International Civil Aviation Organization
CAR/SAM Regional Planning and Implementation Group (GREPECAS)
Eighth Meeting of the GREPECAS Aerodromes and Ground Aids/Aerodrome Operational Planning Subgroup (AGA/AOP/SG/8)
Mexico City, México, 19 to 21 July 2011

Agenda Item 4: Transformation of the AGA/AOP Subgroup and its Terms of Reference, Work Programme and Task Forces into the Aerodromes and Runway Programme and Projects
4.1 Development of Projects under the AGA Programme

PROJECTS PROPOSAL FOR THE SAM REGION

(Presented by the Secretariat)

SUMMARY

ICAO SAM Regional Office has been working with the States of the Region a Performance-Based Air Navigation System Implementation Plan, which has included as operational requirements within this Plan the Aerodrome Operational Planning, including Ground Aids.

Planning has been based on following principal bases:

- Quality And Availability Of Aeronautical Data
- Aerodrome Certification
- Operations at Aerodromes that do not Meet ICAO SARPS
- Improvement of Aerodrome Physical and Operational Characteristics
- Runway Safety

References:

- Final Report of GREPECAS/16 Meeting – Decision 16/47 - TRANSFORMATION OF GREPECAS SUBGROUPS

Strategic Objectives	*This working paper is related to Strategic Objectives of Safety.*

1. Introduction

1.1 In view of the new requirements derived from the implementation of the ATM Operational Concept, SAM States shall consider the planning of improvements and strengthening of aerodrome services, pointing out that the ATM community includes as members the aerodromes, aerodromes exploiters and other parties contributing to the supply and operation of the physical infrastructure necessary for take-offs, landings and aircrafts flight stop services, taking into account the Global Air Navigation Plan initiatives as well as new provisions and requirements that require implementation in the short and medium term, and the related components of the cited concept.

2. Analysis of the current situation (2011)

2.1 Though aerodromes certification is a standard included in Annex 14 since 2003, only 5% of international airports were certified in the SAM region. Normally States do not update the information contained in the Air Navigation Plan, nor inform ICAO Regional Office about the correction of deficiencies registered in the GANDD database. Therefore, States in the Region commonly show difficulties to achieve their obligations regarding aerodromes surveillance, generating preoccupation regarding safety levels in such States, added to continuous increment of air transport demand, particularly when infrastructure is used up to capacity limits.

2.2 Recent introduction of new air navigation technologies contrasts with the lack of compliance of airport standards, including difficulties in the adoption of new safety management tools now widely used in other human activities.

2.3 Most of existing installations were settled many years ago, when design requirements were not as demanding as in the present days. Therefore, there exist difficulties for the certification of aerodromes constructed under less strict requirements than those being required for actual designs.

2.4 In the AGA area, gaps that contribute to these scenery and that can affect efficiency of new air navigation technologies, such as absence or inadequacy of national regulation and orientation guidelines, lack of trained personnel to perform safety surveillance functions of exploited airports, difficulty for ensuring the supply, timely update and expedite dissemination of critical safety information, as well as information regarding terrain and emplacements that could constitute an obstruction or hazard to air navigation.

3. Strategy for the implementation of performance objectives

3.1 SAM States should make all possible efforts to warranty that aerodromes required physical characteristics and operational procedures followed by aerodrome exploiters correspond to ICAO standards and recommended methods (SARPS) and harmonise with Latin American regulations developed by the Regional Safety Oversight System (SRVSOP).

3.2 In the SAM Region, States should ensure that air navigation support services of aerodromes and airlines fulfil national regulations, harmonised with LAR AGA, and adopting the appropriate juridical frame for formalizing responsibilities of exploiters, public or private.

3.3 The aerodrome should negotiate the increase of TMA operations in a safety environment, which requires identifying and optimising the critical elements at the inside and outside of the aerodrome that can influence this condition.

3.4 The optimization of TMA air space structure with the PBN implementation makes necessary measures that ensure an effective control with respect to emplacements in aerodromes proximity areas, taking into account the minima separation applicable between aircrafts and obstacles.

3.5 As first reference to these critical elements, the identification of aerodromes located near to operational saturation, followed by actions required to improve this capacity in terms of differentiation of these limits through the application of the best practices in the existing infrastructure, and, if necessary, in modified infrastructure, are interpreted as a necessary requirement.

3.6 Other external conditions to aerodrome operation that should be coordinated with responsible Regional Committees are the limitation of operations due to noise level, to the use of ground and to bird hazard, as well as the cancelation of operations due to adverse climatic conditions, that affect or limit the required optimization.

4. Discussion

4.1 As a result of the assessment of aerodrome capacity factors directly affected by the increase in the flow of operations within the framework of safety management, strategies for achieving AGA/AOP objectives are identified, as summarised in five Performance Framework Formats (PFFs): Aerodrome information quality requirements, aerodrome certification, safe operations at aerodromes that do not meet ICAO SARPs (certificates with limitations), aerodrome capacity optimisation, and runway incursions and excursions.

