



AFRICAN CIVIL AVIATION COMMISSION (AFCAC)

Regional workshop on AFI GNSS/SBAS (Virtual)

4 - 5 March 2021

- ❖ Introduction
- ❖ Activities being conducted by AFCAC in areas of Air Navigation
 - ❑ Independent Cost Benefit Analysis for the Implementation of GNSS/SBAS in Africa
 - ❑ Creation of the Platform of African Air Navigation Service Providers
 - ❑ Continental Air Navigation Master Plan to support the Single African Air Transport Market (SAATM)
- ❖ Conclusion



Introduction

The African Civil Aviation Policy (AFCAP), stipulates that:

“AU and AFCAC shall make concerted efforts towards the establishment of a single African Airspace”

“AFCAC shall facilitate collaboration among African Air Navigation Service Providers to expedite the establishment of a single/seamless airspace”

“African ANSPs are encouraged to come together preferably under one Pan African umbrella organisation/ association to coordinate their views and interests and foster harmonized implementation of the AFCAP. In the interim, the ANSPs may coordinate their regional activities through the CANSO-Africa”

Introduction

The Assembly of Heads of State and Government of AU :

- ❑ Decided the establishment of the Single African Air Transport Market (SAATM)
- ❑ Directed the African Union Commission to work on a framework of establishing the Single African Sky Architecture by 2023 that will strengthen aviation safety, security as well as ensure efficient and harmonised seamless air navigational and communication systems

- ❑ One of the major issues in future air navigation systems in the African continent, being the space-based navigation systems
- ❑ The introduction of GNSS in the AFI region was adopted by APIRG through the development of a Continental Strategy
- ❑ AUC Sectorial Technical Committee (STC) on Transport Infrastructure recommended AUC to support the introduction of GNSS in Africa
- ❑ AUC delegated AFCAC to develop the Terms of Reference (ToRs) for an independent Cost/Benefit study on the development of SBAS in Africa

