



**Agenda Item 1: Follow-up to conclusions and decisions adopted by SAM/IG meetings and presentation of air navigation results at a global, interregional and intraregional level**

## **DRAFT GREPECAS PROJECT ON AIRPORT PLANNING FOR THE SAM REGION**

(Presented by the Secretariat)

### **SUMMARY**

This information paper presents, as submitted to the GREPECAS/18 meeting in IP/14, the work being carried out on a new draft Project F under the Aerodromes Programme, which intends to analyse and validate the possible root causes of aerodrome capacity limitations in the SAM Region derived from increased airspace capacity, traffic growth and failure to deploy specific infrastructure. Likewise, it proposes a plan with recommendations to the States on how to establish mechanisms for assessing and monitoring capacity/demand based on data and a collaborative approach among all stakeholders, and the drafting of national airport plans aimed at the establishment of a high-level approach to support and guide the development and updating of master plans for local airports, taking into account State and regional needs.

A proposed business case for the project is contained in the **Appendix** to this working paper.

### **References**

- ICAO Global Air Navigation Plan
- Doc 9184, Airport planning manual – Part 1, General planning, 2<sup>nd</sup> edition, 1987
- ICAO Annex 14, Vol. I Aerodrome design and operations, 7<sup>th</sup> edition
- Work in progress in the Aerodrome Design and Operations Panel (ADOP) of ICAO Headquarters in Montreal
- Report of the Industry High Level Group (2017)

## **1. Background**

1.1 In September 2013, the Industry High-Level Group (IHLG) was established as an initiative of the Secretary General of the International Civil Aviation Organization (ICAO), bringing together the heads of four industry organisations: the Airports Council International (ACI), the Civil Air Navigation Services Organisation (CANSO), the International Air Transport Association (IATA) and the International Coordinating Council of Aerospace Industries Associations (ICCAIA). The group had the task of analysing issues of global importance for international civil aviation that could be better addressed through a collaboration agreement among the States and the industry, instead of working on them individually.

1.2 In 2017, the IHLG published the report on aviation benefits, which considered airport development and expansion as a key enabler of development. Airports are a capital-intensive business. If

airport infrastructure improvements cannot follow the pace of expected demand growth, by 2030, congestion in the 100 largest airports of the world will cause the loss or re-routing of at least 1,200 million passengers (*i.e.*, about 20% of the demand) to other less appealing airports. This same scenario is currently occurring at some airports of the SAM Region.

1.3 Airport planning has been an important topic in the SAM Region for decades. As the Secretary General of ICAO said when inaugurating the IATA-FIDAE Wings of Change conference in 2014, the topic also raises some important questions on how well prepared is Latin America to manage air traffic growth, leading to one of the priorities of the region: infrastructure bottlenecks related to airport capacity. Furthermore, the International Air Transport Association (IATA) has actively addressed the need for States to ensure an optimum infrastructure to enable growth.

1.4 At present, the States still face challenges. As recognised by the Aerodrome Design and Operations Panel (ADOP), due to increasing airspace capacity resulting from the efforts made by States and ANSPs, airport capacity needs to be urgently increased. Accordingly, there is a need for a coordinated phraseology related to the development of master airport plans, their alignment with State and regional priorities, recognising the importance of a systematic and consultative approach for long-term airport expansion, improving safety and efficiency of aircraft operations, while increasing capacity.

## **2. Rationale**

2.1 There is a lack of airport infrastructure capacity in many of the major hubs in the SAM Region, which has led to an increase in costs, saturation, delays, inefficiencies, and loss of opportunities due to lack of space to operate. This goes against the national and regional desire to achieve the benefits of increasing air connectivity in the long term. This becomes especially important with increased airspace capacity derived from multiple improvements made in the SAM Region.