5. Suggested action

5.1 The meeting is invited to take note of considerations presented in paragraph 2 and strategies presented in paragraph 3, in order to analyse the adoption by the ICAO South American Office of the projects proposed as PFF in **Appendix.**

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APÉNDICE / APPENDIX

PROGRAMME/PROGRAMA: **F: Aerodrome and Runway / Aeródromo y Pista**
PROJECT/PROYECTO: **F5: Quality & Availability of Aeronautical Data / Calidad y Disponibilidad de los Datos Aeronáuticos**
PROJECT COORDINATOR/ COORDINADOR DEL PROYECTO: **Mr. / Mrs./Sr. / Sra.**

No.	Tarea/Task	Inicio–Fin / Start – End	Responsable / Responsible	Estado / Status	Entregable / Deliverable
1	2	3	4	5	6
F5.1	Desarrollar un plan de acción regional para actualizar la calidad de la información contenida en el Documento 8733 Plan de Navegación de la Región CAR/SAM, Vol. II FASID, Tabla AOP1 / Develop a regional action plan to update the information contained in Document 8733 CAR/SAM Navigation Plan, Vol. II FASID, Table AOP1	(*) - 2018	GREPECAS	Valida / Valid	Plan de Acción Regional / Regional Plan of Action
F5.2	Establecer e implementar un proceso que asegure la provisión de datos aeronáuticos por el operador aeroportuario al AIM, con los requisitos de calidad correspondientes / Establish and implement a process to assure the provision of aeronautical data to AIM by the airport operator with the corresponding quality requirements.	(*) - 2018	Estados / States	Valida / Valid	Datos aeronáuticos al AIM / AIM aeronautical data
F5.3	Actualizar los datos de obstáculos de aeródromos en el sistema WGS-84 / Update aerodrome obstacle data in the WGS-84.	(*) - 2018	GREPECAS	Valida / Valid	Datos de obstáculos con sistema WGS-84 / WGS-84 system obstacles data

(*) Tarea ya iniciada

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PROGRAMME/PROGRAMA: **F: Aerodrome and Runway / Aeródromo y Pista**
PROJECT/PROYECTO: **F6: Aerodrome Certification / Certificación de Aeródromos**
PROJECT COORDINATOR/ COORDINADOR DEL PROYECTO: **Mr. / Mrs./Sr. / Sra.**

No.	Tarea/Task	Inicio–Fin / Start – End	Responsable / Responsible	Estado / Status	Entregable / Deliverable
1	2	3	4	5	6
F6.1	Desarrollar el Reglamento Aeronáutico Latinoamericano para Aeródromos (LAR-AGA) y el Manual de Inspector de Aeródromos (MIAGA) / Develop Latin American Aerodromes Regulations (LAR-AGA) and the Aerodromes Inspector Manual (MIAGA).	(*) - 2011	Proyecto Regional / Regional Project	Válida / Valid	Conjunto LAR AGA y MIAGA / LAR AGA and MIAGA package
F6.2	Armonizar la reglamentación de los estados con el LAR-AGA / Harmonise national regulations of States with LAR-AGA.	2012 - 2015	Estados / States	Válida/ Valid	Estados armonizados con LAR AGA / State harmonized with LAR AGA
F6.3	Capacitar inspectores de aeródromos regionales con el MIAGA / Train regional aerodrome inspectors with the MIAGA.	(*) – 2015	Proyecto Regional / Regional Project.	Válida/ Valid	Programa de Capacitacion para Inspectores de Aerodromos / Aerodrome Inspectors Training Programme
F6.4	Establecer un proceso de auditorías internas en los aeródromos por los operadores, basadas en el SMS / Establish a process of internal audits at aerodromes by operators based in SMS	(*) – 2015	Estados / States	Válida/ Valid	Guía de Auditorías internas para Aeródromos / Internal Audit Guide for Aerodromes
F6.5	Validar de los certificados de aeródromos otorgados antes de la armonización con el LAR-AGA / Validate aerodrome certificates granted before harmonization with LAR AGA	2015 – 2018+	Estados / States	Válida/ Valid	Re-certificación de aeródromos certificados /Re-certification of certified aerodromes
F6.6	Vigilancia del proceso de certificación / Surveillance of the certification process	2012 – 2018+	GREPECAS	Válida/ Valid	Guía de vigilancia / Surveillance Guide

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PROGRAMME/PROGRAMA: **F: Aerodrome and Runway / Aeródromo y Pista**
PROJECT/PROYECTO: **F7: Operational Safety for Aerodromes not compliant with ICAO SARPS / Operaciones Seguras en Aeródromos que no cumplen con SARPS de OACI**

