



सत्यमेव जयते

नागर विमानन मंत्रालय, भारत सरकार
MINISTRY OF CIVIL AVIATION, GOVERNMENT OF INDIA



ICAO APAC SBAS-GBAS IMPLEMENTATION WORKSHOP FOR AIRSPACE USERS

"Enhancing airport accessibility and safety on final approach with SBAS and GBAS"

14th to 16th October 2025
Bengaluru, India



Training of Air Traffic Controllers on SBAS/GBAS procedures implementation

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Learning Objectives

Principles, Functionalities of SBAS/GBAS, Procedural changes & operational requirements for ATC

Simulator Training

Realistic simulation

Degraded Mode handling

Contingency operations

Classroom Training

Fundamental Concept

Basic System Architecture, Benefits

Regulatory requirements, procedures & ATC phraseology

Annual Refresher/Monthly Sensitization

Discuss on interference/Outage/Spoofing

Analyse different case studies

Learning Objectives

1. Understand the principles, functionalities of SBAS & GBAS
2. Learn how augmentation systems enables precision approaches & improve safety/reliability in various flight phases.

Learning Objectives

3. Understand the procedural changes and operational requirements for ATC during SBAS/GBAS approaches
4. Develop skills for normal operations, degraded mode operations & contingency planning

Classroom Training

1. Fundamental concept of SBAS/GBAS
2. Basic System Architecture of SBAS/GBAS
3. Different SBAS/GBAS Systems in the world

Classroom Training

4. Regulatory requirements

5. Operational benefits

6. SBAS/GBAS procedures

Classroom Training

7. ATC Phraseology

8. Contingency & Degraded Mode of operation

Simulator Training

1. Realistic simulation of SBAS/GBAS Approaches including LPV
2. Scenario exercises for degraded mode of handling & contingency operations

Station Based Refresher Training/ Monthly Sensitization.

1. Discuss the outages/interference/spoofing of SBAS/GBAS
2. Analyse the different case studies & contingency procedures on handling of GNSS interference.(Surveillance environment & non-surveillance environment)
3. Discussion on Reporting procedures



Thank You!