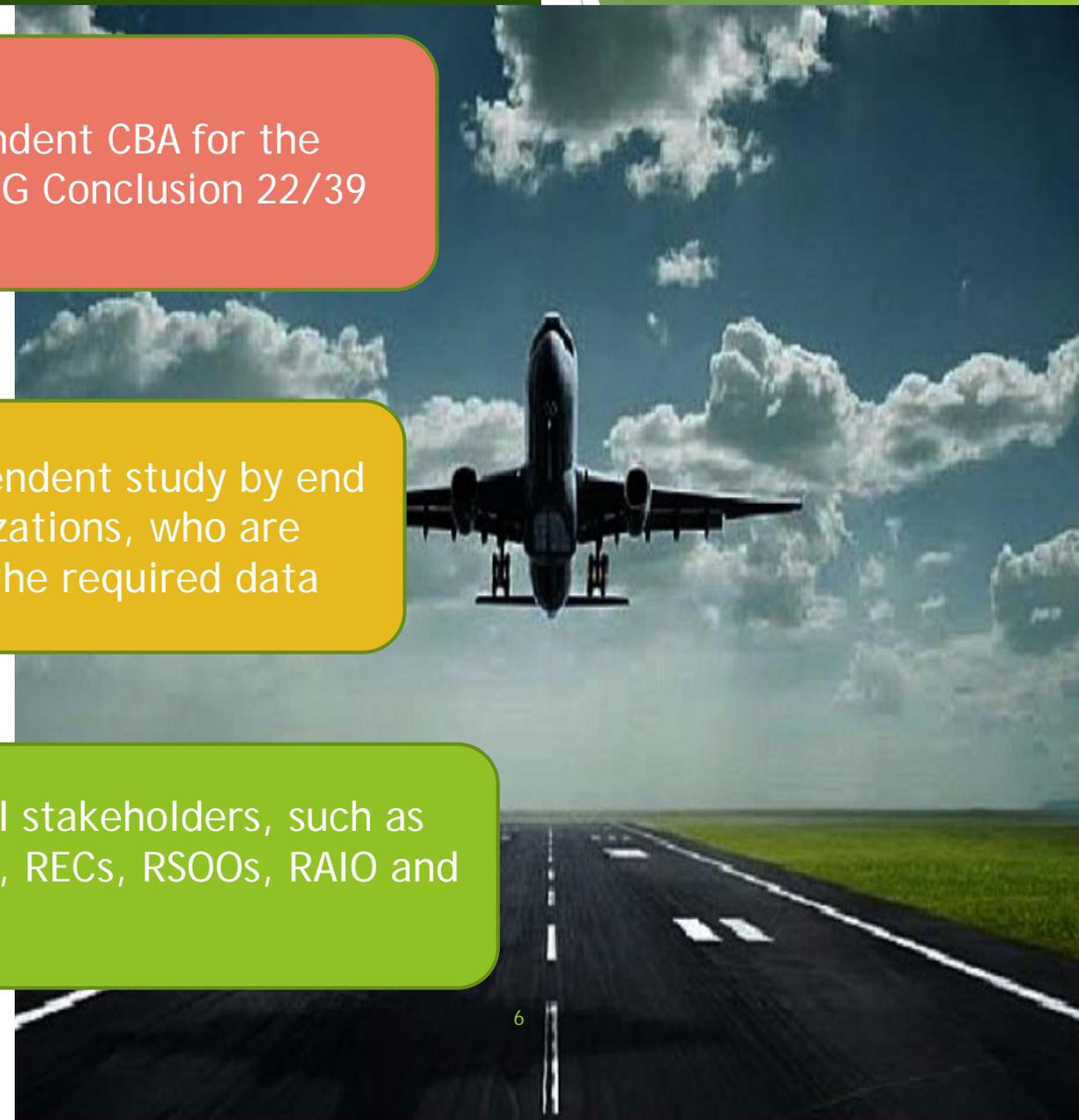


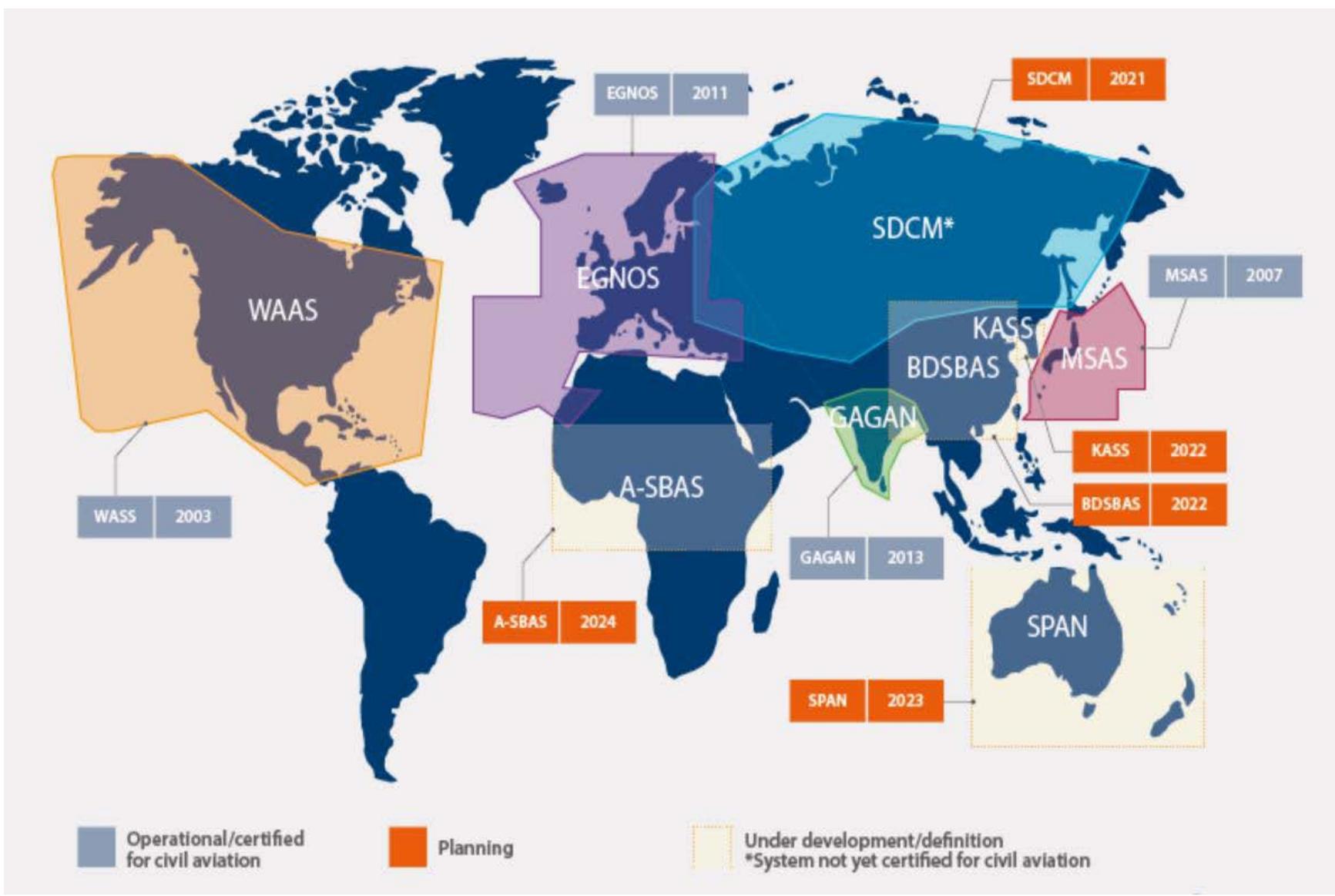
Activities of AFCAC in areas of Air Navigation

