153 – Aerodrome Operations, and LAR 154 – Aerodrome Design) task has been completed thanks to funds provided by RLA/99/901 SVRSOP Project. Since PPRC/1, under the umbrella of this project, training of Aerodrome Inspectors on the new AGA LAR regulations and the Aerodrome Inspector Manual (MIAGA) has been developed with a two-week course held in Lima, Peru, from 2 to 13 July, and one short course held in Barranquilla, Colombia, from 10 to 14 December, pending for 2014 a workshop on audit techniques and aerodrome inspectors OJT, through an aerodrome certification trial with the new AGA LAR regulations.

4.2 "SAM AGA F2 Project – Safety assessment for aerodromes with non-conformities" conducted, since PPRC/1, a workshop on Aeronautical Studies - Obstacles in Bucaramanga, Colombia, from 15 to 19 October 2012, financed by RLA/06/901 and RLA/99/901 Projects. In this regard, a format for obstacle safety assessment workshops has been developed, which is being offered to the States as of this year with the purpose of training and developing, at the same time, a safety assessment for the airport upon request, in this way we are reaching the training and solution of the non-conformities to ICAO SARPS related to Obstacles.

4.3 "SAM AGA F3 Project - Runway safety improvement," proposed a strategy for avoiding duplication of efforts and rather supporting national and international AGA initiatives. Since PPRC/1 a Visual Aids – New Technologies workshop was held in Lima, from 7 - 11 May, one of its objectives being the reduction of runway incursions by using the appropriate signs. Support was also provided to the organization of the Runway Safety Seminar in the SAM Region held in Quito, Ecuador, from 16 to 19 July, and States/Aerodromes are being assisted in the creation of the RST.

4.4 "SAM AGA Project F4 – Quality and availability of aeronautical data" has originated a regional survey and has developed a quality implementation strategy in aeronautical data.

4.5 Concerning "SAM AGA Project F5 – Improvement of physical and operational characteristics of aerodromes" directly related to aerodrome capacity, the progress in this project have been related to the organized airport development on a national basis in each State. In this regard, a Seminar/Workshop on National Airport Infrastructure Development Plan and Airport Master Plans was held in Lima, Peru, from 17 to 20 June, gathering experts from the Region to discuss the current regional challenges regarding airport capacity.

4.6 Considering the progress obtained in SAM AGA Project F1 and aimed at implementing the projects in the ASBU format, it is proposed to merge Projects AGA F1, AGA F2, AGA F4 and AGA F5 in one new project AGA F1 – Aerodrome Certification related with efficiency and implementation of modules B0 ACDM (80), B0 A-SMGCS (75), B0 AIXM (30) and B0 AMAN/DMAN (15). Project SAM AGA F3, regarding safety, is maintained and would become SAM AGA F2.

4.7 On the other side, having passed two years since GREPECAS programmes and projects methodology was implemented and changes and adjustments to projects to improve the scope of the targets traced have been made, a change in coordinators is advisable so that their job is shared by States.

5. **Suggested action**

5.1 The meeting is invited to:

a) take note of the information provided in this working paper;

b) analyze the document and GANTT diagram for each of the projects described in Appendices A, B, C, D, E, F and G respectively, with a view to approving the corresponding planning, progress and implementation;

c) consider the progress achieved in AGA projects, the human resources required for good and efficient project development, implementation of ASBU methodology and approve the SAM proposal to merge four of the SAM AGA projects in a new SAM AGA F1 and modify the numbering from SAM AGA F3 to F2;

d) consider that having passed two years since the creation of GREPECAS projects, changes in project development, merging and new working methodology, it would be advisable to select new coordinators thanking those terminating in this period for the work done;

e) agree on other actions that are deemed appropriate.

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APPENDIX A

PROJECT ON AERODROME CERTIFICATION IMPROVEMENTS IN THE CAR REGION

CAR Region	**PROJECT DESCRIPTION (PD)**	PD N° F1	
Programme	**Title of the Project**	**Start**	**End**
Aerodromes (ICAO Programme Coordinator: Jaime Calderon)	Aerodrome Certification Improvements **Project Coordinator: Norberto Cabrera (Cuba)** **Experts contributing to the project: Jorge Puquirre (El Salvador)**	October 2011	December 2016
Objective	Aerodrome certification will ensure compliance with ICAO SARPs, providing operational services, equipment and installations according to the operations intended at the aerodrome and facilitating safe and efficient aircraft operations.		
Scope	• Identify the level of implementation of the aerodrome certification process in the CAR Region • Identify training needs and develop relevant training programmes • Provide training to aerodrome inspectors with regards to aerodrome related documentation • Prepare the corresponding certification documentation • Implementation of SMS at aerodromes • Aerodrome certification inspection by the aeronautical authority • Issuance of the aerodrome certificate		
Metrics	• Number of aerodromes certified • Number of reported deficiencies in the GANDD		
Strategy	• Provide training to aerodrome inspectors in the aerodrome certification process, its implementation, the content of the aerodrome manual, SMS implementation, and exemptions. • Conduct an aeronautical study when aerodrome standards cannot be met and a technical analysis that will provide justification on the grounds, that an equivalent level of safety can be attained by other means when specifically recommended in Annex 14, Volume I. • Provide training to aerodrome inspectors in their operational oversight duties including the various related disciplines. All tasks are performed by experts nominated by CAR States under the discretion of the project coordinator. Communications among project members and between the project coordinator and the programme coordinator are done via teleconference and internet.		

Goals:	With this project it is expected to assist States in their main implementation goals as follows: • Achieve 75% of aerodrome certification in the CAR Region. • Diminish 75% of the GANDD reported deficiencies in the CAR Region.
Rationale	• ICAO USOAP audits reveal a large number of aerodromes that have not been certified because of lack of qualified personnel in highly specialized areas, and lack of knowledge of relevant regulations • Aerodromes that were built a long time ago with no consideration of ICAO SARPs This project contributes to the implementation of CAR PFF 07 of the CAR Performance-based Air Navigation Plan (RPBANIP)
Related Projects	The following project was defined in the last meeting of the AGA/AOP/SG/8 and is related to the objective of this DP: • Improvement of runway safety

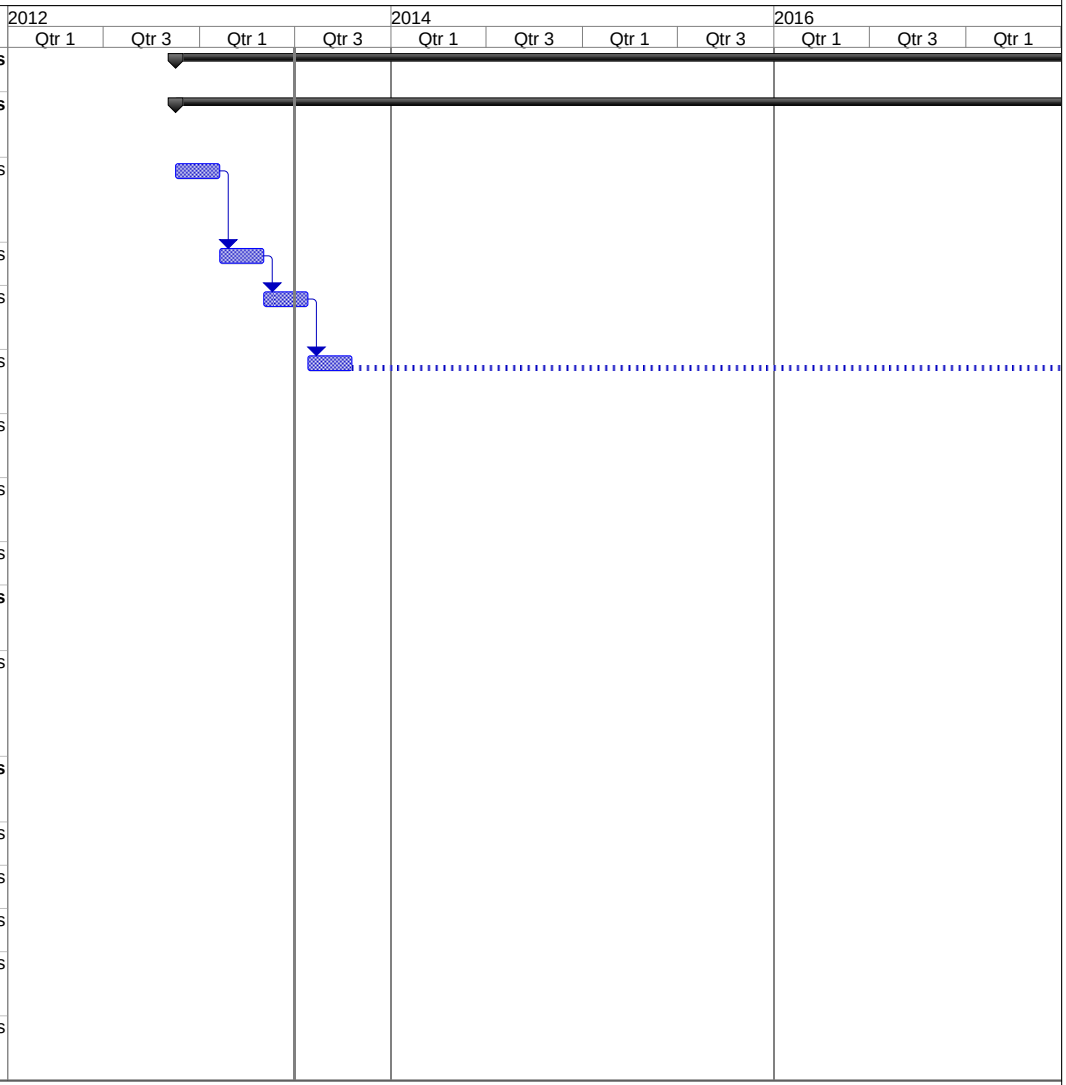
Project Deliverables	**Relationship with the regional performance-based plan (PFF)**	**Responsible**	**Status of Implementation** [1]	**Date of Delivery**	**Comments**
• Identify the level of implementation of the aerodrome certification process in the CAR Region. • Develop an action plan focused on common aerodrome certification issues in the CAR Region.	PFF CAR 07	Norberto Cabrera		December 2012	Finalized. The Regional Workshop on Overcoming the Challenges faced by States with Aerodrome Certification was held in the NACC Office, Mexico, 20-23 September 2011, to identify the level of aerodrome certification implementation in the CAR Region. • Some common issues were identified in the CAR Region with regards to aerodrome certification and a training programme was developed for aerodrome inspectors according to States requirements.

Project Deliverables	Relationship with the regional performance -based plan (PFF)	Responsible	Status of Implementation [1]	Date of Delivery	Comments
• Identify training needs and develop the relevant training related programmes. • Provide training to aerodrome inspectors in aerodrome related documentation	PFF CAR 07	Norberto Cabrera		December 2012	Finalized. Two workshops were carried out for aerodrome inspectors and one on the use of aeronautical studies. • Saint Maarten, 11-15 June 2012, in English • NACC Regional Office, 1-4 October 2012, in Spanish • ICAO NAM/CAR Workshop on the use of Aeronautical Studies in the Aerodrome Certification Process, 21-24 August 2012.
Development of the aerodrome certification related documentation	PFF CAR 07	Norberto Cabrera		December 2014	Follow-up on the development of aerodrome certification documentation based on the training provided to aerodrome inspectors. Additional period of time is required for its implementation.
SMS Implementation at aerodromes	PFF CAR 07	Norberto Cabrera		December 2014	A Workshop on SMS and status of aerodrome certification is planned for 14-18 October 2013. In addition SMS implementation courses are foreseen for aerodrome inspectors during the period 2013-2014. Additional period of time is required for its implementation.
Aerodrome Certification inspection by the Civil Aviation Authority.	PFF CAR 07	Norberto Cabrera		December 2016	Previous to the issuance of an Aerodrome Certificate, the regulatory body should carry out audits and continuous surveillance.
Issuance of the aerodrome certificate.	PFF CAR 07	Norberto Cabrera		December 2016	Once all the previous steps are implemented the aerodromes can be certified.
Resources needed	Designation of experts by States are needed in the execution of some of the deliverables				

GRUPO REGIONAL CAR/SAM

PROYECTO F1: MEJORAS A LA CERTIFICACIÓN DE AERÓDROMOS

ID	Nombre de tarea	Duration
1	**PROYECTO: MEJORAS A LA CERTIFICACIÓN DE AERÓDROMOS / PROJECT: AERODROME CERTIFCATION IMPROVEMENTS**	**3536 days**
2	**FASE 1: Diagnóstico y Capacitación del Personal con la Documentación de Referencia / PHASE 1: Diagnosis and Training of personnel with related documentation**	**2856 days**
3	Recabar información sobre el estado de implementación de la certificación de aeródromos mediante encuestas / Collect information on the status on aerodrome certification through surveys	60 days
4	Identificar y agrupar los aeródromos con problemas comunes / Identify and grouped aerodromes with common problems	60 days
5	Módulo 1: Introducción al proceso de certificación y contenido / Module 1: Introduction to aerodrome certification and contents	60 days
6	Módulo 2: Elaboración del Manual de Certificación de Aeródromos / Module 2: Development of the Aerodrome Manual	125 days
7	Modulo 3: Implementación del SMS en el ambiente del aeródromo / Module 3: SMS implementation in the aerodromes enviroment	60 days
8	Módulo 4: Inspección para la certificación del aeródromo por la Autoridad Aeronáutica / Module 4: Aerodrome certification inspection by the Aviation Authority.	60 days
9	Modulo 5: Otorgamiento de certificado de Aeródromos / Module 5: Isuance of the aerodrome certificate	30 days
10	**FASE 2: Elaboración de la documentación de certificación / PHASE 2: Ellaboration of the certification related documentation**	**830 days**
11	Elaboración del manual de Aeródromo con los requerimientos contenidos en el Manual de Certificación de Aeródromo (DOC. 9774) / Ellaboration of the Aerodrome Manual according to requeriments in the Manual on Aerodrome Certification (Doc. 9774)	300 days
12	**FASE 3: Implementación del SMS en el ambiente de aeródromo / PHASE 3: SMS Implementation in the aerodromes environment**	**770 days**
13	Planificación del Sistema de Gestión de la Seguridad Operacional / Planning of the Safety Management System	30 days
14	Componentes y elementos del SMS / SMS components and elements	30 days
15	Responsabilidad y compromiso de la administración / Responsibility and accountability of the Administration	30 days
16	Responsabilidades respecto de la gestión de la seguridad operacional / Responsibilities with regards to safety management	30 days
17	Designación del personal clave para la gestión de la seguridad operacional / Designation of key safety management personnel	30 days



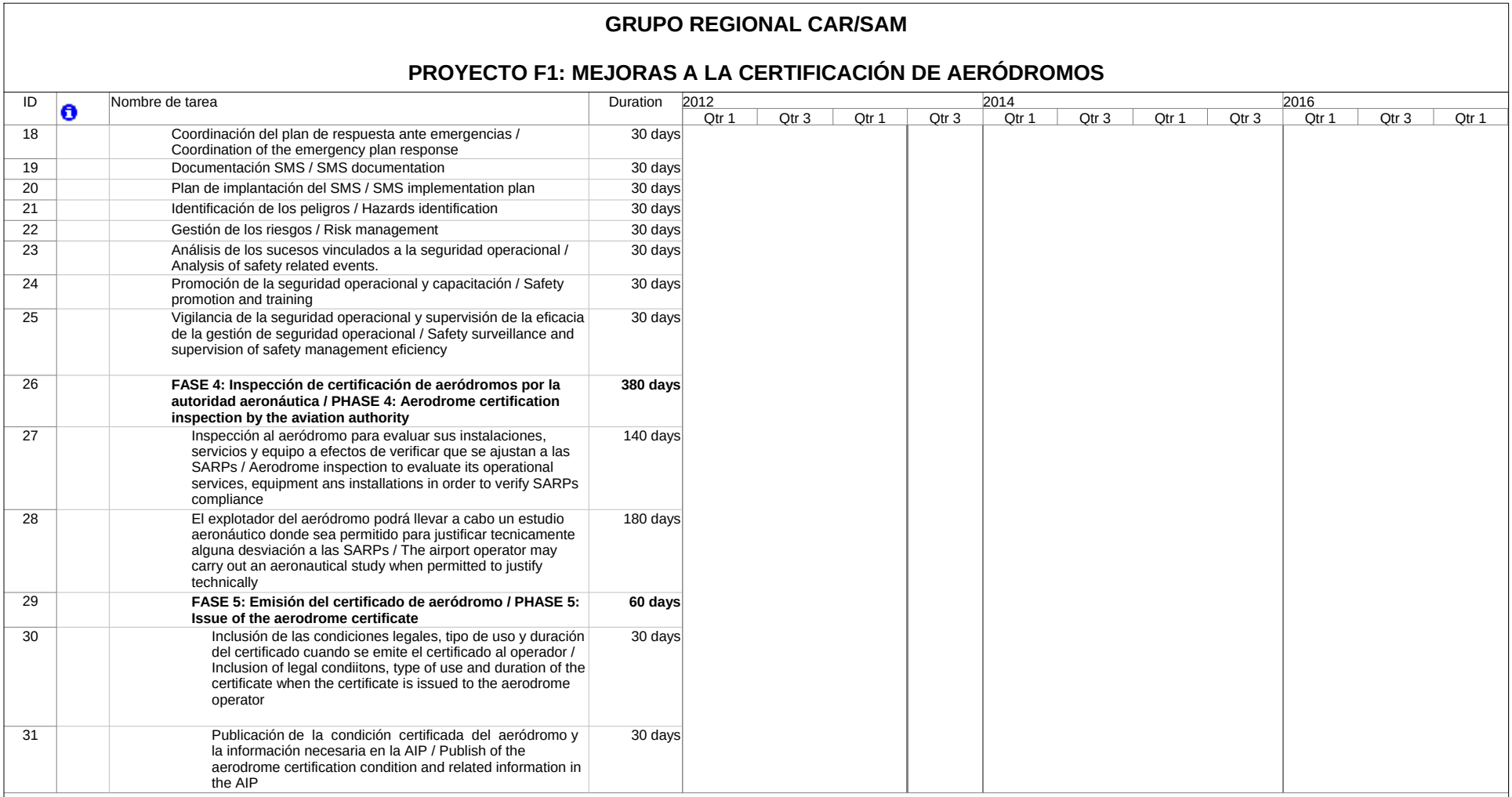
Proyecto: CRPP02 - NEXXAPNa G
Fecha: Mon 01/07/13