2.2 With a clear roadmap, enhanced regional guidance material, better knowledge and competencies in airport planning, States will be in a better position to plan and analyse the data for timely implementation of the required airport infrastructure projects. This will provide the necessary capacity to address demand, thus increasing connectivity with the State and providing for a safer and more efficient network. This increased connectivity will improve access by the general public to air transport and will foster regional development.

## **3. Proposal**

3.1 The Project seeks to analyse and validate the possible root causes of aerodrome capacity limitations in the SAM Region. It will deliver a plan with recommendations for the States on how to establish mechanisms for assessing and monitoring capacity/demand based on data, and draft their national airport plans in order to develop a high-level approach to support and orient the development and updating of the local airport master plan, taking into account the needs of the State and of the Region. Finally, the Project also proposes capacity- and competence-building at the State CAA regarding airport planning, with at least one (1) person in each CAA duly trained in airport planning by 2020. This person, designated by the member State as focal point, will be responsible for the implementation of the project in the State, together with the ICAO SAM Regional Office. To this end, the proposal is to provide a series of customised training courses on airport planning. This training will be defined based on the analysis and may be delivered by third parties.

3.2 A study case containing more details is shown in the **Appendix** to this information paper (English only).

**4. Suggested action**

5.1 The Meeting is invited to:

- a) take note of the information provided in this paper;
- b) give feedback to the Secretariat on better ways to develop the proposed project;  
and
- c) agree on any other action it may deem appropriate.

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## APENDICE / APPENDIX

# Airport Planning in the SAM Region - Business Case

<b>Project Name:</b>	Airport Planning in the SAM Region		
<b>Date:</b>	13/10/2017	<b>Release:</b> 16/11/2017	Draft
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## Revision History

**Date of next revision:**

Revision Date	Previous Revision Date	Summary of Changes	Changes Marked
13/10/2017		First edition of Business case in PRINCE2 format	
16/11/2017	13/10/2017	Review of projects benefits for clarity and other changes	no
16/03/2018		Change in the Document ID, small details exec sum, added some new identified risks and small changes in other areas	No (version w/track available)

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## Approvals

This document requires the following approvals. A signed copy should be placed in the project files.

Name	Signature	Title	Date of Issue	Version

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## Distribution

This document has been distributed to:

Name	Title	Date of Issue	Version

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## Overview

**Purpose** A Business Case is used to document the justification for the undertaking of a project, based on the estimated costs (of development, implementation and incremental ongoing operations and maintenance costs) against the anticipated benefits to be gained and offset by any associated risks.

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## **Executive Summary**

The Project proposes to analyze and validate the probable root-cause(s) for aerodrome capacity constraints in the SAM Region. It will deliver a plan with recommendations to States on how to establish mechanisms to evaluate and monitor capacity/demand based on data and prepare their National Airport Plans in order to establish a high level approach that supports and guides the development and updating of local airport master planning considering the needs of the State and Region. Finally, the Project also proposes to also build capacity and competences in State CAA's regarding airport planning by having at least one (1) trained staff in each CAA on airport planning by 2020. This Staff, assigned by the Member State as focal point for the project with ICAO RO, will be responsible to carry out the project per State in conjunction with ICAO's SAM Regional Office. To do this, it is proposed to develop a series of tailored training on airport planning to the Staff. This training will be determined by the analysis and may be delivered by third parties.

## **Reasons**

In the SAM Region there is a lack of airport infrastructure capacity in many important hubs that had led to increased costs, saturation, delays, inefficiencies, and loss of opportunity due to the lack of space to operate, thus acting against the common long-term national and regional interest of realizing the benefits of growing air connectivity.

With a clear roadmap, better regional guidance material, increased knowledge and competencies on airport planning, States will be on a better position to plan ahead and analyse data in order to execute the needed airport infrastructure projects on time. This will enable the needed capacity to cope with the demand, thus increasing connectivity to the State and to the network in a safe and efficient matter. This increased connectivity will give more access to air travel to the general public and foster the Region's development.

This solution is aligned with SAM Plan's Connectivity and Institutional Strengthening axis, and with ICAO's Capacity and Efficiency Strategic Objective.

