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UNITING AVIATION

Regional workshop on AFI GNSS/SBAS

Implementation of conventional Nav aids and GNSS (Core and Augmented) aimed at enabling the implementation of PBN

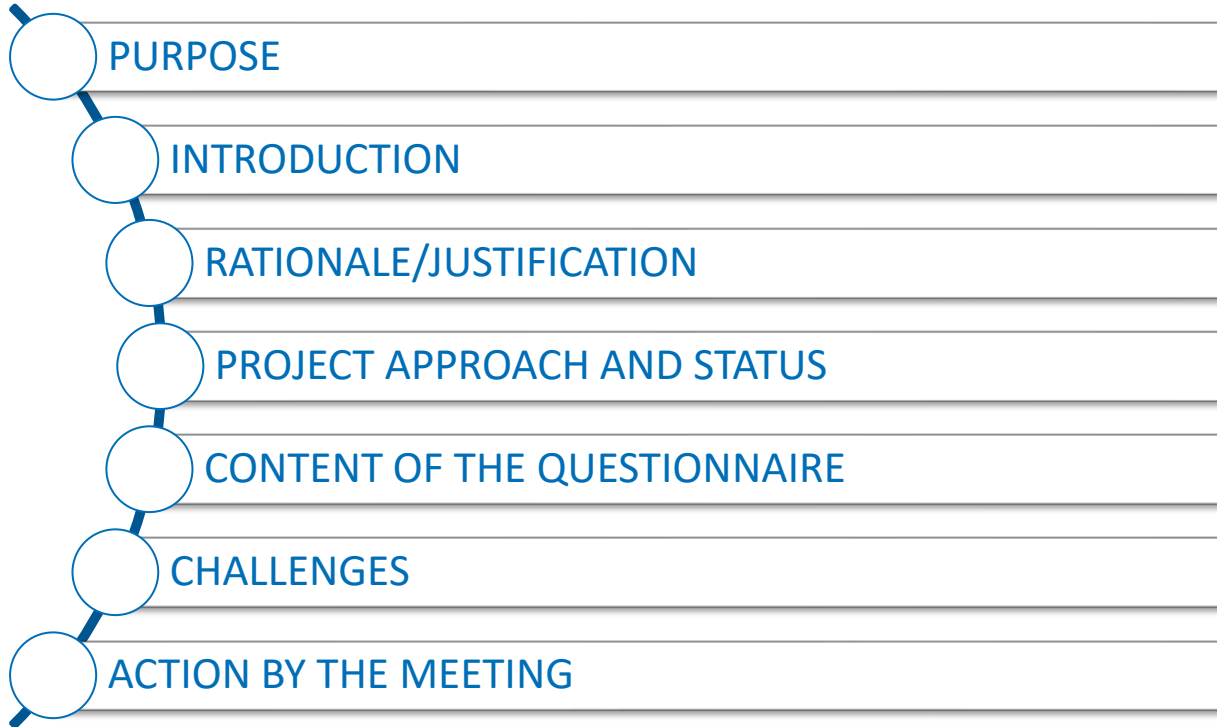
Regional workshop on AFI GNSS/SBAS, 04 – 05 march 2021

Presented by: Cameroon on behalf of the Nav Project Team



Regional workshop on AFI GNSS/SBAS

Headline





Purpose

- Provides the progress made by the IIM SG Radio Navigation & GNSS project
- Elaborates the achievements, challenges encountered by the team
- Present the expectations of the team to go forward with the project and possible recommendations.



Introduction

Following the change of working method of APIRG into project approach, a number of project teams were formed and approved by APIRG, including the Radionavigation & GNSS project team.

- The objectives of the team were to assist States in the implementation of Aeronautical Navigation Service by the effective implementation of:
 - Aeronautical conventional Radio Navigation Systems (VOR, DME ILS);
 - Global Navigation Satellite systems (GNSS-core and augmented), in accordance with the operational requirements of ICAO **Annex 10 Volumes I**, **Annex 11** Air Traffic Service and the relevant supporting guidance documents (**Doc 8071** Manuel on Testing of Radio Navigation Aid, **Doc 9849** Global Navigation Satellite System (GNSS) Manual.





Introduction

Scope of our work

The provision of aeronautical Radio Navigation and Global Navigation Satellite Systems to aircraft to cover all Airspaces and all phases of flights.

Project team

Composed of ANS experts from the following States and organizations:

Cameroon, Côte d'Ivoire, Senegal, Kenya, Mauritania, South Africa, Uganda, IATA and ASECNA.





Rationale / Justification



Conventional Radionavigation

The requirements are contained in the **AFI Air Navigation Plan (ANP), FASID TABLE CNS 3** (Radionavigation Aids and GNSS in support of the PBN Implementation).



GNSS

The operation of core GNSS En-route in continental remote and oceanic airspaces will enable the implementation of Air Nav and RNP and facilitated the implementation of PBN with all its expected benefits.



Project approach and status

- The work of the project team has mainly been by **electronic mail** and **telephone exchanges**
- In the scope of this project, it was found necessary to carry out a **survey of existing radio navigation and GNSS infrastructure** in the AFI region to establish a baseline for work.
- In order to make progress with the survey, the team has decided to **develop a questionnaire** aiming to **gather information on the deployed radionavigation and GNSS infrastructure**, and to assist in identifying the availability and reliability of these systems in the AFI region
- At this stage, this questionnaire has been **finalized and sent to ICAO for the States.**



Purpose of the questionnaire

- Ensure that AFI States have promulgated National Regulations related to Global Navigation Satellite System (GNSS)
- Capture and identify the aerodromes in AFI States have implemented GNSS Augmentation Systems (GBAS/SBAS)
- Check and identify the aerodromes in the AFI States where Global Navigation Satellite system (GNSS) procedures are developed and implemented
- Verify that AFI States have promulgated National regulations related to PBN operations



Purpose of the questionnaire

- Verify that AFI States have developed and published a Performance Based Navigation (PBN) implementation Plan
- Check if there are fleet operating GNSS En-Route registered in AFI States
- Find out the number of fleet operating Augmented GNSS in Approach and landing phases are registered in AFI States
- Establish the number of Aircraft equipped with ABAS, GBAS and/or SBAS



Challenges

- The challenges faced by the project team are mainly related to:



Collect and evaluate the filled in questionnaire, and



Establish the project baseline through information from AFI States.



Action by the meeting



- The meeting is invited to:
 - Take note of the information provided in this presentation, in particular the progress of the project.
 - Note the difficulties encountered by the project and identify any possible solutions with other IIM projects.
 - Encourage states/ANSPs to kindly provide responses to the questionnaire as soon as possible for the team to make progress.



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