Tarea	Tareas externas	Inactive Summary	Start-only
División	Hito externo	Manual Task	Finish-only
Hito	Inactive Task	Duration-only	Progreso
Resumen	Inactive Task	Manual Summary Rollup	Fecha límite
Resumen del proyecto	Inactive Milestone	Manual Summary	

GRUPO REGIONAL CAR/SAM

PROYECTO F1: MEJORAS A LA CERTIFICACIÓN DE AERÓDROMOS

ID	Nombre de tarea	Duration
18	Coordinación del plan de respuesta ante emergencias / Coordination of the emergency plan response	30 days
19	Documentación SMS / SMS documentation	30 days
20	Plan de implantación del SMS / SMS implementation plan	30 days
21	Identificación de los peligros / Hazards identification	30 days
22	Gestión de los riesgos / Risk management	30 days
23	Análisis de los sucesos vinculados a la seguridad operacional / Analysis of safety related events.	30 days
24	Promoción de la seguridad operacional y capacitación / Safety promotion and training	30 days
25	Vigilancia de la seguridad operacional y supervisión de la eficacia de la gestión de seguridad operacional / Safety surveillance and supervision of safety management eficiency	30 days
26	**FASE 4: Inspección de certificación de aeródromos por la autoridad aeronáutica / PHASE 4: Aerodrome certification inspection by the aviation authority**	**380 days**
27	Inspección al aeródromo para evaluar sus instalaciones, servicios y equipo a efectos de verificar que se ajustan a las SARPs / Aerodrome inspection to evaluate its operational services, equipment ans installations in order to verify SARPs compliance	140 days
28	El explotador del aeródromo podrá llevar a cabo un estudio aeronáutico donde sea permitido para justificar tecnicamente alguna desviación a las SARPs / The airport operator may carry out an aeronautical study when permitted to justify technically	180 days
29	**FASE 5: Emisión del certificado de aeródromo / PHASE 5: Issue of the aerodrome certificate**	**60 days**
30	Inclusión de las condiciones legales, tipo de uso y duración del certificado cuando se emite el certificado al operador / Inclusion of legal condiitons, type of use and duration of the certificate when the certificate is issued to the aerodrome operator	30 days
31	Publicación de la condición certificada del aeródromo y la información necesaria en la AIP / Publish of the aerodrome certification condition and related information in the AIP	30 days



Proyecto: CRPP02 - NEXXAPNa G
Fecha: Mon 01/07/13

Tarea
División
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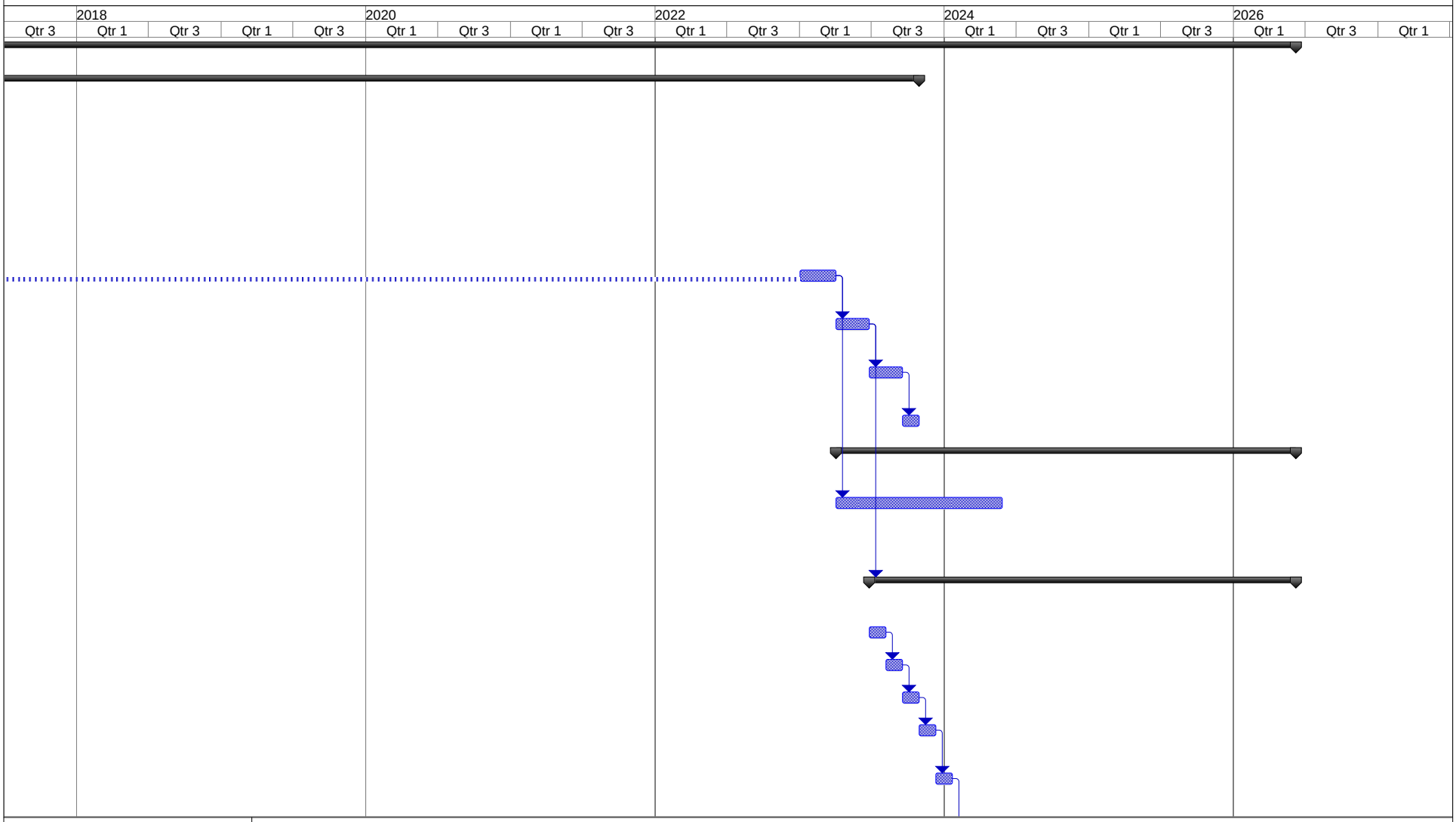
Resumen
Resumen del proyecto
Tareas externas
Hito externo
Inactive Task
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Progreso
Fecha límite

GRUPO REGIONAL CAR/SAM

PROYECTO F1: MEJORAS A LA CERTIFICACIÓN DE AERÓDROMOS



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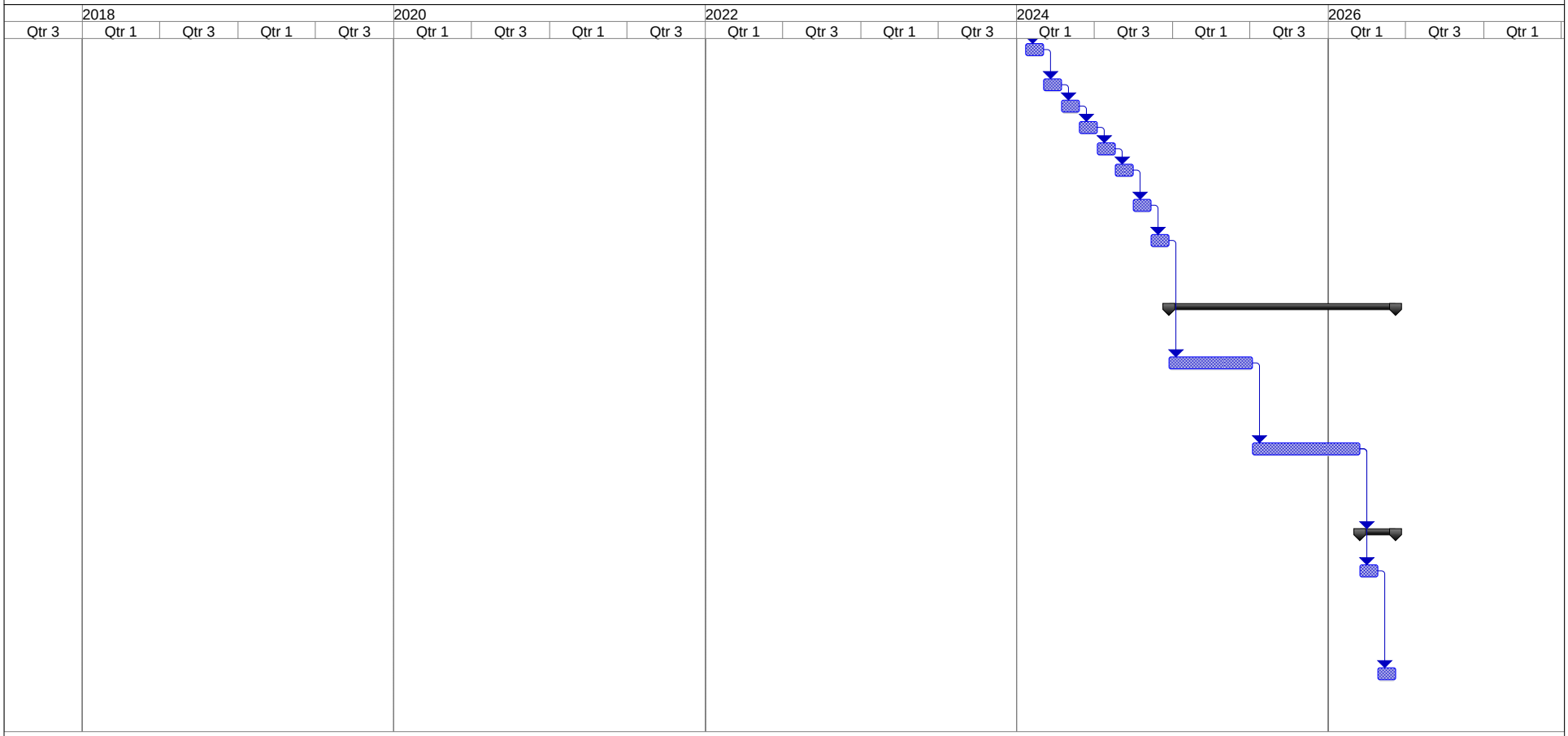
División	Hito externo	Manual Task	Finish-only
Hito	Inactive Task	Duration-only	Progreso
Resumen	Inactive Task	Manual Summary Rollup	Fecha límite
Resumen del proyecto	Inactive Milestone	Manual Summary	

GRUPO REGIONAL CAR/SAM

PROYECTO F1: MEJORAS A LA CERTIFICACIÓN DE AERÓDROMOS



Proyecto: CRPP02 - NEXXAPNa G
Fecha: Mon 01/07/13

Tarea	Tareas externas	Inactive Summary	Start-only
División	Hito externo	Manual Task	Finish-only
Hito	Inactive Task	Duration-only	Progreso
Resumen	Inactive Task	Manual Summary Rollup	Fecha límite
Resumen del proyecto	Inactive Milestone	Manual Summary	

APPENDIX B

PROJECT ON IMPROVE RUNWAY SAFETY IN THE CAR REGION

CAR Region	**PROJECT DESCRIPTION (DP)**	**DP N° F3**	
Programme	**Title of the Project**	**Start**	**End**
Aerodromes (ICAO Programme Coordinator: Jaime Calderon)	Improve runway safety **Project coordinator: George Legarreta (USA)** **Experts contributing to the project: None**	October 2011	December 2015
Objective	The objective of the project is to examine aerodromes in the CAR Region to verify Annex 14 compliance mainly on the provision of markings, signage, lighting, runway strips and runway end safety areas in order to reduce the number of runway incursions and excursions related events. In addition the Project will provide guidelines to aerodrome operations personnel, to avoid and reduce the number of related incidents and provide mitigation measures.		
Scope	The runway safety project is aimed at aerodromes rather than at factors related to air traffic control (ATC). This project has three parts including: mitigation actions for runway incursions (RI), runway excursions (RE) and runway strip levelling, as well as the runway end safety area (RESA). These 3 sections are interrelated, taking into account the phase before landing on the runway, the runway landing operation, and runway excursion.		
Metrics	• Number of aerodromes certified • Reduce the number of reported deficiencies in the GANDD • Number of events regarding runway incursions and excursions.		
Strategy	For the purpose of the project implementation, the following three stages are considered: • Stage 1: Focuses on an inventory of each taxiway into the runway, the geometry of the taxiway into the runway, as well as markings, signs and lighting at the taxi-holding position (stop bars, runway safety lights), and the location of the runway holding position. This part also includes daily inspections of the movement area at the taxiway entry points, markings, signs, and lighting. • Stage 2: Focuses on actions to mitigate runway excursions by ensuring good runway surface conditions, avoiding contamination, and replacing inoperative runway lights, as well as through daily inspections. One of the main problems in runway excursions is the accumulation of rubber under wet runway surface conditions. In this regard, the project will provide guidance material that includes procedures for identifying excursions due to rubber accumulation and for its removal. • Stage 3: Focuses on actions to mitigate damage caused to aircraft exiting the runway, through provision and compliance with a levelled runway strip portion, and provision of runway end safety areas (RESA) in accordance with Annex 14, Vol. 1. In order to determine if facilities meet the standards, the GANDD will be used to gather information on specific deficiencies related to the runway strip and the RESA. The GANDD will enable grouping in deficiency type and, based on that, definition of action plans. For RESAs that are insufficient and that cannot be corrected, the project will provide guidance material on the use of declared distances and possible placement of EMAS. All tasks are carried out between the project coordinator and programme coordinator respectively. There is no support by States experts.		