AUC and AFCAC are launching very soon an independent CBA for the deployment of SBAS in Africa in accordance with APIRG Conclusion 22/39

AUC and AFCAC will provide the outcome of the independent study by end of June 2021 with the support of States and Organizations, who are strongly encouraged to provide the consultant with the required data

A continental workshop will be organized involving all stakeholders, such as African CAAs, airspace users, ANSPs, JPO, AFCAC, ICAO, RECs, RSOOs, RAIO and AUC





Regional Initiatives for GNSS implementation

Details of the Independent CBA

- ❑ The independent CBA will be launched early 2021 and completed by end of June 2021
- ❑ the results of the study will be presented to all stakeholders for validation: Continental Workshop for validation be organized
- ❑ It is expected that APIRG Strategy for the introduction of GNSS services in the AFI Region will be updated accordingly
- ❑ Administrations and Organizations including the industry are encouraged to cooperate by providing raw data that will be collected by the consultant to conduct the CBA

Details of the Independent CBA

- ❑ The overall objective of the independent CBA is to investigate the related public and industry benefits and costs/impact of SBAS/GNSS implementation in Africa as a whole.
- ❑ The specific objectives are to:
 - Undertake a Cost Benefit Analysis (CBA) for all domains of SBAS applications, taking into account existing and planned initiatives related to SBAS provision on the continent
 - Investigate the potential governance and institutional schemes for SBAS provision and use in Africa

The scope of work includes :

- ▶ data gathering,
- ▶ Scope of work will include review of relevant documentation and cost/benefit analysis of SBAS/GNSS implementation in Africa for all sectors of application, including aviation, maritime, rail, road, agriculture, surveying and location-based services
- ▶ The study will be based on the planning horizon of 30 years by considering the current situation of service provision to the future situation in each AFI airport

Details of the Independent CBA

Specifically, the consultant shall undertake the following tasks:

- Data Collection and General Assessment Studies
- Cost and Benefits Analysis accruing due to aviation application
- Demand for non-aviation SBAS/GNSS application and implication on CBA
- Governance and Institutional Issues
- Feasibility study of African SBAS/GNSS technology transfer and Risk Assessment
- Organisation of a continental workshop with all Stakeholders

Details of the Independent CBA

Concerning Aviation Sector analysis, the Independent Cost-Benefit Analysis (CBA) shall cover:

- All oceanic and continental airspace under African Union Member States jurisdiction,
- All operations: PBN, ADS-B, etc.,
- All phases of flight from En-route down to CAT-I,
- All airports, aerodromes, airfields and heliports,
- All aircraft and rotorcraft operators, including commercial, regional, business and general aviation.