## **Business Options**

### **1. Do nothing**

This option leaves the Region at the status quo: infrastructure deficiencies will continue to be the major capacity issue in the Region, and although some projects will be put in place to cope with air traffic demand, usually airport development projects are very large in scope and have a long time horizon from planning to completion, thus not delivering the needed capacity on-time. Also, the airport development projects may not respond to the State's or other stakeholders needs.

### **2. Deliver seminars on airport planning**

In this scenario, the Regional Office may deliver seminars and other type of training on airport planning to increase competences in States; however, as the gap analysis is not made and no framework or mechanism is established within the State and aligned with Regional realities, the results of the training may not be seen, as the staff participating in this type of activities are not usually full time working on airport planning matters.

### **3. Project on airport planning (Analysis-plan-training)**

This is the recommended option. By having Regional guidelines in coordination with international organizations and/or consultants on how to develop national airport plans and at the same time capacity building in States thru well prepared and trained Staff, States will be on a better position to establish mechanisms and frameworks to develop quality aviation infrastructure commensurate with the level of predicted traffic growth and based on Regional and Global Plans. These frameworks will be aligned with the Regional Airport Planning initiatives and will facilitate the ICAO SAM Regional Office to follow up with States in order to predict and avoid capacity constraints in the system.

## Expected Benefits

- States will have the tools to implement a mechanism to evaluate capacity/demand based on available data in order to make better decisions to trigger airport infrastructure needs.
- States will have the capabilities to prepare by themselves or thru third parties (using guidance material as baseline for the study terms of reference) National Airport Plans that establishes a high level approach and mechanisms that ensures that Airport Master Planning considers all stakeholders and that are commensurate with the level of predicted traffic growth and based on Regional and Global Plans
- States will have access to high quality training at lower cost.
- Capacity building in States to actively participate in the airport planning process, review airport operator's master plans, engage on national airport master plans and facilitate interaction between stakeholders in the State.
- Each Member State will have a trained, local airport planning point of contact, in order to work in better coordination with ICAO's SAM Regional Office.
- In the long term, each State will have a national airport plan that will allow local airport master plans to be aligned to the country they serve.
- Regional network of airport planners

## Expected Dis-benefits

- The time for staff to be trained may avoid this staff to be doing their regular activities within the CAA.
- More workload to States and RO.

## Timescale

The implementation of the Project will be defined by phases.

- Phase 1: Gap Analysis and high level recommendations (draft framework document) for implementation mechanisms (5 months).
- Phase 2: Creating State regional network of airport planners: will begin with a Project's Kick Off meeting and continue with on-going mechanism (teleconferences, meetings, etc.) to validate the document and publish it (7 months).
- Phase 3: Training and implementation in States: depending on determined training needs, carry out training plan and implementation on each State (24 months).

## Costs

Initial cost is estimated at US\$80,000 for experts' missions, kickoff meeting and framework document. Training costs will vary and be determined depending on the required level of training and recommendations by specialists.

## Major Risks

- Staff assigned by State may not be with the required initial competencies  
*Mitigation: survey States and put initial requirements for the focal point*
- Lack of interest from States  
*Mitigation: due diligence and explain properly the project's benefits. Relate to SAM PLAN pillars/objectives*
- The implementation of final solutions (such as the inclusion of a more robust State and other Stakeholders view on the review of airport master plans) may be seen as a threat for current concession agreements and/or may not be possible to implement because of contractual matters.

*Mitigation: actively involve organizations such as ACI to gather the stakeholder concerns and include them on the plan. Also, get advice from a legal perspective on how to deal with these scenarios.*

- Not getting the support (funding) for the project.

*Mitigation: involve international organizations that may be interest in the development of the region's aviation in order to explain the benefits of better planning of airport infrastructure.*

- Staff assigned by State will abandon the CAA after training  
*Mitigation: align with SAM PLAN Institutional Strengthening.*