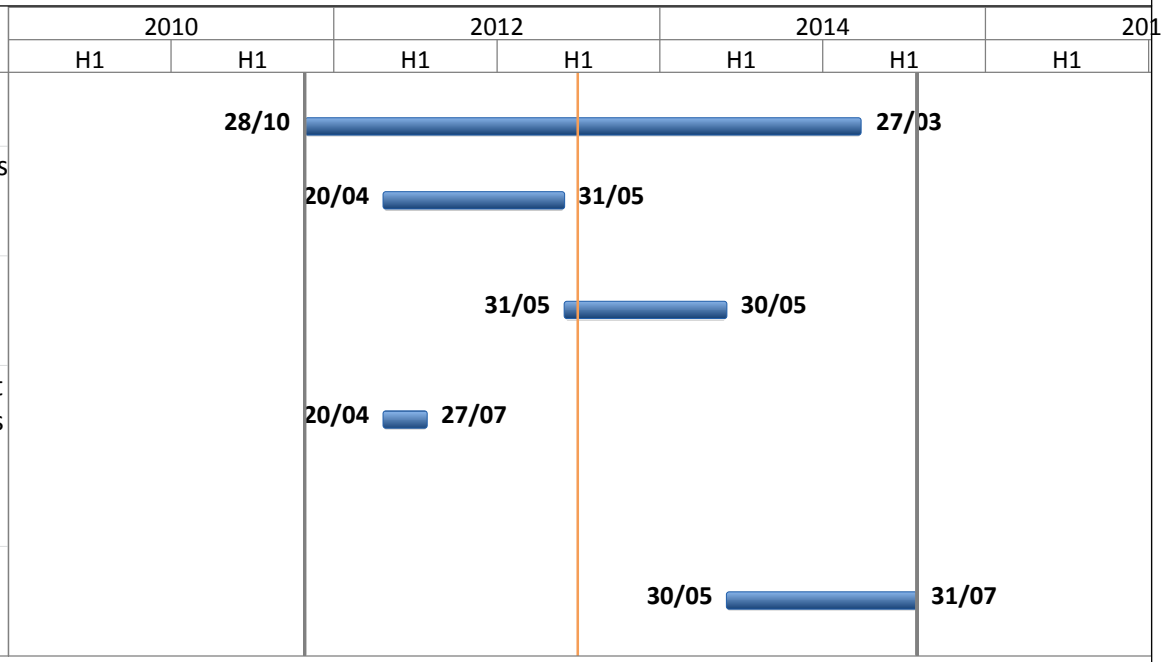
	Communication between project coordinator and the programme coordinators are done through teleconference and the Internet.
Goals	With this project it is expected to assist States in their main implementation goals as follows: • Achieve 75% of aerodrome certification in the CAR Region. • Diminish 75% of the GANDD reported deficiencies in the CAR Region.
Rationale	• Some States in the CAR Region have implemented best practices to avoid runway incursions however there is a high ratio of noncompliance with visual aids, lighting, runway strips and RESAs among others. • There is lack of best practices for mitigating runway excursions; the project will provide guidelines on mitigating measures. • There is a high rate of runway excursions, and the establishment of runway safety teams (RSTs) is deemed essential. • With the project it is expected from the airport operators compliance with Annex 14 and to bring together all involved in aerodrome operations and service providers in order to take actions for improving runway safety. This project contributes to the implementation of PFF CAR 07 of the CAR Performance-Based Air Navigation Plan (RPBANIP)
Related projects	The following project was defined in the last meeting of the AGA/AOP/SG/8, and is related to the project described in this DP: • Aerodrome certification

Project Deliverables	**Relationship with the regional performance-based plan (PFF)**	**Responsible**	**Status of Implementation** [1]	**Date of Delivery**	**Comments**
Development of a formulaire to carry out an inventory of each taxiway entering onto the runway, including the geometry of the taxiway entering onto the runway, as well as markings, signage, and lighting of the taxi-holding position (stop bars, runway safety lights), and the location of the runway-holding position.	PFF CAR 07	George Legarreta		December 2013	Activities were initiated and will extend to December 2013. • The formulaire was developed and circulated to States on 5 July 2012 (EMX0375), having received approximately 15% of the aerodromes included in the ANP. • During the workshop planned for 9-12 July 2013 the final results of the survey will be presented and will require participants to provide information.

Project Deliverables	Relationship with the regional performance -based plan (PFF)	Responsible	Status of Implementation [1]	Date of Delivery	Comments
Implementation of mitigating actions for runway excursions by providing good runway surface conditions, avoiding surface contamination, and provide changes and the recommended longitudinal slopes, repainting faded markings, and replacement of inoperative runway lights, as well as carrying out daily inspections.	PFF CAR 07	George Legarreta		July 2014	The project will provide guidance material including procedures for identifying runway excursions due to rubber buildup and removal. These topics will be discussed during the workshop planned for July 2013.
Implementation of mitigating actions due to damage caused to aircraft overrunning the runway through compliance with the graded portion of the runway strip and runway end safety area (RESA) with Annex 14, Vol. 1. The GANDD will enable grouping by type of deficiency and thus determining action plans.	PFF CAR 07	George Legarreta		December 2015	For insufficient RESAs and cannot be fully adjusted, the project will provide guidance material on the use of the declared distances and the installation of the EMAS.
Resources needed	Designation of experts by States for the execution of some of the deliverables				

CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP / GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION (GREPECAS)
PROJECT/PROYECTO F3
IMPROVE RUNWAY SAFETY / MEJORAR LA SEGURIDAD OPERACIONAL EN PISTA

ID	Task Name
1	PROJECT: IMPROVE RUNWAY SAFETY / PROYECTO: MEJORAR LA SEGURIDAD OPERACIONAL EN PISTA
2	a) Mitigating actions to avoid runway incursion / Acciones de mitigación para evitar las incursiones en pista
3	b) Mitigating actions to avoid runway excursion / Acciones de mitigación para evitar las excursiones de pista
4	Surveys on current signalling, sign placing, etc. to prevent aerodrome runway incursions and excursions / Encuestas para conocer estado actual de la señalización, colocación de letreros, etc. para prevenir incursiones y excursiones de pista en aeródromos
5	c) Evaluate current runway strip and RESA conditions / Evaluar las condiciones actuales de la franja de pista y RESA



APPENDIX C

PROJECT ON AERODROME CERTIFICATION

SAM Region	**PROJECT DESCRIPTION (DP)**	**DP N° F1**	
Programme	**Title of the Project**	**Start**	**End**
Aerodromes *(ICAO programme coordinator: Lia Ricalde)*	Aerodrome Certification *Project coordinator:* *Carlos Garcia Pepe (Uruguay)* *Experts contributing to the project:* *Vicente Uribe (AEROCIVIL - Colombia)* *Augusto Diaz (DGAC – Ecuador)* *Adolfo Medina (DGAC – Perú)*	2010	2015
Objective	Aerodrome certification will enable safer and more efficient operations through compliance with ICAO SARPs to ensure an adequate operational aerodrome management.		
Scope	Regulations and documentation in support of the implementation of ICAO SARPs with a view to the certification of aerodromes in the Region: • Harmonisation of the Latin American Regulations on Aerodromes (AGA LARs) with State aerodrome regulations. • Train regional aerodrome inspectors based on the Aerodrome Inspectors Manual (MIAGA). • Implementation of guides for internal auditing of aerodromes. • Certification of aerodromes at regional level and certification validated by the AGA LARs for aerodromes previously certified by States. • Implementation of safety oversight guides for aerodromes.		
Metrics	• Percentage of certified aerodromes • Number of trained inspectors • Percentage of certified aerodromes validated by the AGA LAR		

Strategy	• Develop the Latin American Regulations for Aerodromes (AGA LAR) • Develop the Aerodrome Inspector Manual (MIAGA) • Harmonise State regulations with the AGA LAR • Train aerodrome inspectors of the Region with the MIAGA • Establish an aerodrome internal audit process for operators, based on the SMS • Validate the existing aerodrome certification with the AGA LAR • Certification process oversight All tasks will be carried out by experts nominated by CAR States and organisations, under the leadership of the project coordinator. Communication amongst project members and between the project and programme coordinators shall be via teleconference and the Internet. Upon completion of the studies, the results will be sent to the ICAO programme coordinator as a final consolidated document for its analysis, revision, and approval, and for submission to the GREPECAS PPRC.
Rationale	• Airport certification difficulties in the Region are mainly due to the fact that existing airports were built before the issuance of the ICAO SARPs that establish certification requirements. • The new commercial aircraft fleet has more requirements than the critical aircraft that were used at the time of the original design. • Difficulties in the adjustment and updating of State aeronautical legislation related to aerodromes to facilitate aerodrome certification. • Lack of trained personnel within State civil aviation authorities to conduct airport certification and oversight.
Related projects	The following projects were defined at the last meeting of the AGA/AOP Subgroup (AGA/AOP/SG/8), and are related to the project described in this DP: • Safety assessment for aerodromes with non-conformities • Improvement of runway safety • Quality and availability of aeronautical data • Improvement of aerodrome physical and operational characteristics

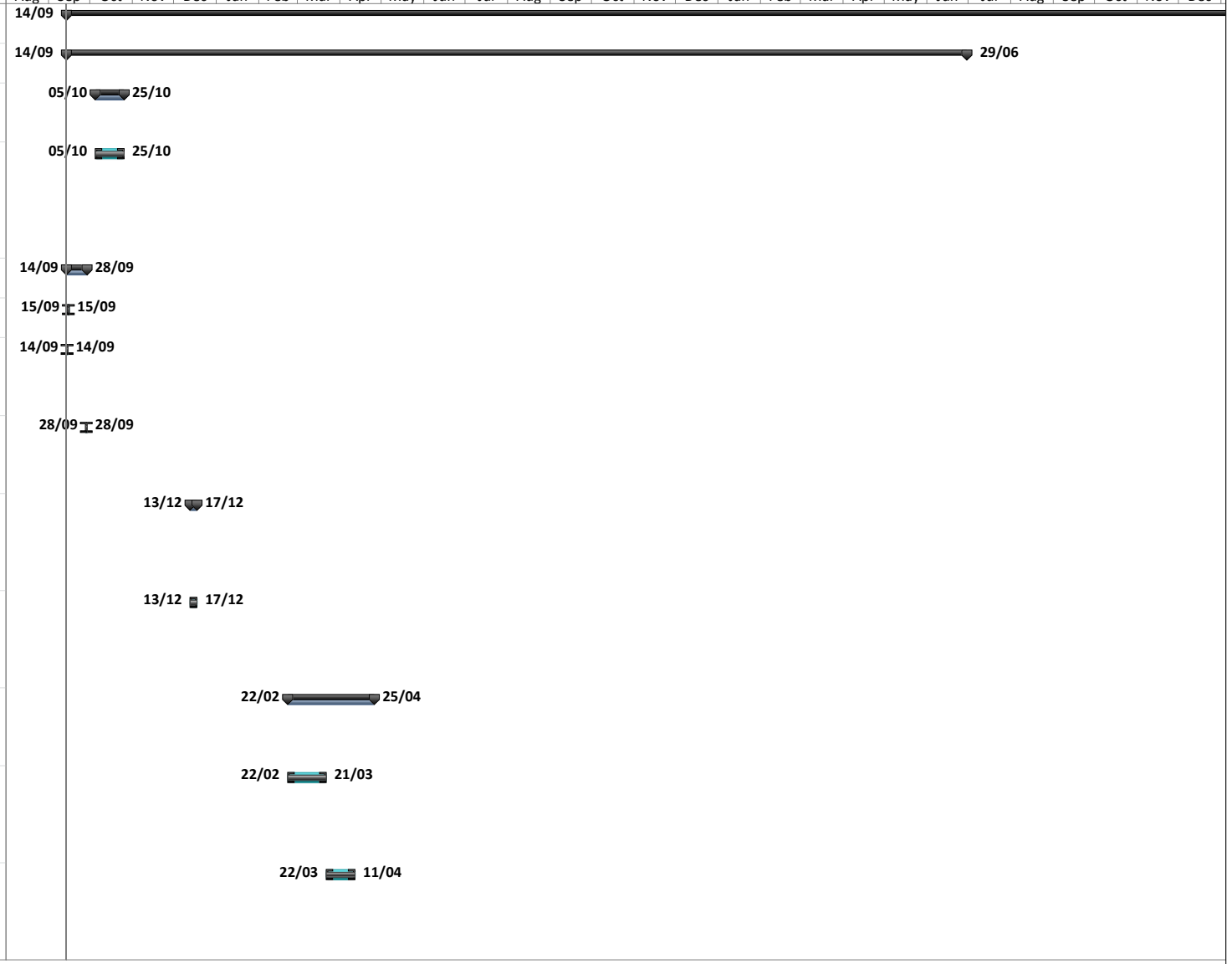
Project Deliverables	Relationship with the regional performance-based plan (PFF)	Responsible Party	Status of Implementation [1]	Date of Delivery	Comments
AGA LAR set	PFF SAM AGA 02	Carlos Garcia Pepe	**100%**	September 2013	The texts of the AGA LAR set (LAR 139, LAR 153, and LAR 154) have been approved by the General Board and are in revision phase to include the last amendment to Annex 14.
Development of the MIAGA	PFF SAM AGA 02	Carlos Garcia Pepe	**100%**	June 2012	The AGA Inspector Manual (MIAGA) has been completed.
Training programme for aerodrome inspectors	PFF SAM AGA 02	Adolfo Medina	**75%**	2014	The aerodrome inspector workshop – basic (Phase I) was held on 14-18 February in Panama. The first course for government aerodrome inspectors (GSI AGA) (Phase II and II) was held from for 2 to 13 July 2012, including the AGA LAR set and the MIAGA. Subsequently, on request of Aerocivil, a second GSI AGA short course was carried out in Colombia. A total of 35 regulators were trained as aerodrome inspectors. For July 2013, a Seminar on LAR AGA set Introduction has been scheduled in Medellin, Colombia and in September 2013 a second GSI AGA course with duration of three weeds in Lima. Trained inspectors will receive OJT (Phase IV) in 2014, prior training in audit techniques.
Harmonisation of the AGA LARs	PFF SAM AGA 02	States - Regional System	**10%**	2015	It is expected that the harmonisation between the States and the AGA LARs will be carried out in accordance with the timetable approved by the General Board. Although some States have started harmonization process.

[1] *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*

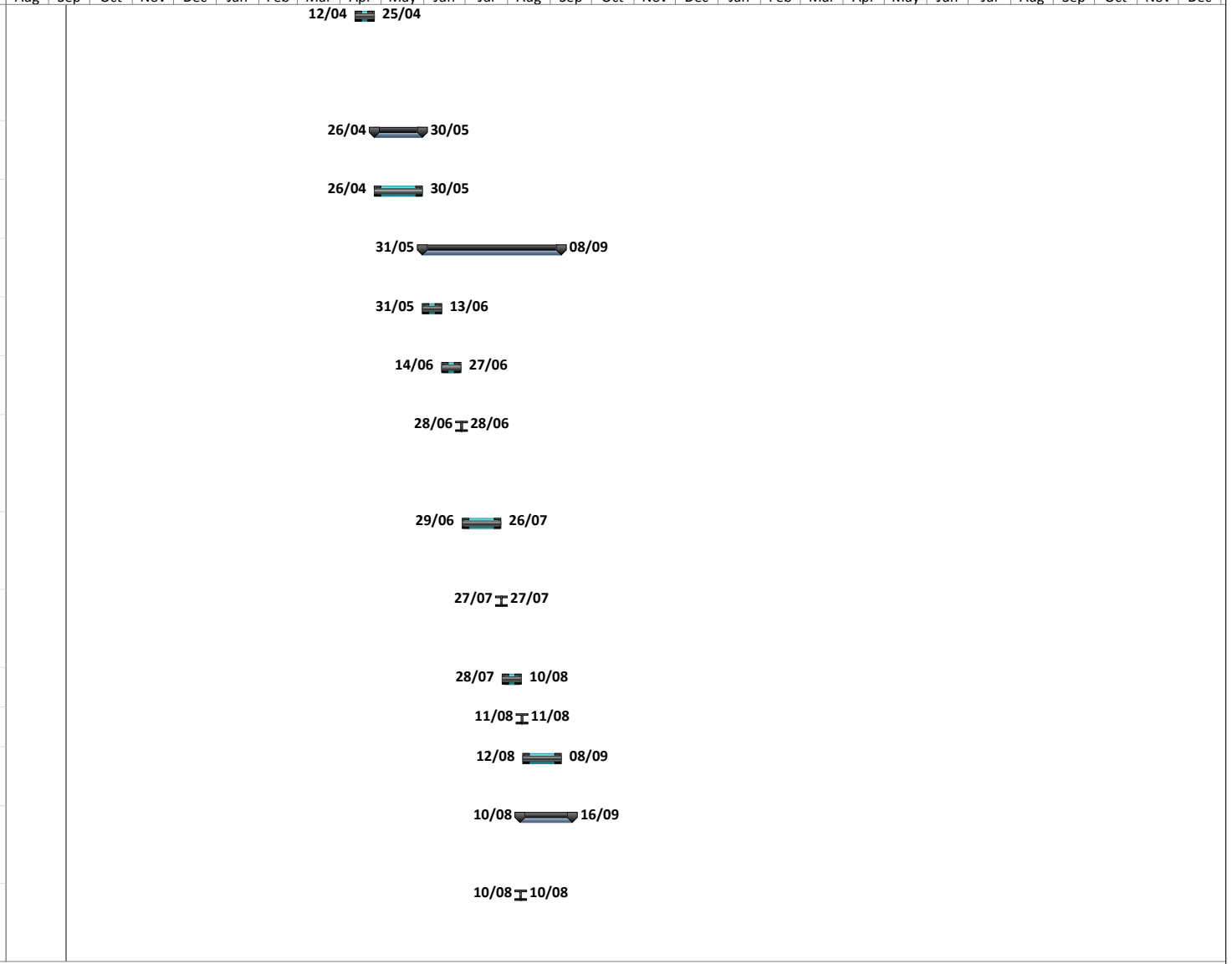
Project Deliverables	Relationship with the regional performance-based plan (PFF)	Responsible Party	Status of Implementation [1]	Date of Delivery	Comments
Guide on aerodrome internal audits	PFF SAM AGA 02	Augusto Diaz		2013	Prior to certification, airport operators must conduct internal audits. A guide will be developed to assist airport operators with self-inspections.
Regional aerodrome certification programme	PFF SAM AGA 01, 03, 04 y 05	TBD		2015	Once the harmonisation process is underway and related projects are completed, airports in the Region may be certified based on the AGA LARs.
Validation of aerodrome certificates based on the AGA LARs	PFF SAM AGA 01, 03, 04 y 05	TBD		2015	Aerodromes certified under the State regulations may apply for validation of their aerodrome certificate based on the AGA LARs.
Guide on certification process oversight	PFF SAM AGA 01, 03, 04, and 05	GREPECAS		2015	
Resources needed	Designation of experts for the execution of some of the deliverables; financial resources for organising training courses, certification trials, and meetings				

GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP
PROYECTO CERTIFICACIÓN DE AERÓDROMOS / AERODROMES CERTIFICATION PROJECT

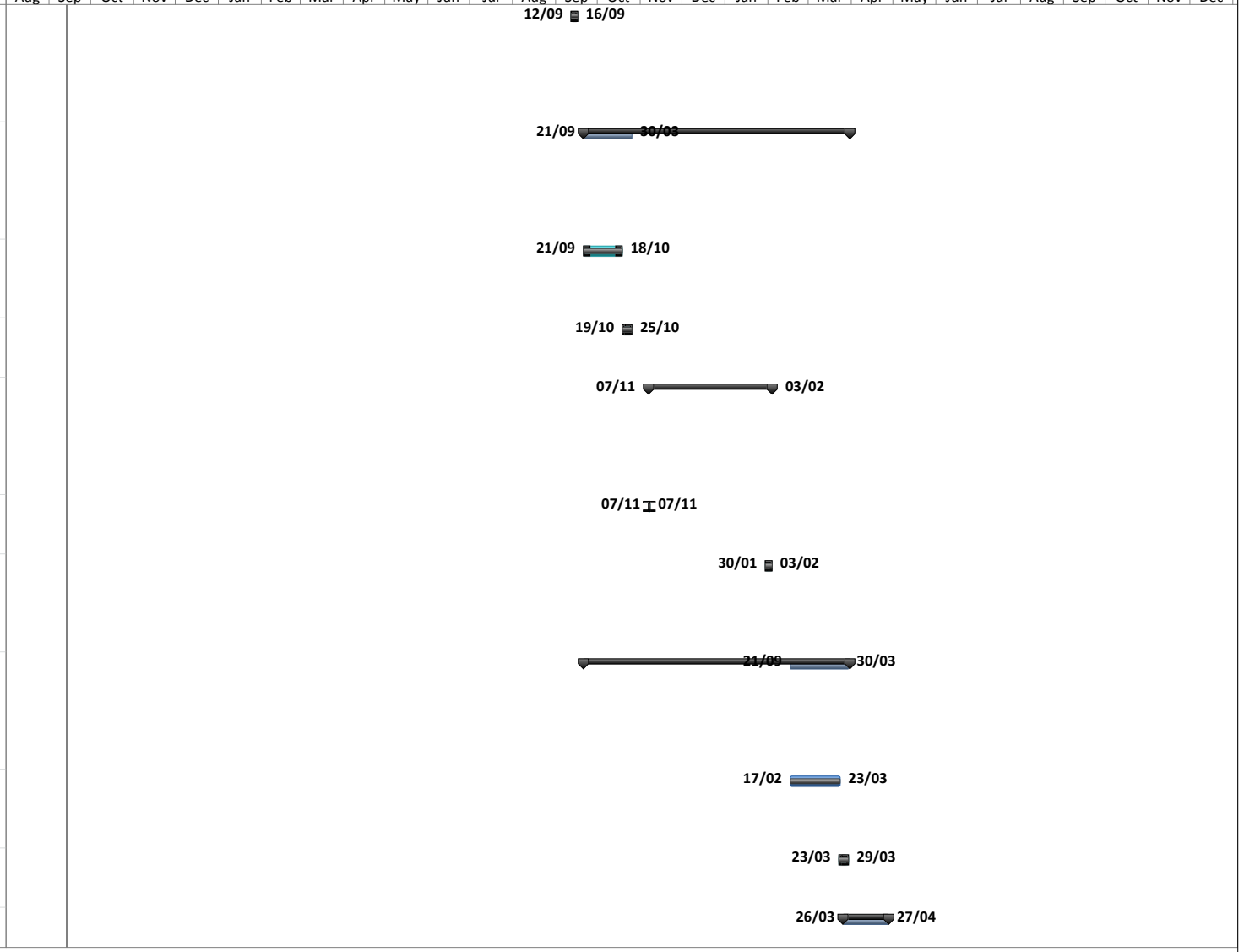
ID	Task Name	Duration
1	**PROYECTO CERTIFICACIÓN DE AERÓDROMOS / AERODROMES CERTIFICATION PROJECT**	**1194 days**
2	**Conjunto LAR AGA y MIAGA / LAR AGA Set & MIAGA**	**469 days**
3	**Panel de Expertos de Aeródromos y Ayudas Terrestres (PEAGA) / AGA Expert Panel (PEAGA)**	**15 days**
4	Solicitar Estados miembros del SRVSOP, designar especialistas para el Panel de Expertos de Aeródromos y Ayudas Terrestres (PEAGA) / Request States SVRSOP members to designated experts for the AGA Panel (PEAGA)	15 days
5	**Comité Técnico (CT) del SRVSOP AGA / Technical Committee (TC) AGA SVRSOP**	**11 days**
6	Miembros CT del SRVSOP AGA / TC members AGA SVRSOP	1 day
7	Solicitar/Contratar Especialista para desarrollar estructura del LAR AGA / Request espert to develop LAR AGA structure	1 day
8	Aceptación del Estado/Especialista para desarrollar estructura del LAR AGA / States/expert acceptance to develop LAR AGA structure	1 day
9	**Desarrollo por parte del Comité Técnico de la estructura de cada LAR, incluyendo sus capítulos y secciones / Development by the CT the structure for each LAR, including chapters & sections**	**5 days**
10	Desarrollar la estructura LAR AGA y elaborar tablas de referencias cruzadas del LAR AGA (Anexo 14) / Develop LAR AGA structure & make cross reference tables for LAR AGA (Annex 14)	5 days
11	**Consulta de la estructura de cada LAR al Panel de Expertos respectivo – Primera ronda de consulta / First round of consultations**	**45 days**
12	Circular la estructura al Comité Técnico (CT) y a los miembros del PEAGA - Primera ronda de consulta / Circulate thestructure among the CT & PEAGA members - First round of consultation	20 days
13	Incorporar oportunidades de mejora a la estructura en base a los comentarios del CT y PEAGA / Incorporate the oportunity for improvement of the structure based on the CT & PEAGA comments	15 days



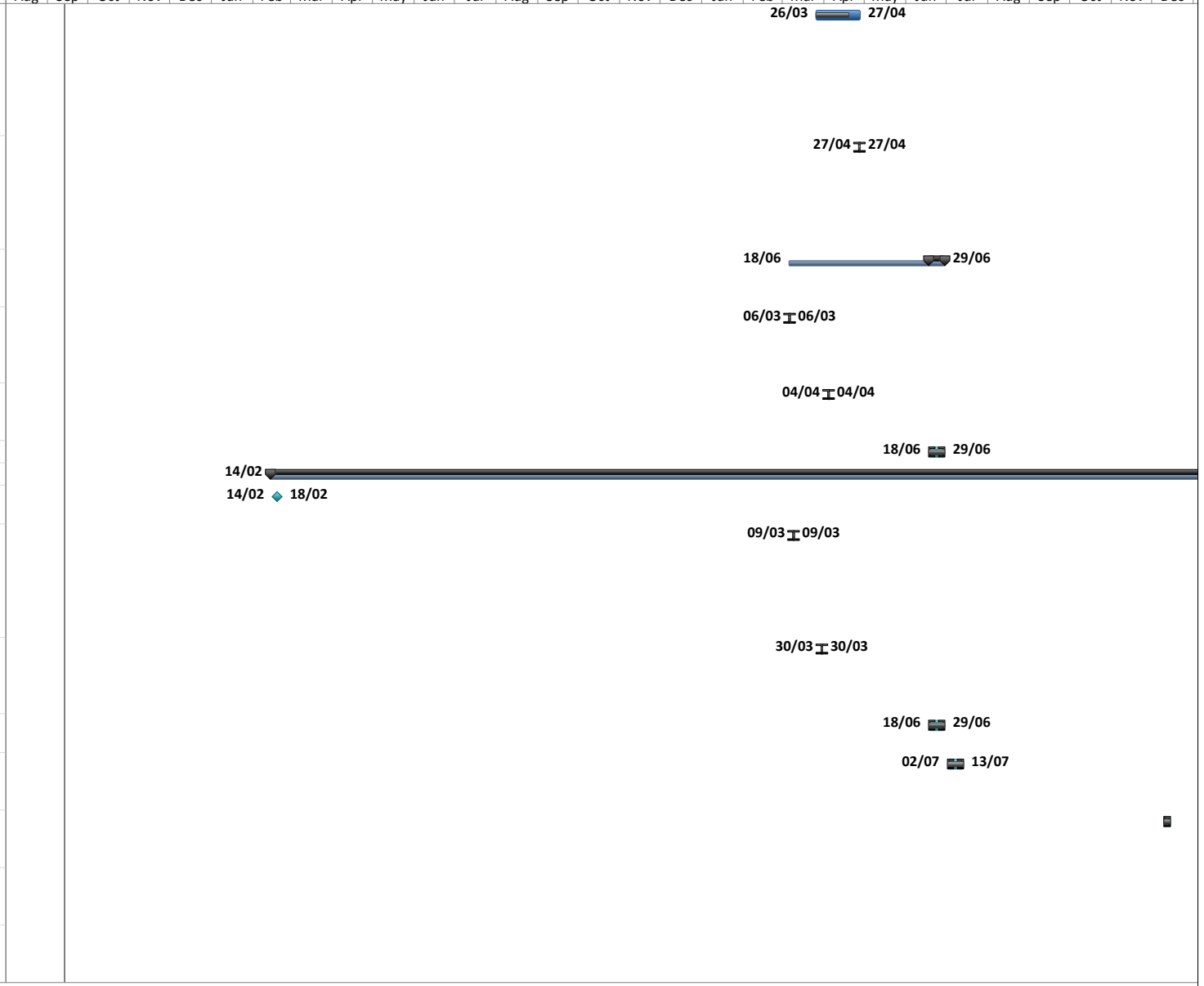
ID	Task Name	Duration
14	Circular el documento que registre los comentarios y respuestas a los miembros del PEAGA, para su pronunciamiento / Circulate the document with the comments & responses from the PEAGA members	10 days
15	**Desarrollo del texto completo de cada LAR del conjunto LAR AGA / Development of the text for each LAR from the LAR AGA set**	**25 days**
16	Desarrollar borrador del texto del conjunto LAR AGA / Develop the draft text from the LAR AGA set	25 days
17	**Consulta del texto de cada LAR al Panel de Expertos respectivo – Segunda ronda de consulta / Second round of consultation**	**73 days**
18	Revisión del borrador del texto del conjunto LAR AGA / Revision of the draft text of the LAR AGA set	10 days
19	Desarrollo de las tareas para cada miembro del PEAGA / Development of the task for every member of PEAGA	10 days
20	Circulación de tareas a los especialistas del PEAGA para segunda ronda de consulta / Circulate the task assigned to the PEAGA experts for the second round of consultation	1 day
21	Desarrollo de las tareas por parte de cada experto del PEAGA – Segunda ronda de consulta / Second round of consultation	20 days
22	Presentación de comentarios a través de Notas de Estudio (NE) al Comité Técnico / Presentation of comments through WP to TC	1 day
23	Revisión de las NE por el Comité Técnico / Revision of WP for TC	10 days
24	Publicación en la Web de las NE / Publication of the WP on the web	1 day
25	Revisión de las NE entre el Comité Técnico y los miembros del PEAGA / Revision of the WP by the CT & PEAGA	20 days
26	**Reunión del Panel de Expertos para la revisión del conjunto LAR AGA (RPEAGA/1) / Experts Panel Meeting for the revision of the LAR AGA set (RPEAGA/1)**	**28 days**
27	Convocatoria a la Primera Reunión del Panel de Expertos de Aeródromos (RPEAGA/1) / Call for the PEAGA First Meeting (RPEAGA/1)	1 day



ID	Task Name	Duration
28	Primera Reunión del Panel de Expertos de Aeródromos (RPEAGA/1). Presentación de NE y análisis y aceptación del LAR AGA / First PEAGA Meeting (RPEAGA/1) Presentation of the WP, analysis & acceptance of LAR AGA	5 days
29	**Aceptación del texto completo del LAR 139 por las Autoridades de Aviación Civil (AAC) de los Estados del SRVSOP – Tercera ronda de consulta / Acceptance of the compelte text LAR 139 by the SRVSOP member states CAA - Third consultation round**	**138 days**
30	Circular el LAR 139 para aceptación de las AAC - Tercera ronda de consulta / LAR 139 circulation for CAA aceptance - Third round of consultation	20 days
31	Evaluación de los comentarios de las AAC por parte del CT / CAA comments evaluation by the TC	5 days
32	**Segunda Reunión del Panel de Expertos para la revisión de los LAR 153, LAR 154 y comentarios al LAR 139, (RPEAGA/2) / Experts Panel meeting for the evaluation of LAR 153, LAR 154 & comments to LAR 139 (RPEAGA/2)**	**65 days**
33	Convocatoria a la Segunda Reunión del Panel de Expertos de Aeródromos (RPEAGA/2) / Call to RPEAGA/2	1 day
34	Segunda Reunión del Panel de Expertos de Aeródromos (RPEAGA/2). Presentación de NE y análisis y aceptación del conjunto LAR AGA / RPEAGA/2. WP presentation, analysis and acceptance of LAR AGA set	5 days
35	**Aceptación del texto completo del LAR 139 modificado, LAR 153 y LAR 154 por la AAC de los Estados del SRVSOP – Tercera ronda de consulta / Acceptance of complete text - modified LAR 139, LAR 153 & LAR 154 by the CAA - Third round of consultation**	**138 days**
36	Circular el LAR 139, LAR 153 y LAR 154 para aceptación de las AAC - Tercera ronda de consulta / Circulation of LAR 139, LAR 153 & LAR 154 for CAA acceptance - Third	26 days
37	Evaluación de los comentarios de las AAC por parte del CT / CAA comments evaluation by the TC	5 days
38	**Aprobación del Conjunto LAR AGA / LAR AGA Set approval**	**25 days**