Details of the Independent CBA

- ❑ AFCAC is in charge for the executive management of the Independent CBA and will be assisted by a Project steering Committee, composed of all Stakeholders that participated in the development of the TORs
- ❑ Member States and Designated Organizations are encouraged to continue providing necessary information to AFCAC for the proper conduct of the Independent Study by the Consultant
- ❑ ICAO will support AFCAC through relevant working groups on the evaluation of the project deliverables, including the appropriate methodology for economic impact analysis by the consultant

Platform of African Air Navigation Service Providers

- ❑ AFCAC is championing the establishment of a Platform of African Air Navigation Service Providers and its inauguration meeting will be organized in first quarter 2021;
- ❑ The main objectives of the Platform are:-
 - A. Enable and facilitate a forum for Air Navigation Service Providers (ANSPs) discussions and coordination, to promote efficiency on air navigation services and a uniform level of safety for air navigation service providers in Africa
 - B. Recommend a framework for establishment of a continental ANSP Master Plan
 - C. Foster enhanced quality of service in air navigation in the spirit of the Almadies/Dakar Declaration (2002), Gauteng Declaration (2005) and Cotonou Declaration (2010) adopted by previous regional meetings of African ANSPs
 - D. Recommend a framework for establishment of a seamless airspace in Africa in accordance with the relevant AFCAP provisions and AU Assembly decision.

Platform of African Air Navigation Service Providers

Activities of the African ANSP Platform:-

- a) Support and promote appropriate and harmonized regional initiatives (such as the Abuja Safety Targets and the African ANSPs Peer Review Mechanism) in order to increase the Effective Implementation of Safety by African ANSPs including the level of compliance to ICAO SARPs and other Regional Plans;
- b) Promote uniform and effective implementation of ICAO GANP and GASP through harmonized regional programs;
- c) Establish a framework for a continental ANSP Master Plan;
- d) Establish a framework for a seamless airspace in Africa;
- e) Determine a mechanism to develop, maintain and update harmonized regulations in Africa;

Platform of African Air Navigation Service Providers

- f) Identification of priority areas for technical assistance, agree and harmonize necessary interventions;
- g) Advocate best practice in efficient ANSP services delivery to minimise user's costs;
- h) Discuss emerging issues that affect aviation safety & security and develop harmonized approach for Africa;
- i) Advocacy for planning of regional human resources capacity building and training

Platform of African Air Navigation Service Providers

The inauguration of the Platform meeting will be organized in first quarter 2021 to elect the Chairperson and Vice Chairperson with following responsibilities:

- ❑ The Chairperson reports progress of the African ANSP Platform at the Annual Coordination meeting between ICAO (ESAF & WACAF) Regional Offices and the African Civil Aviation Commission (AFCAC), African Union (AU), Regional Economic Communities (RECs) and Regional Safety Oversight Organizations (RSOOs)
- ❑ The Chairperson reports progress of the African ANSP Platform at the ICAO AFI Week under the AFI Plan meeting
- ❑ The Chairperson reports progress of the African ANSP Platform at the AFCAC Plenary

Continental Air Navigation Master Plan to support the Single African Air Transport Market (SAATM)



Continental Air Navigation Master Plan to support SAATM

PILLAR 4 OF THE JOINT PRIORITIZED ACTION PLAN : AVIATION INFRASTRUCTURE

- ▶ Planning for future traffic growth
- ▶ Establishment of Single African Sky Architecture
- ▶ Establishment of a continental platform for ANSPs to consider ongoing initiatives in the development of a Seamless Airspace architecture
- ▶ Enhancement of quality of service in air navigation in the spirit of the Almadies/Dakar Declaration (2002), Gauteng Declaration (2005) and Cotonou Declaration (2010)

Conclusion

AFCAC is committed to complete the following activities:

- ▶ Update and promotion of the AFCAP including the space-based air navigation systems supporting the GNSS
- ▶ Finalize the independent CBA for SBAS implementation in Africa
- ▶ Encourage African ANSPs to come together for the establishment of the African single and seamless airspace
- ▶ Support the development of Continental Air Navigation Infrastructure aimed at anticipating the traffic growth expected with the operationalization of the SAATM



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Thank You