PROJECT COORDINATOR/
COORDINADOR DEL PROYECTO: **Mr. / Mrs./Sr. / Sra.**

No.	Tarea/Task	Inicio–Fin / Start – End	Responsable / Responsible	Estado / Status	Entregable / Deliverable
1	2	3	4	5	6
F7.1	Identificar los Aeropuertos Regionales con características físicas y operacionales que no cumplen con las SARPS de OACI / Identify the regional airports with physical and operational characteristics that do not comply with ICAO SARPs.	(*) – 2012	Proyecto Regional / Regional Project	Valida / Valid	Informe de Aeródromos que no cumplen SARPS / Report of Aerodromes not complying with SARPS
F7.2	Desarrollar un procedimiento para la certificación con desviaciones, que incluya orientaciones para la evaluación de las no conformidades / Develop a procedure for certification with deviation, including orientations for the evaluation of the non-conformities..	(*) - 2013	Proyecto Regional / Regional Project	Valida / Valid	Guía para la certificación de aeródromos que no cumplen SARPS / Guide for aerodrome certification that do not comply with SARPS
F7.3	Implementar el procedimiento para la certificación con desviaciones / Implement the procedure for certification with deviations.	2013 - 2018	Estados / States	Valida / Valid	Numero de aeródromos certificados con desviaciones / Number of aerodromes certified with deviations

(*) Tarea ya iniciada / Task already initiated

A4

PROGRAMME/PROGRAMA: **F: Aerodrome and Runway / Aeródromo y Pista**
PROJECT/PROYECTO: **F8: Physical & Operational Characteristics Improvement for Aerodromes / Mejoras de las Características Físicas y Operacionales del Aeródromo**

PROJECT COORDINATOR/
COORDINADOR DEL PROYECTO: **Mr. / Mrs./Sr. / Sra.**

No.	Tarea/Task	Inicio–Fin / Start – End	Responsable / Responsible	Estado / Status	Entregable / Deliverable
1	2	3	4	5	6
F8.1	Desarrollar los procedimientos para cálculo de la capacidad de los aeródromos / Develop procedures for the calculation of aerodromes capacity.	2011* – 2012	Proyecto Regional / Regional Project	Válida / Valid	Guía para calculo de capacidad de aeródromos / Guidance material for Aerodrome capacity calculation
F8.2	Capacitar instructores para replicar los procedimientos de cálculo de capacidad / Train instructors to replicate procedures for calculation of capacity	2011* – 2012	Proyecto Regional / Regional Project	Válida / Valid	Curso desarrollado para instructors del curso de calculo de capacidad para aerodromos / Course development for instructors for aerodrome capacity calculation course
F8.3	Implementar los procedimientos de cálculo de capacidad y evaluar los aeródromos cuya capacidad instalada se encuentra próximo a saturación / Implement procedures for calculation of capacity and assess the aerodromes whose installed capacity is near saturation	2011* - 2012	Estados / States	Válida / Valid	Numero de Estados con capacidad de aerodromos calculada / Number of States with aerodrome capacity calculated
F8.4	Desarrollar procedimientos para optimizar la capacidad de pista y plataformas de aeródromos / Develop procedures to optimise aerodrome runway and apron capacity.	(*) – 2013	Proyecto Regional / Regional Project	Válida / Valid	Mejores practicas para optimizacion de la capacidad de pistas y plataformas / Best practices for RWY, TWY & aprons capacity optimization
F8.5	Desarrollar procedimientos de gestión ambiental en coordinación con los Comités Regionales / Develop environmental management procedures in coordination with the Regional Committees.	2011* - 2018	Proyecto Regional / Regional Project	Válida / Valid	Guias para gestión ambiental en aerodromos / Guideline material for environmental protection at the aerodromes
F8.6	Aplicar los procedimientos para la optimización de la capacidad de la pista y plataformas de aeródromos / Apply procedures for optimising aerodrome runway and apron capacity.	2013-2018	Estados / States	Válida / Valid	Numero de aeropuertos con capacidad de pistas y plataformas optimizada / Number of airports with optimized capacity at the RWY, TWY & apron

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No.	Tarea/Task	Inicio–Fin / Start – End	Responsable / Responsible	Estado / Status	Entregable / Deliverable
1	2	3	4	5	6
F8.7	Establecer, en coordinación con CNS, los requisitos aplicables a los operadores de aeródromo para la implantación de sistemas de guía y control del movimiento en la superficie / Establish, in coordination with CNS, requirements to be applied to aerodromes operations for the implementation of surface movement guide and control systems.	2012 – 2013	Proyecto Regional / Regional Project	Válida / Valid	Guias para implantación de los sistemas de control de movimiento de superficie AGA/CNS / Guidance material for the implementation of surface movement guide and control systems by AGA/CNS
F8.8	Monitorear la optimización de capacidad de pistas y plataformas / Monitor the optimisation of runway and apron capacity	(*) – 2018	GREPECAS	Válida / Valid	Guias para la vigilancia de la optimización de capacidad de pistas y plataformas / Guidance material for the monitoring of the optimized capacity for RWY, TWY & apron

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(*) Tarea ya iniciada / Task already initiated