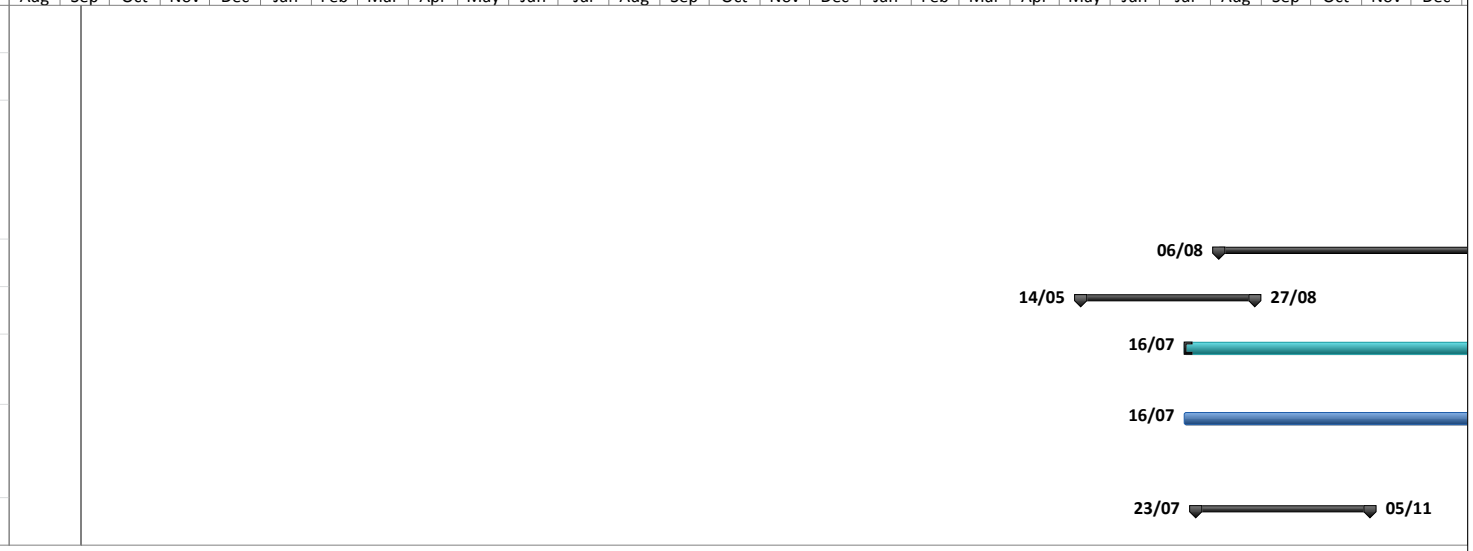


ID	Task Name	Duration
39	Presentación del LAR AGA y la estrategia de armonización y/o adopción a la JG24 para aprobación de los Estados por el metodo Expreso / LAR AGA presentation and armonization / adoption strategy to the JG24 for States approval using the express methodology	25 days
40	Envío a los Estados del LAR AGA y estrategia de armonización y/o adopción para que den inicio a dicha estrategia / LAR AGA & armonization/adoption strategy delivery to the States to initiate the process	1 day
41	**Desarrollo del Manual de Inspector de Aerodromos (MIAGA) / Development of the Aerodrome Inspector Manual (MIAGA)**	**10 days**
42	Solicitar Especialista para desarrollar el Manual del Inspector de Aerodromos (MIAGA) / Request expert to develop the Aerodrome Inspector Manual (MIAGA)	1 day
43	Aceptación del Estado/Especialista para desarrollar el MIAGA / Acceptance by the State/expert the development of the	1 day
44	Desarrollar el MIAGA / MIAGA development	10 days
45	**Capacitación / Training**	**533 days**
46	Taller de Inspector de Aerodromos - Fase I / Aerodrome Inspector Workshop - Phase I	0 days
47	Solicitar Especialista para desarrollar el Curso de Inspector Gubernamental de Aerodromos (GSIAGA) - Fase II & III / Request expert for the development of the the Aerodrome Inspector Course - Phase II & III (GSI AGA)	1 day
48	Aceptación del Estado/Especialista para desarrollar el Curso GSI AGA / Acceptance by the State/Expert to develop the GSI AGA course	1 day
49	Desarrollo del curso GSI AGA / Development of the GSI AGA course	10 days
50	Primer Curso de Inspector Gubernamental de Aerodromos - Fase II y III / GSI AGA Course - Phase II & III, Lima - Peru	10 days
51	Curso corto de Inspector Gubernamental de Aerodromos - Fase II y III / GSI AGA Course - Phase II & III, Barranquilla - Colombia	5 days
52	Seminario de Introduccion al conjunto LAR AGA/Seminar on Introduction to LAR AGA set, Medellin - Colombia	5 days
53	Segundo curso de Inspector Gubernamental de Aerodromos - Fase II y III / GSI AGA Course - Phase II & III, Lima - Peru	15 days



GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP
PROYECTO CERTIFICACIÓN DE AERÓDROMOS / AERODROMES CERTIFICATION PROJECT

ID	Task Name	Duration
54	**Ensayos de auditoría de certificación / Certification audit trials (OJT)**	**18 days**
55	Taller Tecnicas de Auditoria/Audit technics workshop. Lima - Peru	5 days
56	Finalizada la capacitación de los expertos, el CT procederá a programar los ensayos de auditoría de certificación de aerodromos (Fase IV OJT) / Once training is completed aerodrome certification audits will scheduled (Phase IV OJT)	3 days
57	**Armonización o adopción / Armonization or adoption**	**700 days**
59	**Guía de Auditorías internas para Aeródromos / Internal audit guidelines for aerodromes**	**76 days**
64	**Programa Regional de Certificación de Aeródromos / Regional aerodrome certification programme**	**253 days**
65	**Validación de Certificación de Aeródromos existente con el conjunto LAR AGA / Validation of existing aerodrome certification with LAR AGA set**	**253 days**
66	**Guía de vigilancia del proceso de certificación / Guideline for certification process surveillance**	**76 days**



APPENDIX D

PROJECT ON SAFETY ASSESSMENT FOR AERODROMES WITH NON-CONFORMITIES

SAM Region	**PROJECT DESCRIPTION (DP)**		**DP N° F2**	
Programme	**Title of the Project**		**Start**	**End**
Aerodromes *(ICAO programme coordinator: Lia Ricalde)*	Safety assessment of aerodromes with non-conformities *Project coordinator:* *Experts contributing to the project:*	*Virgilio de Matos Santos Castelo Branco (ANAC - Brazil)* *Carlos Garcia Pepe (DINACIA - Uruguay)* *Marco Pecanha (DECEA – Brazil)*	2010	2015
Objective	Certification of aerodromes that do not comply with ICAO SARPs, through an aerodrome safety assessment			
Scope	Develop regulations and documentation for the safety assessment of those conditions that do not enable the aerodrome to comply with ICAO SARPs, with a view to attaining certification: • Aerodromes with non-conformities • Guiding manual for the certification of aerodromes with non-conformities • Aerodromes certified with non-conformities			
Metrics	• Number of aerodrome inspectors training to certify aerodromes with non-conformities • Number of certified aerodromes with deviations			
Strategy	• Identify the most common non-conformities in the physical and operational characteristics of the airports in the Region • Develop a procedure for the certification of aerodromes with deviations that includes guidance on the assessment of non-conformities • Train aerodrome inspectors in the assessment of aerodromes with non-conformities • Implement the procedure for certifying with deviations • Monitor the implementation of the procedure All tasks will be carried out by experts nominated by CAR States and organisations, under the leadership of the project coordinator. Communication amongst project members and between the project and programme coordinators shall be via teleconference and the Internet. Upon completion of the studies, the results will be sent to the ICAO programme coordinator as a final consolidated document for its analysis, revision, and approval, and for submission to the GREPECAS PPRC.			

Rationale	• The difficulties in airport certification at regional level at mainly because most of the existing airports were built before ICAO SARPs on certification requirements were issued. • The new commercial aircraft fleet has greater requirements than the critical aircraft used at the time of the original design • Difficulties for the safety and risk assessment required for each non-conformity • Lack of trained personnel within State civil aviation authorities for the conduction of the corresponding safety assessment
Related projects	The following projects were defined at the last meeting of the AGA/AOP Subgroup (AGA/AOP/SG/8), and are related to the project described in this DP: • Aerodrome certification • Improvement of runway safety • Quality and availability of aeronautical data • Improvements to aerodrome physical and operational characteristics

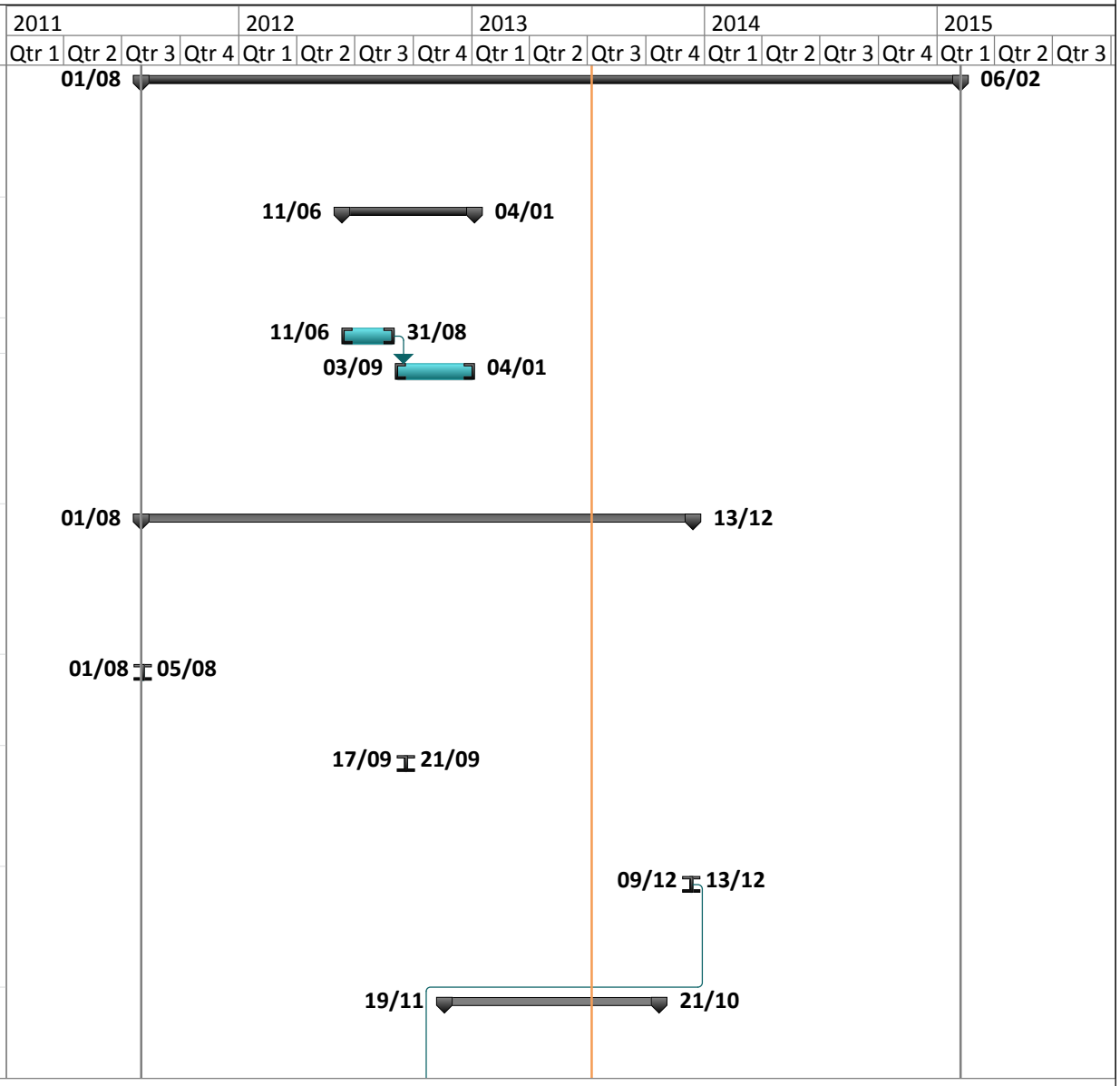
Project Deliverables	Relationship with the Regional Performance-based Plan (PFF) and ASBU Modules	Responsible Party	Status of Implementation[1]	Date of Delivery	Comments
List of the most common non-conformities in the Region	PFF SAM AGA 03 and ANRF B0 ACDM	Virgilio de Matos Santos Castelo Branco		December 2012	Conduct a survey amongst the States, requesting information on the most common non-conformities that prevent the certification of international aerodromes
Guidance manual on the certification of aerodromes with non-conformities	PFF SAM AGA 03 and ANRF B0 ACDM	AGA RO		2013	The guidance manual will be developed based on the information retrieved from the questionnaire and will include available safety assessment tools for the most common non-conformities in the Region and what cases qualify for assessment for the purpose of obtaining the certification with deviations

[1] *Grey* *Tasks 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) and ASBU Modules	Responsible Party	Status of Implementation[1]	Date of Delivery	Comments
Training programme for inspectors on the certification of aerodromes with non-conformities	PFF SAM AGA 01, 03, 04, 05 and ANRF B0 ACDM	AGA RO	**100%**	2013	Aerodrome inspectors have been trained in 2011 in an Aeronautical Studies workshop carried out in Lima on physical characteristics, as well in 2012 an Aeronautical Studies – Obstacle workshop was carried out in Colombia. In 2013 SRVSOP has started to offer workshops on Risk Assessment to interested States, in this regard, Argentina has requested to conduct a workshop in November 2013 in Buenos Aires.
Timetable for the certification of aerodromes with deviations	PFF SAM AGA 01, 03, 04, 05 and ANRF B0 ACDM	States		2015	Regional certification of previously identified aerodromes with non-conformities
Resources needed	Designation of experts for the execution of some of the deliverables, financial resources for organising training courses, meetings and at least two certification trials for aerodromes with deviations.				

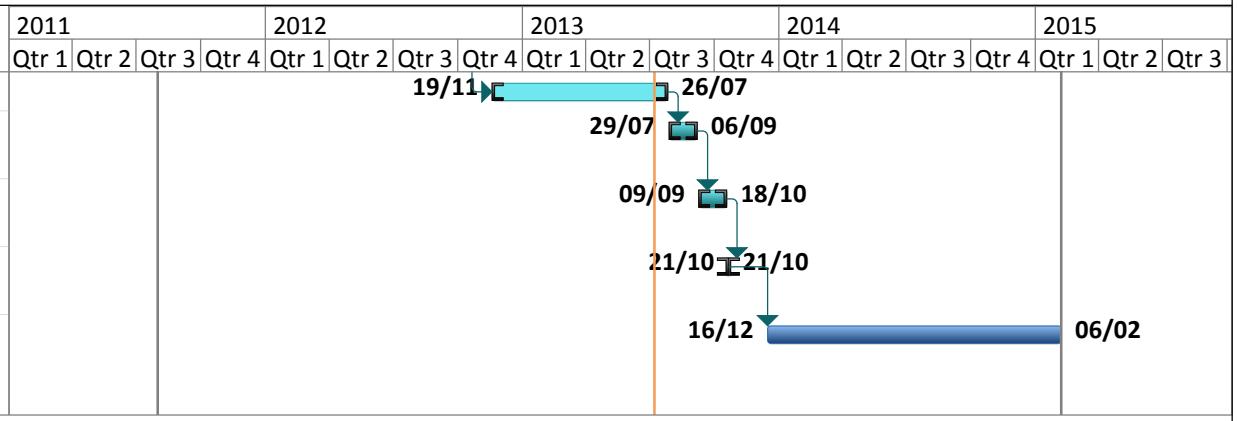
GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)
PROYECTO EVALUACIÓN DE LA SEGURIDAD OPERACIONAL PARA AERÓDROMOS CON NO-CONFORMIDADES/SAFETY ASSESSMENT FOR NON-COMPLIANT AERODROMES PROJECT

ID	Task Name	Duration
1	**PROYECTO EVALUACIÓN DE LA SEGURIDAD OPERACIONAL PARA AERÓDROMOS CON NO-CONFORMIDADES/SAFETY ASSESSMENT FOR NON-COMPLIANT AERODROMES**	**920 days**
2	**Relación de no conformidades mas comunes en los Aerodromos de la Región/List of most common Aerodrome no-compliances in the Region**	**150 days**
3	Encuesta regional / regional survey	60 days
4	Analisis de la encuesta y elaboracion de las no conformidades mas comunes en la region / Analysis of the survey and development of list with most common no compliances in the region	90 days
5	**Programa de capacitación para inspectores para la certificación de aeródromos con no-conformidades/Training programme for inspectors for non-compliant aerodromes certification**	**620 days**
6	Taller de Estudios Aeronauticos - RESA / Aeronautical Studies Workshop - RESA, Lima - Peru	5 days
7	Taller de Estudios Aeronauticos - Obstaculos / Aeronautical Studies Workshop - Obstacles, Bucaramanga - Colombia	5 days
8	Taller para la Evaluacion de la Seguridad Operacional de Aerodromos/Aerodrome safety risk assesment workshop, Buenos Aires - Argentina	5 days
9	**Manual guía para la certificación de aeródromos con no-conformidades/Guidance manual for non-compliant aerodromes**	**241 days**



GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)
PROYECTO EVALUACIÓN DE LA SEGURIDAD OPERACIONAL PARA AERÓDROMOS CON NO-CONFORMIDADES/SAFETY ASSESSMENT FOR NON-COMPLIANT AERODROMES PROJECT

ID	Task Name	Duration
10	Recolectar información /Collect information	180 days
11	Entrega de propuesta de borrador / Delivery of draft proposal	30 days
12	Revision de la propuesta borrador / Review of draft proposal	30 days
13	Entrega documento final / Delivery of final document	1 day
14	**Cronograma de certificación de aeródromos con desviaciones/schedule for cetification with no conformities**	300 days



APPENDIX E

PROJECT ON IMPROVEMENT OF RUNWAY SAFETY

SAM Region	**PROJECT DESCRIPTION (DP)**		**DP N° F3**	
Programme	**Title of the Project**		**Start**	**End**
Aerodromes *(ICAO programme coordinator: Lia Ricalde)*	Improve Runway Safety *Project coordinator:* *Experts contributing to the project:*	*Alfredo Chavez Baca (Peru)* *Hugo Vieira de Vasconcelos (Brazil)*	2011	2015
Objective	Reduce runway incursions/excursions at aerodromes in order to improve runway safety.			
Scope	Regulations and documentation to support the implementation of ICAO SARPs in order to improve runway safety at aerodromes in the Region: • Strategy to prevent and mitigate accidents and incidents due to runway incursions/excursions from the AGA perspective • AGA assistance to aerodrome safety committees (RSTs) in their runway safety tasks • Guides on aerodrome safety oversight			
Metrics	• Percentage of reduction in runway incursions/excursions in the aerodromes of the Region. • Percentage of aerodromes in the Region that have aerodrome safety teams (RSTs).			
Strategy	• In coordination with other bodies engaged in runway safety, analyse runway incursion/excursion statistics and prioritise AGA responsibilities • Establish a work relationship with regional AGA committees: ALACPA (pavement) and CARSAMPAF (wildlife hazard prevention) • Assist aerodrome safety committees (RSTs) in the Region and ensure the participation of the AGA component • Develop a safety management plan to prevent and mitigate runway incursions/excursions based on the analysis mentioned in the previous paragraph • Develop guides on oversight of the implementation of safety management plans in the aerodromes of the Region • Implement the safety management plan All tasks will be carried out by experts nominated by CAR States and organisations, under the leadership of the project coordinator. Communication amongst project members and between the project and programme coordinators shall be via teleconference and the Internet. Upon completion of the studies, the results will be sent to the ICAO programme coordinator as a final consolidated document for its analysis, revision, and approval, and for submission to the GREPECAS PPRC.			

