



# Solution #55 — Precision approaches using GBAS CATII/III

This SESAR Solution aims at improving Low Visibility Operation using GBAS Cat II/III based on single frequency signals.

The main benefit is the increased runway capacity in poor weather conditions as the glide path and azimuth signals will face hardly any interference from previous landing aircraft or other obstacles.

More sustained accuracy in aircraft guidance on final approach.

The GBAS (Ground Based Augmentation System) is a precision approach system relying on GNSS signals and composed of ground and airborne segments. GBAS supports enhanced level of service for all phases of approach, landing and departure.

GBAS CATII/III based on L1 single frequency signals is the outcome of the extensive work in SESAR WP9 and 15 in addition to project 6.8.5 involving main European ground systems manufacturers and airborne industry. The solution is based on the existing single frequency signals and is considered as an initial GBAS CAT II/III solution as the final solution should make use of multi-constellation multi-frequency signals.

The GBAS CATII/III L1 system should enable:

- Automatic Approach and Landing down to Cat IIIb minima for Mainline Aircraft
- Automatic roll-out, DH < 50 ft down to no DH & RVR between 50m and 200m
- Automatic Approach and Landing down to Cat II or Cat IIIa minima for Business and Regional Aircraft

- 50 ft < DH < 200 ft & 200 m < RVR < 550m

- CAT IIIb considerations for Business Aircraft for possible future use

Guided take-off is integrated in the reflexion

Program SESAR1

Need for coordination Network

Related to -

Date V1 Gate -

Date V2 Gate -

Date V3 Gate -

Deployment Start Date 31-12-2017

Benefits Start Date (IOC) 31-12-2025

Full Benefit Date (FOC) 31-12-2035

## Context

### Related Elements

EOC  
CNS...

SOL  
#55

DS  
CNS  
rationalisation

OI  
AO-0505-A

B1

ICAO  
B1-APTA