Rationale	• Runway safety is a problem that affects all areas of air navigation • Different bodies are working to improve runway safety from different perspectives. The purpose of this project is to support the existing initiatives and to work in a coordinated manner, contributing form the point of view of AGA • Although there are better practices in SAM States, there is no harmonisation to expedite their implementation in the airports of the Region. The purpose of this project is to develop a strategy to be used by States to reduce runway incursions/excursions in their airports.
Related projects	The five SAM projects defined at GREPECAS AGA/AOP/SG/8 Subgroup meeting are proposed to be reduced to two projects, being the following related to the project described in this DP: • Improved Airport Operations through CDM at airports level (A-CDM)

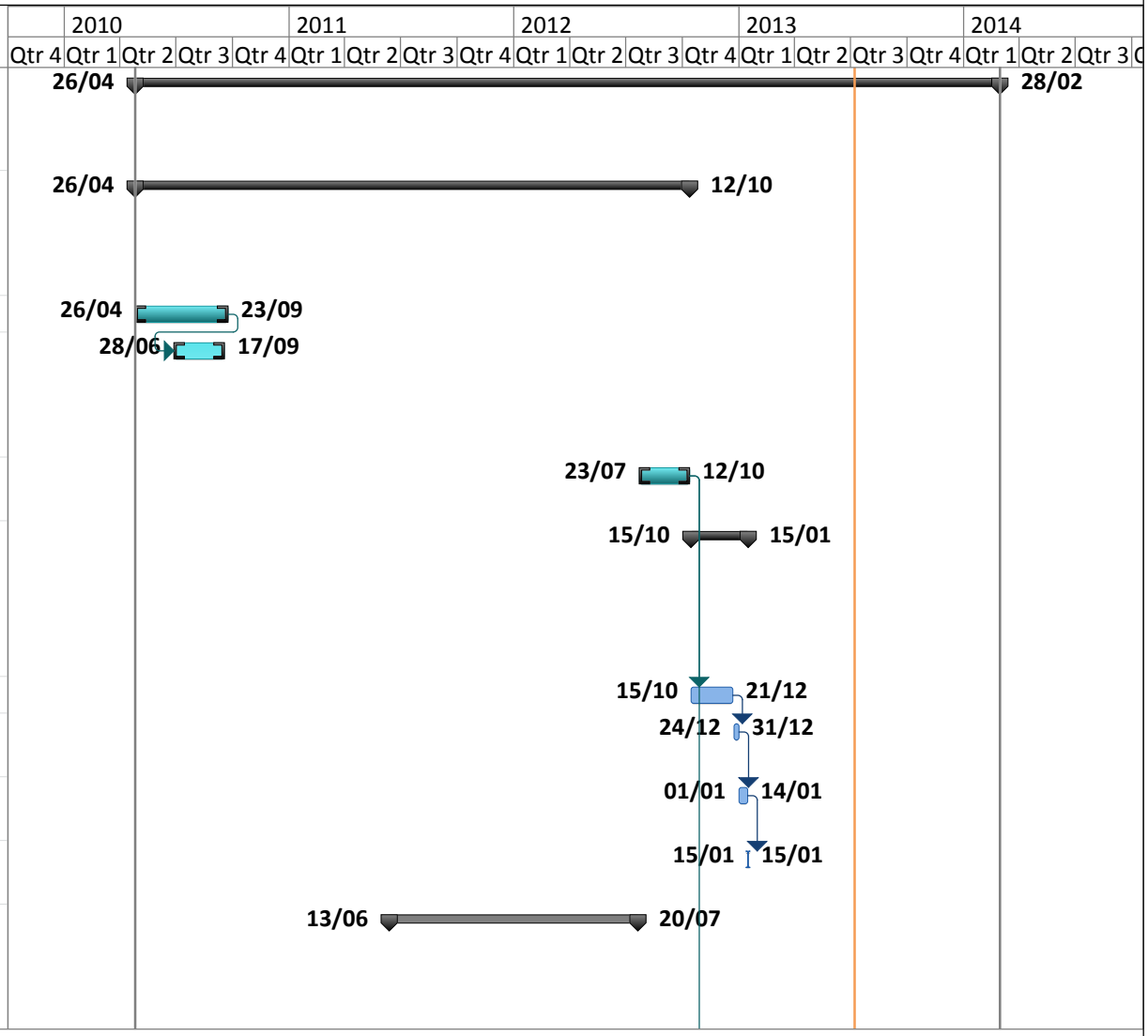
Project Deliverables	**Relationship with the regional performance-based plan (PFF)**	**Responsible Party**	**Status of Implementation** [1]	**Date of Delivery**	**Comments**
Regional safety management plan for runway incursions/excursions	PFF SAM AGA 01, 02, 03, 04, 05	Alfredo Chavez		2013	Analyse existing statistics and prioritise the main AGA factors that cause runway incursions/excursions, and develop a runway safety prevention and mitigation plan from the AGA perspective.
Training programme to improve runway safety	PFF SAM AGA 05	SAM RO	**100%**	2013	A SMS/PAF workshop was held from 13 to 17 June 2011 in Panama to prevent runway incursions. Workshop on Air Navigation Visual Aids from 7 to 11 May in Lima, Peru to prevent runway incursions. Also, in July 2012 the RRSS Seminar was held in Quito, Ecuador and annual meetings (March 2013, Lima) on RST implementation in the airports of the Region are being held.
Guidance Manual on runway safety team (RST) implementation at aerodromes	PFF SAM AGA 05	GREPECAS	**80%**	2013	ICAO HQ has developed a guidance manual for RSTs, which is under review.

[1] *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 [1]	Date of Delivery	Comments
Timetable of implementation of mitigation measures at aerodromes	PFF SAM AGA 05	States/Aerodromes	**10%**	2015	Assist RSTs in their safety prevention and mitigation tasks from the AGA perspective
Resources needed	Designation of experts in the execution of some of the deliverables, financial resources for organising training courses and meetings.				

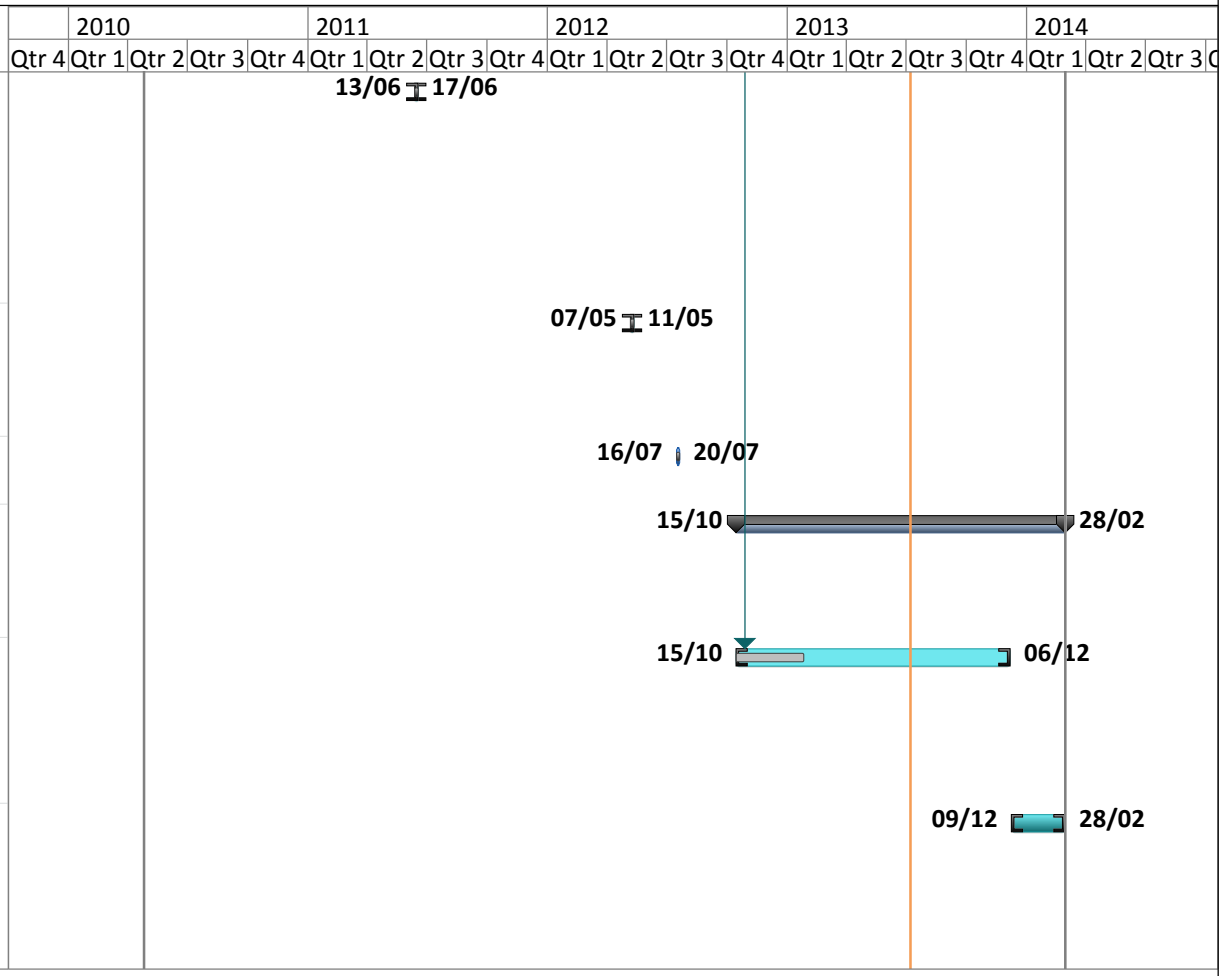
GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)
PROYECTO MEJORAR LA SEGURIDAD OPERACIONAL EN LA PISTA / ENHANCE RUNWAY SAFETY PROJECT

ID	Task Name	Duration
1	**PROYECTO MEJORAR LA SEGURIDAD OPERACIONAL EN LA PISTA / ENHANCE RUNWAY SAFETY PROJECT**	**1005 days**
2	**Plan Regional de Gestión de seguridad Operacional para Incursiones/Excursiones de Pista / Regional Plan for Runway Incursions/Excursions Safety Management**	**645 days**
3	Encuesta Regional / Regional survey	109 days
4	Analisis de encuesta y preparacion de relacion de las mejroes practicas en la region / Survey responses analysis and list of best practices in the Region	60 days
5	Elaboracion de medidas de mitigacion Development of mitigation measures	60 days
6	**Manual Guía para la vigilancia de la implantación del plan regional de gestión de la seguridad operacional de pistas/Guidance manual for surveillance of the implementation of the regional runway safety management plan**	**67 days**
7	Recolectar información /Collect information	50 days
8	Entrega de propuesta de borrador / Delivery of draft proposal	6 days
9	Revision de la propuesta borrador / Review of draft proposal	10 days
10	Entrega documento final / Delivery of final document	1 day
11	**Programa de capacitación para mejorar la seguridad operacional en pistas /Training programme for inspectors for runway safety enhancement**	**290 days**



GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)
PROYECTO MEJORAR LA SEGURIDAD OPERACIONAL EN LA PISTA / ENHANCE RUNWAY SAFETY PROJECT

ID	Task Name	Duration
12	Seminario/Taller sobre el Sistema de Gestión de Seguridad Operacional (SMS) y Evaluación del Riesgo del Peligro de Fauna Silvestre - Incursiones en pista / Seminar/Workshop on SMS & Evaluation of Wildlife Hazard - Runway Incursion, Panama	5 days
13	Taller de Ayudas Visuales para la Aeronavegación - Incursiones de pista / Air Navigation Visual Aids Workshop - Runway Incursions, Lima - Peru	5 days
14	Seminario de RRSS/RRSS Seminar, Quito - Ecuador	5 days
15	**Cronograma de implementación de medidas de mitigación en los aeródromos/Implementation schedule for the implementation of mitigation measures at aerodromes**	**360 days**
16	Asistencia en la conformacion de los Equipos de Seguridad Operacional de los Aeropuertos (RST) / Assistance in the implementation of the Airports RWY safety teams (RST)	300 days
17	Cronograma de implementacion de medidas de mitigacion por los RST de los aeropuertos / Implementation schedule for the implementation of mitigation measures at aerodromes by the RST	60 days



APPENDIX F

PROJECT ON QUALITY AND AVAILABILITY OF AERONAUTICAL DATA

SAM Region	**PROJECT DESCRIPTION (DP)**	**DP N° F4**	
Programme	**Title of the Project**	**Start**	**End**
Aerodromes *(ICAO programme coordinator: Lia Ricalde)*	Quality and Availability of Aeronautical Data *Project coordinator:* *Vicente Uribe (Colombia)* *Experts contributing to the project:* *TBD*	2012	2015
Objective	Efficient aerodrome operations based on aeronautical data quality assurance.		
Scope	Documentation in support of the quality and availability of aeronautical data at the aerodromes of the Region: • Reduction of aerodrome deficiencies related to non-compliance with the CAR/SAM ANP • Regional strategy for the implementation of quality and availability of aerodrome aeronautical data • Aeronautical data provided by the airport operator to AIM with the corresponding quality requirements • Updated obstacle data at aerodromes		
Metrics	• Percentage of resolved deficiencies related to Doc. 8733, Vol. II FASID, table AOP 1 • Percentage of international aerodromes with updated obstacle data based on the WGS-84 system • Percentage of international aerodromes that have a master plan		
Strategy	• Develop a regional action plan to update the quality of the information contained in Doc 8733, CAR/SAM Air Navigation Plan, Vol. II FASID, Table AOP1; • Establish and implement a process to ensure the provision of aeronautical data by the airport operator to AIM, with the corresponding quality requirements • Update aerodrome obstacle data based on the WGS-84 system All tasks will be carried out by experts nominated by CAR States and organisations, under the leadership of the project coordinator. Communication amongst project members and between the project and programme coordinators shall be via teleconference and the Internet. Upon completion of the studies, the results will be sent to the ICAO programme coordinator as a final consolidated document for its analysis, revision, and approval, and for submission to the GREPECAS PPRC.		
Rationale	• The CAR/SAM ANP requires updating and quality of the aeronautical data of the international airports listed therein. There are many deficiencies due to non-compliance with the ANP, which, in many cases, is already obsolete and requires a comprehensive revision by States. • Aerodrome obstacles based on the WGS-84 also require updating.		

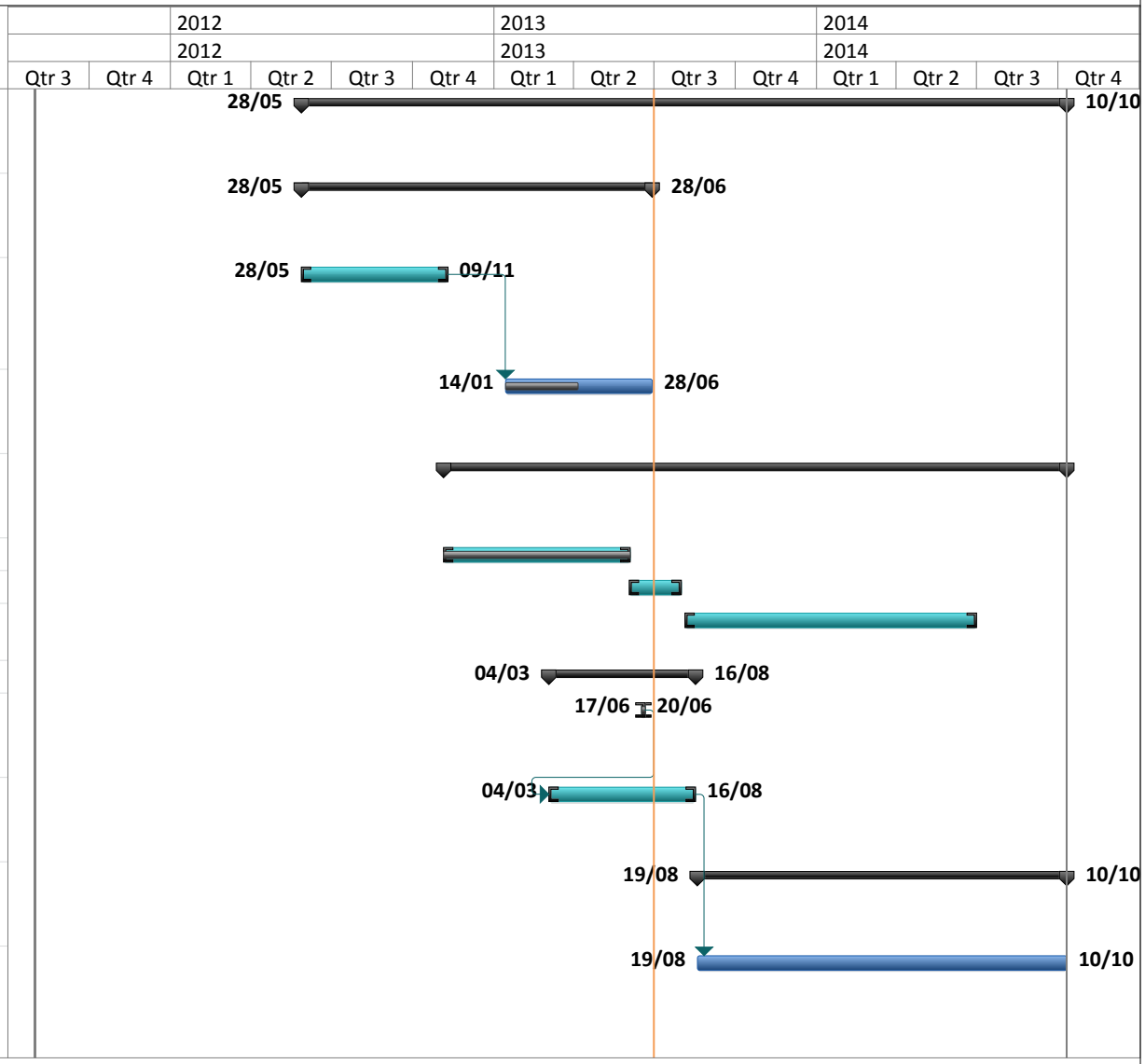
Related projects	The following projects were defined at the last meeting of the AGA/AOP Subgroup (AGA/AOP/SG/8), and are related to the project described in this DP: • Aerodrome certification • Safety assessment of aerodromes with non-conformities • Improve runway safety • Improvement of aerodrome physical and operational characteristics

Project Deliverables	**Relationship with the regional performance-based plan (PFF)**	**Responsible Party**	**Status of Implementation** [1]	**Date of Delivery**	**Comments**
Updating of FASID Table AOP1, Doc 8733 CAR/SAM ANP	PFF SAM AGA 01	AGA RO	**25%**	2014	An amendment is under preparation to update the information contained in FASID Table AOP1, which includes all the States of the SAM Region. With this amendment the deficiencies of the aerodromes of the Region related to non-compliance of the CAR/SAM ANP will be reduced
Master plans	PFF SAM AGA 01	States/ Aerodromes	**30%**	2015	Training in master plans and national airport development was carried out, with the purpose that the States update their master plans if available or develop them for the airports of the States.
Regional strategy for quality and availability of aeronautical data implementation at aerodromes	PFF SAM AGA 01	Vicente Uribe	**50%**	2015	A strategy proposal has been developed to be implemented by States in order to reach the required quality of aeronautical data.
Survey of aerodrome obstacles based on WGS-84	PFF SAM AGA 01	States/ Aerodromes		2014	In collaboration with AIM
Resources needed	Designation of experts for the execution of some of the deliverables, financial resources for the purpose of organising training courses and meetings.				

[1] *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*

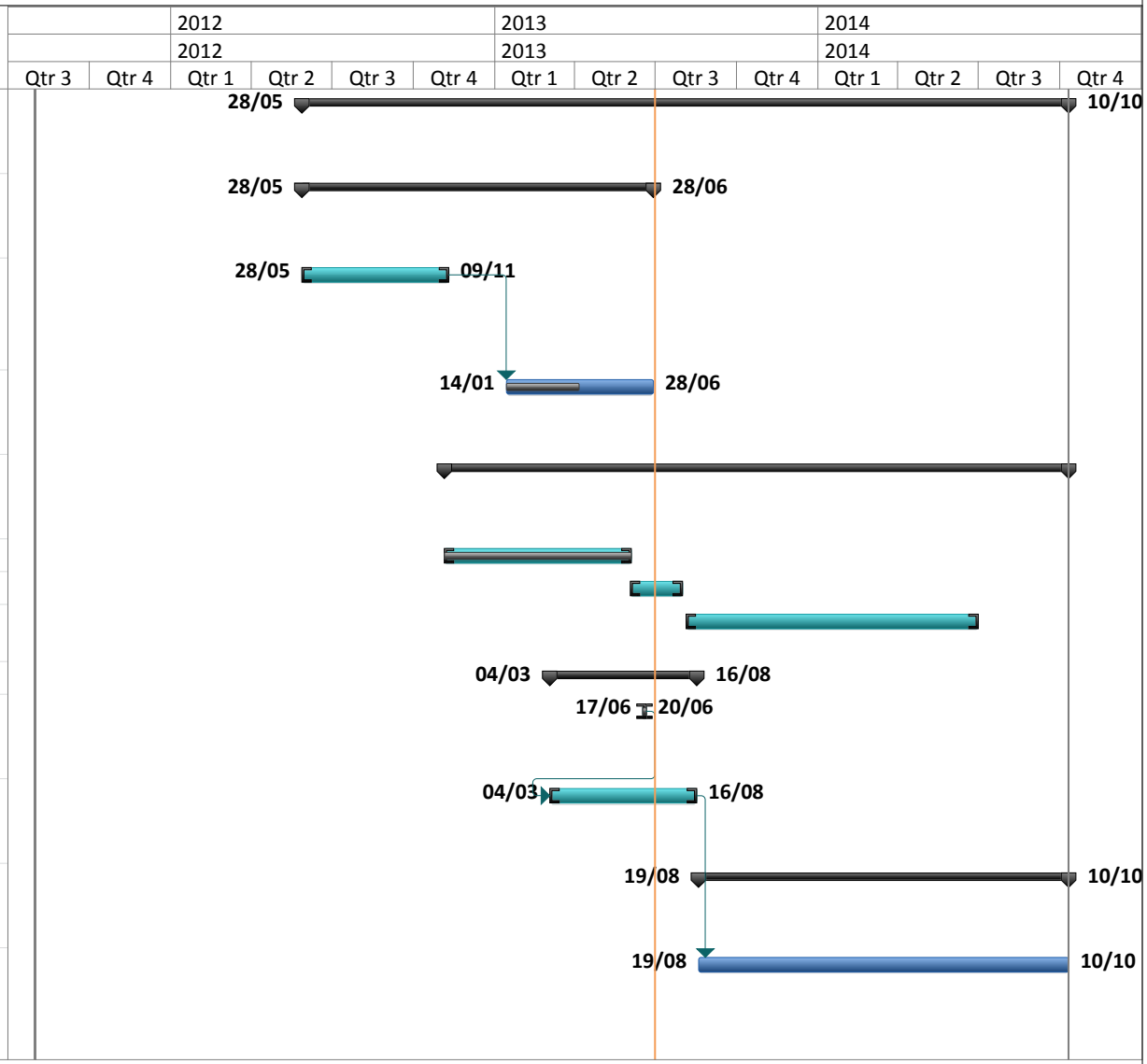
GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)
PROYECTO CALIDAD Y DISPONIBILIDAD DE LOS DATOS AERONÁUTICOS / QUALITY AND AVAILABILITY OF AERONAUTICAL DATA PROJECT

ID	Task Name	Duration
1	**Calidad y Disponibilidad de los Datos Aeronáuticos/Quality and Availability of Aeronautical Data**	**620 days**
2	**Actualizacion de la Tabla AOP1 del FASID, Doc. 8733 ANP CAR/SAM/Update of FASID AOP1 Table, Doc. 8733 CAR/SAM ANP**	**285 days**
3	Analisis de Deficiencias AGA relacionadas a incumplimiento de la tabla AOP1 del FASID, Doc. 8733 / Analysis of AGA deficiencies related to no compliance with AOP1 Table, FASID, Doc. 8733	120 days
4	Enmiendas AGA a la tabla AOP1 del FASI, Doc. 8733 / AGA Amendments to the AOP1 Table, FASID, Doc. 8733	120 days
5	**Estrategia Regional para la implantación de calidad y disponibilidad de los datos aeronáuticos de los aeródromos**	**505 days**
6	Desarrollo de la propuesta de estrategia	151 days
7	Socializacion de propuesta de estrategia	43 days
8	Implementacion de estrategia regional para la calidad de datos aeronauticos	236 days
9	**Planes Maestros**	**120 days**
10	Taller para desarrollo de Planes Maestros/Workshop for the development of Master Plans	4 days
11	Manual Guia para el desarrollo de Planes Maestros / Guidance Material for the development of Master Plans	120 days
12	**Levantamiento de obstáculos en los aeródromo en el sistema WGS-84 / Survey of obstacles at aerodromes in WGS-84 system**	**300 days**
13	Plan de acción para el levantamiento de obstáculos en los aeródromo en el sistema WGS-84 / Action plan for removal of obstacles at aerodromes in WGS-84 system	300 days



GRUPO REGIONAL CAR/SAM DE PLANIFICACION Y EJECUCION / CAR/SAM REGIONAL PLANNING AND IMPLEMENTATION GROUP (GREPECAS)
PROYECTO CALIDAD Y DISPONIBILIDAD DE LOS DATOS AERONÁUTICOS / QUALITY AND AVAILABILITY OF AERONAUTICAL DATA PROJECT

ID	Task Name	Duration
1	**Calidad y Disponibilidad de los Datos Aeronáuticos/Quality and Availability of Aeronautical Data**	**620 days**
2	**Actualizacion de la Tabla AOP1 del FASID, Doc. 8733 ANP CAR/SAM/Update of FASID AOP1 Table, Doc. 8733 CAR/SAM ANP**	**285 days**
3	Analisis de Deficiencias AGA relacionadas a incumplimiento de la tabla AOP1 del FASID, Doc. 8733 / Analysis of AGA deficiencies related to no compliance with AOP1 Table, FASID, Doc. 8733	120 days
4	Enmiendas AGA a la tabla AOP1 del FASI, Doc. 8733 / AGA Amendments to the AOP1 Table, FASID, Doc. 8733	120 days
5	**Estrategia Regional para la implantación de calidad y disponibilidad de los datos aeronáuticos de los aeródromos**	**505 days**
6	Desarrollo de la propuesta de estrategia	151 days
7	Socializacion de propuesta de estrategia	43 days
8	Implementacion de estrategia regional para la calidad de datos aeronauticos	236 days
9	**Planes Maestros**	**120 days**
10	Taller para desarrollo de Planes Maestros/Workshop for the development of Master Plans	4 days
11	Manual Guia para el desarrollo de Planes Maestros / Guidance Material for the development of Master Plans	120 days
12	**Levantamiento de obstáculos en los aeródromo en el sistema WGS-84 / Survey of obstacles at aerodromes in WGS-84 system**	**300 days**
13	Plan de acción para el levantamiento de obstáculos en los aeródromo en el sistema WGS-84 / Action plan for removal of obstacles at aerodromes in WGS-84 system	300 days



APPENDIX G

PROJECT ON THE IMPROVEMENT OF AERODROME PHYSICAL AND OPERATIONAL CHARACTERISTICS

SAM Region	**PROJECT DESCRIPTION (DP)**	**DP N° F5**	
Programme	**Title of the Project**	**Start**	**End**
Aerodromes (ICAO programme coordinator: Lia Ricalde)	*Improvement of Aerodrome Physical and Operational Characteristics* *Project coordinator:* *Hugo Vieira de Vasconcelos (Brazil)* *Experts contributing to the project:* *Aldemar Pinzon (Colombia)*	2011	2015
Objective	Develop guides and operational criteria to increase aerodrome capacity with efficiency		
Scope	Documentation to support the improvement of aerodrome physical and operational characteristics • Guide for calculating runway and apron capacity • Guide for calculating runway and apron capacity and demand • Training of instructors for the course on calculation of aerodrome capacity • Development of a user-friendly software/programme for calculating capacity • Guide on practical improvements for optimising runway and apron capacity		
Metrics	• Number of States whose aerodrome capacity has been calculated • Number of airports with optimised runway and apron capacity • Number of aerodromes with increased capacity as a result of improvements in their infrastructure and/or procedures • Percentage of operations delayed, by aerodrome		
Strategy	• Development of the methodology for calculating aerodrome capacity • Training of instructors to replicate capacity calculation procedures • Implement capacity calculation procedures, and assess those aerodromes whose installed capacity is almost saturated • Develop procedures to optimise runway and apron capacity at aerodromes • Develop environmental management procedures in coordination with regional committees • Apply the procedures for optimising runway and platform capacity at aerodromes • Establish the requirements applicable to aerodrome operators for the implementation of surface movement guidance and control systems • Monitor the optimisation of runway and apron capacity All tasks will be carried out by experts nominated by CAR States and organisations, under the leadership of the project coordinator. Communication amongst project members and between the project and programme coordinators shall be via teleconference and the Internet. Upon completion of the studies, the results will be sent to the ICAO programme coordinator as a final consolidated document for its analysis, revision, and approval, and for submission to the GREPECAS PPRC.		

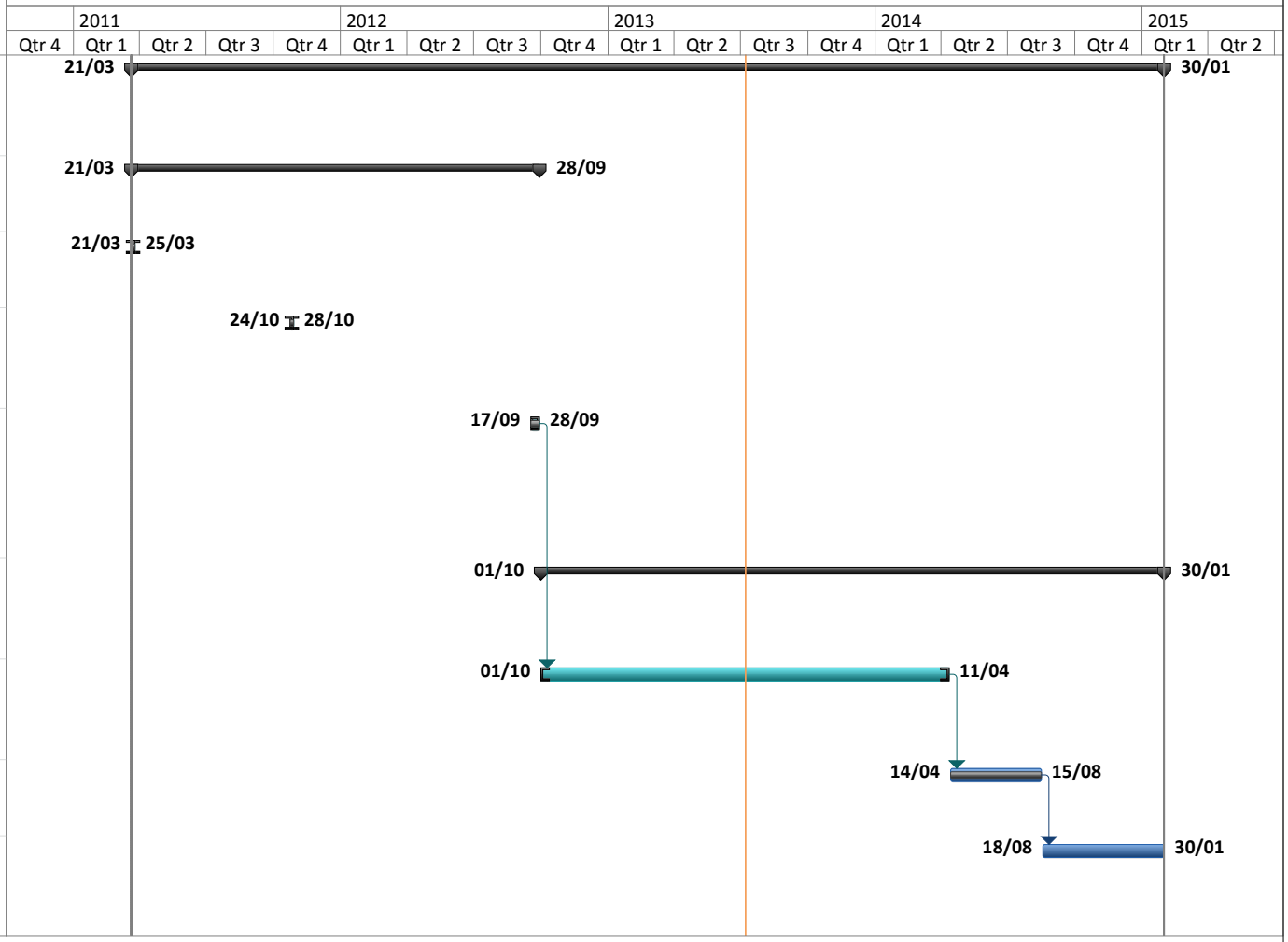
Rationale	• The Region shows an unexpected increase in the volume of passenger and cargo operations, as a result of which the main airports of the Region are almost or already saturated • Improving aerodrome infrastructure takes time, thus the need to optimise existing capacity • It is foreseen that the new generation of wide-body aircraft will be operating at the main airports of the Region
Related projects	• The following projects were defined at the last meeting of the AGA/AOP Subgroup (AGA/AOP/SG/8), and are related to the project described in this DP: • Aerodrome certification • Safety assessment of aerodromes with non-conformities • Runway safety improvement • Quality and availability of aeronautical data

Project Deliverables	Relationship with the regional performance-based plan (PFF)	Responsible Party	Status of Implementation [1]	Date of Delivery	Comments
Methodology for calculating runway and ATC sector capacity	PFF SAM AGA 04	CGNA	**100%**	2011	Currently, the AGA and ATM areas are working towards the adoption of the CGNA methodology for calculating runway and ATC sector capacity
Course developed for instructors on the calculation of runway and ATC sector capacity	PFF SAM AGA 04	CGNA	**100%**	2012	A course for instructors was conducted in November 2011 and concluded in 2012, two participants were certified as instructors by CGNA.
Software/program for calculating runway and apron capacity	PFF SAM AGA 04	AGA RO	**100%**	2013	The methodology developed should migrate towards a programme with a user-friendly interface that reduces methodological subjectivity.

[1] *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 [1]	Date of Delivery	Comments
Methodology for calculating runway and apron capacity	PFF SAM AGA 04	AGA RO		2013	It is foreseen to include in the existing methodology the section for calculating apron and taxiway capacity
Methodology for calculating runway and apron capacity and demand	PFF SAM AGA 04	AGA RO		2014	Once the States can calculate the capacity of their aerodromes using the same method, demand calculation may be added
Guidance manual on runway and apron capacity optimisation	PFF SAM AGA 04	TBD		2015	The best practices of the Region would be used to develop a guide on runway and apron optimisation
Resources needed	Designation of experts for the execution of some of the deliverables, financial resources for organising training courses and meetings.				

ID	Task Name	Duration
1	**Mejoras de las Características Físicas y Operacionales del Aeródromo/Physical & Operational Characteristics Improvement for Aerodromes**	**1010 days**
2	**Metodología para cálculo de capacidad de pistas y sectores ATC/Methodology for calculation of runway capacity and ATC sectors**	**400 days**
3	Curso sobre cálculo de capacidad para pistas y sectores ATC / Course for calculation of runway capacity and ATC sectors	5 days
4	Curso desarrollado para instructores de cálculo de capacidad para pistas y sectores ATC/Course for instructors in calculation of runway capacity and ATC sectors	5 days
5	Desarrolllo de herramienta para el calculo de capacidad de pistas y sectores ATC basada en metodologia del CGNA de Brasil / Development of tool for calculation of runway capacity and ATC sectors based on the Brazilian CGNA methodology	10 days
6	**Metodología para cálculo de capacidad y demanda de pistas y plataformas/Methodology for calculation of capacity and request for runways and aprons**	**610 days**
7	Metodología para cálculo de capacidad y demanda de pistas y plataformas/Methodology for calculation of capacity and request for runways and aprons	400 days
8	Software/programa para cálculo de capacidad de pistas y plataformas/Software for calculation of runway and apron capacity	90 days
9	Manual Guía para la optimización de la capacidad de pistas y plataformas/Guidance manual for runway and apron capacity optimization	120 days



APPENDIX H

PROJECT ON AERODROME CERTIFICATION

SAM Region	**PROJECT DESCRIPTION (DP)**	**DP N° F1 (Proposed F1 + F2 + F4 + F5)**	
Programme	**Title of the Project**	**Start**	**End**
Aerodromes *(ICAO programme coordinator: Lia Ricalde)*	Aerodrome Certification *Project coordinator:* *Carlos Garcia Pepe (Uruguay)* *Experts contributing to the project:* *Alejandro Álvarez/ José Martinez Cal (ANAC – Argentina)* *Edwilson Sena dos Santos (DECEA – Brazil)* *Vicente Uribe/ Aldemar Pinzón (AEROCIVIL - Colombia)* *Augusto Diaz (DGAC – Ecuador)* *Adolfo Medina / Juan Flor (DGAC – Peru)* *Yumaira Garcia (INAC – Venezuela)*	2010	2015
Objective	Improvement in the efficiency of airport operations.		
Scope	• CDM at the airport • Implementation of aeronautical data quality and availability • Aerodrome certification at regional level • Airport planning • Airport capacity calculation of international airports • Heliport safe operations		
Metrics	• Number of international aerodromes with A-CDM implemented • Number of deficiencies eliminated regarding the non-compliance of the CAR/SAM Air Navigation Plan • Number of international aerodromes with updated obstacle data • Number of certified international aerodromes • Number of trained AGA inspectors • Number of international aerodromes with master plans • Number of international aerodromes with calculated aerodrome capacity • Number of heliports with operational approval		

Strategy	• Develop guidelines for A-CDM implementation at the airports • Develop a regional action plan ensuring the provision of aeronautical data by the airport operator to the AIM, with the corresponding quality requirements • Update the aerodrome obstacle data in WGS-84 system • Harmonise State regulations with the AGA LAR set • Identify most common non-conformities at the airports of the region related with ICAO SARPs • Develop guidance for safety assessment of the non-conformities related with ICAO SARPs • Train regional aerodrome inspectors with the MIAGA • Establish an aerodrome internal audit process for operators, based on the SMS • Validate the existing regional international aerodrome certification with the AGA LAR set • Certification process oversight • Develop airport planning guidance manuals • Develop environmental management procedures in coordination with Regional Committees • Calculate the existing capacity of main international airports of the Region • Develop and apply procedures for aerodrome capacity optimization • Develop regulations to ensure safe operations at heliports
Rationale	• Airport certification difficulties in the Region are mainly due to the fact that most existing airports were built before the issuance of the ICAO SARPs that establish certification requirements. • The new commercial aircraft fleet has more requirements than the critical aircraft that were used at the time of the original design. • Difficulties in the adjustment and updating of State aeronautical legislation related to aerodromes to facilitate aerodrome certification. • Difficulties for safety and risk assessment required for each non-conformity • Lack of trained personnel within State civil aviation authorities to conduct safety risk assessment; aerodrome certification and oversight • The region shows an unexpected increase in the volume of passenger and cargo operations, as a result of which the main airports of the region are almost or already saturated • It is foreseen that the new generation of wide-body aircraft will be operating at the main airports of the region • Improving aerodrome infrastructure takes time, thus the need to optimise aerodrome existing capacity • This project contributes to the implementation of modules ASBU B0 ACDM, B0 A-SMGCS, B0 AIXM and B0 AMAN/DMAN and PFF SAM AGA 02, AGA 03, AGA 04, AGA 05, ATM 05, CNS 02, CNS 04, MET 02, MET 04, AIM 01 and AIM 02, *Air Navigation System Performance-Based Implementation Plan for the SAM Region (SAM PBIP)*
Related projects	The five SAM projects defined at GREPECAS AGA/AOP/SG/8 Subgroup meeting are proposed to be reduced to two projects, being the following related to the project described in this DP: • Improvement of runway safety

Project Deliverables	Relationship with the regional performance-based plan (PFF)	Responsible Party	Status of Implementation [1]	Date of Delivery	Comments
Updating of FASID Table AOP1, Doc 8733 CAR/SAM ANP	PFF SAM AGA 01 and ANRF B0 AIXM	AGA RO	**25%**	2014	An amendment is under preparation to update the information contained in FASID Table AOP1, which includes all the States of the SAM Region. With this amendment the deficiencies of the aerodromes of the Region related to non-compliance of the CAR/SAM ANP will be reduced
Master plans	PFF SAM AGA 01 and ANRF B0 A-CDM	States/ Aerodromes	**30%**	2015	Training in master plans and national airport development was carried out, with the purpose that the States update their master plans if available or develop them for the airports of the States.
Regional strategy for quality implementation and availability of aerodrome aeronautical data	PFF SAM AGA 01 and ANRF B0 AIXM	Vicente Uribe	**50%**	2014	A strategy proposal has been developed to be implemented by States in order to reach the required aeronautical data quality
Survey of aerodrome obstacles based on WGS-84 system	PFF SAM AGA 01 and ANRF B0 AIXM	States/ Aerodromes		2014	In collaboration with AIM
AGA LAR set	PFF SAM AGA 02 and ANRF B0 A-CDM	Carlos Garcia Pepe	**100%**	2013	The texts of the AGA LAR set (LAR 139, LAR 153, and LAR 154) have been approved by the General Board and are in the revision process to include the last amendment to Annex 14
Development of the MIAGA	PFF SAM AGA 02 and ANRF B0 A-CDM	Carlos Garcia Pepe	**100%**	2012	The AGA Inspector Manual (MIAGA) has been completed

[1] *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 [1]	Date of Delivery	Comments
List of the most common non-conformities in the Region	PFF SAM AGA 03 and ANRF B0 A-CDM	Virgilio de Matos Santos Castelo Branco		2012	Conduct a survey amongst the States, requesting information on the most common non-conformities that prevent the certification of international aerodromes
Guidance manual on the certification of aerodromes with non-conformities	PFF SAM AGA 03 and ANRF B0 A-CDM	Virgilio de Matos Santos Castelo Branco		2013	The guidance manual will be developed based on the information retrieved from the questionnaire and will include available safety assessment tools for the most common non-conformities in the Region and what cases qualify for assessment for the purpose of obtaining the certification with deviations
Training programme for inspectors on the certification of aerodromes with non-conformities	PFF SAM AGA 01, 03, 04, 05 and PFF SAM AGA 03 and ANRF B0 A-CDM	AGA Officer	**100%**	2013	Aerodrome inspectors have been trained in 2011 in an Aeronautical Studies Workshop carried out in Lima on physical characteristics, also in 2012 an Aeronautical Studies – Obstacle Workshop was carried out in Colombia. In 2013 the SRVSOP has started to offer risk assessment workshops to interested States, in this regard Argentina has requested a workshop to be carried out in November 2013 in Buenos Aires.
Harmonisation of the AGA LARs	PFF SAM AGA 02 and ANRF B0 A-CDM	States - Regional System		2015	It is expected that the harmonisation between the States and the AGA LARs will be carried out in accordance with the timetable approved by the General Board
Guide on aerodrome internal audits	PFF SAM AGA 02 and ANRF B0 A-CDM	Augusto Diaz		2015	Prior to certification, airport operators must conduct internal audits. A guide will be developed to assist airport operators with self-inspections.
Regional aerodrome certification programme	PFF SAM AGA 01, 03, 04, 05 and ANRF B0 A-CDM	TBD		2015	Once the harmonisation process is underway and related projects are completed, airports in the Region may be certified based on the AGA LARs.

Project Deliverables	Relationship with the regional performance-based plan (PFF)	Responsible Party	Status of Implementation [1]	Date of Delivery	Comments
Certification validation of existing aerodromes based on the AGA LARs	PFF SAM AGA 01, 03, 04, 05 and ANRF B0 A-CDM	TBD		2015	Aerodromes certified under the State regulations may apply for validation of their aerodrome certificate based on the AGA LARs.
Oversight of the certification process	PFF SAM AGA 01, 03, 04, 05 and ANRF B0 A-CDM	TBD		2015	Train AGA inspectors with the best oversight practices of the Region
Calculation of capacity of the main international aerodromes of the Region	PFF SAM AGA 01, 03, 04, 05 and ANRF B0 AMAN/DMAN, B0 A-SMGCS	TBD		2015	States will have the calculated aerodrome capacity
Guidance Manual for runway and apron capacity optimization	PFF SAM AGA 01, 03, 04, 05 and ANRF B0 AMAN/DMAN, B0 A-SMGCS	TBD		2015	Best practices in the Region would be used to develop a runway and apron optimization guide
Guidance Manual for heliport operations	ANRF B0 A-CDM	TBD		2015	Develop guidance material for heliport safe operations
Resources needed	Designation of experts for the execution of some of the deliverables; financial resources for organising training courses, aerodrome certification trials, including aerodromes with non-conformities to ICAO SARPs, and meetings				

APPENDIX I

PROJECT ON IMPROVEMENT OF RUNWAY SAFETY

SAM Region	**PROJECT DESCRIPTION (DP)**	**DP N° F2 (Proposed previous F3)**	
Programme	**Title of the Project**	**Start**	**End**
Aerodromes *(ICAO programme coordinator: Lia Ricalde)*	Improve Runway Safety *Project coordinator:* *Alfredo Chavez Baca (Peru)* *Experts contributing to the project:* *Hugo Vieira de Vasconcelos (Brazil)*	2011	2015
Objective	Reduce runway incursions/excursions at aerodromes in order to improve runway safety.		
Scope	Regulations and documentation to support the implementation of ICAO SARPs in order to improve runway safety at aerodromes in the Region: • Strategy to prevent and mitigate accidents and incidents due to runway incursions/excursions from the AGA perspective • AGA assistance to aerodrome safety committees (RSTs) in their runway safety tasks • Guides on aerodrome safety oversight		
Metrics	• Percentage of reduction in runway incursions/excursions in the aerodromes of the Region. • Percentage of aerodromes in the Region that have aerodrome safety teams (RSTs).		
Strategy	• In coordination with other bodies engaged in runway safety, analyse runway incursion/excursion statistics and prioritise AGA responsibilities • Establish a work relationship with regional AGA committees: ALACPA (pavement) and CARSAMPAF (wildlife hazard prevention) • Assist aerodrome safety committees (RSTs) in the Region and ensure the participation of the AGA component • Develop a safety management plan to prevent and mitigate runway incursions/excursions based on the analysis mentioned in the previous paragraph • Develop guides on oversight of the implementation of safety management plans in the aerodromes of the Region • Implement the safety management plan All tasks will be carried out by experts nominated by CAR States and organisations, under the leadership of the project coordinator. Communication amongst project members and between the project and programme coordinators shall be via teleconference and the Internet. Upon completion of the studies, the results will be sent to the ICAO programme coordinator as a final consolidated document for its analysis, revision, and approval, and for submission to the GREPECAS PPRC.		

Rationale	• Runway safety is a problem that affects all areas of air navigation • Different bodies are working to improve runway safety from different perspectives. The purpose of this project is to support the existing initiatives and to work in a coordinated manner, contributing form the point of view of AGA • Although there are better practices in SAM States, there is no harmonisation to expedite their implementation in the airports of the Region. The purpose of this project is to develop a strategy to be used by States to reduce runway incursions/excursions in their airports.
Related projects	The five SAM projects defined at GREPECAS AGA/AOP/SG/8 Subgroup meeting are proposed to be reduced to two projects, being the following related to the project described in this DP: • Improved Airport Operations through CDM at the airport level (A-CDM).

Project Deliverables	**Relationship with the regional performance-based plan (PFF)**	**Responsible Party**	**Status of Implementation** [1]	**Date of Delivery**	**Comments**
Regional safety management plan for runway incursions/excursions	PFF SAM AGA 01, 02, 03, 04, 05	Alfredo Chavez		2013	Analyse existing statistics and prioritise the main AGA factors that cause runway incursions/excursions, and develop a runway safety prevention and mitigation plan from the AGA perspective.
Training programme to improve runway safety	PFF SAM AGA 05	SAM RO	**100%**	2013	SMS/PAF workshop on 13-17 June 2011 in Panama to prevent runway incursions. Workshop on air navigation visual aids on 7-11 May in Lima, Peru to prevent runway incursions. Also, in July 2012 the RRSS Seminar was held in Quito, Ecuador and annual meetings (March 2013, Lima) on RST implementation in the airports of the Region are being held.
Guidance Manual on runway safety team (RST) implementation at aerodromes	PFF SAM AGA 05	GREPECAS	**80%**	2013	ICAO HQ has developed a guidance manual for RSTs, which is under review.

[1] *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 [1]	Date of Delivery	Comments
Timetable of implementation of mitigation measures at aerodromes	PFF SAM AGA 05	States/Aerodromes	**10%**	2015	Assist RSTs in their safety prevention and mitigation tasks from the AGA perspective.
Resources needed	Designation of experts in the execution of some of the deliverables, financial resources for organising training courses and meetings.				