

# Discussion on the extension of the mandate of the Task Force

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# History of APAC GBAS/SBAS Implementation Task Force

1) GBAS SBAS Implementation workshop on 3-5 June 2019, Seoul, ROK

<p>2) <b>Decision CNS SG/23/9 (WP/21) - ESTABLISHMENT OF THE APAC GBAS/SBAS ITF</b></p>	
<p>What: Recognizing the recent development and implementation of Ground-Based Augmentation System (GBAS) and Satellite-Based Augmentation System (SBAS) in the Asia and Pacific Region, That, the Asia/Pacific Ground-Based Augmentation System (GBAS)/Satellite-Based Augmentation System (SBAS) Implementation Task Force (APAC GBAS/SBAS ITF) with the Terms of Reference in <b>Appendix J</b> to this Report be established under the CNS Sub Group of APANPIRG.</p>	<p>Expected impact:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Political / Global</li> <li><input type="checkbox"/> Inter-regional</li> <li><input type="checkbox"/> Economic</li> <li><input type="checkbox"/> Environmental</li> <li><input checked="" type="checkbox"/> Ops/Technical</li> </ul>
<p>Why: Recognizing benefits including safety enhancement of GBAS/SBAS implementation, the need for a regional supporting body has been raised in the region. The task force will support States who want to implement GBAS/SBAS but have difficulty in proceeding projects because of lack of expertise and resources. The scope of work includes, but not limited to, addressing major issues, monitoring the global development, sharing trials and implementation experience, and developing relevant guidance materials with reference to international/regional best practices for GBAS/SBAS deployment in the APAC Region.</p>	<p>ITF ToRs</p> <p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 6-Sep-19</p>	<p>Status: Adopted by Subgroup</p>
<p>Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: ICAO APAC RSO</p>	

# History of APAC GBAS/SBAS Implementation Task Force

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## 1. Meetings :

- #1 (Jun 2020, VC), #2 ( Sep 2020, VC); #3 ( Sep 2021, VC); #4 (May 2022, VC); #5 (Jun 2023, Tokyo); #6 (May 2024, Bangkok); #7 (May 2025, Bangkok); and #8 (May 2026, Melbourne)

## 2. Workshop :

- 14-16 Oct 2025 in Bengaluru, India

## 3. Methodology :

- Brainstorming to identify all the tasks
- Production of several deliverables
- Sharing of knowledge and experience

SBAS CAT-1 has large benefit for small airport which can't be installed ILS CAT-1 in view of Benefit/Cost, so I think some countries have many islands and many small airports would receive benefit from SBAS CAT-1. But, this view from already SBAS provide country, so if in the future some framework that multi country (ANSP) could use other SBAS, this benefit will expand many countries.

additional benefit:  
No RAM, No ADS-B hole

GBAS Expected Benefits for Airspace users:  
reduced air traffic controller workloads  
reduced time and distance in the terminal area leading to fuel savings

# SBAS Implementation Task Force/1

we need information on GBAS System price compare to ILS system

Increase in available time slots due to significant reduction in Flight Inspection requirements compared to ILS

APV I (DH=250 ft)

SBAS CAT I (DH=200 ft)

GBAS CAT I (DH=200 ft)

GBAS CAT II

GBAS CAT III

Reduce impacts of weather conditions on airport capacity

Others :

Also susceptible for GPS signal interruption

Less Infrastructure As compared to terrestrial Nav-aids.

Support multiple approaches

Expect no runway holding due to critical and sensitive area improving flow rates

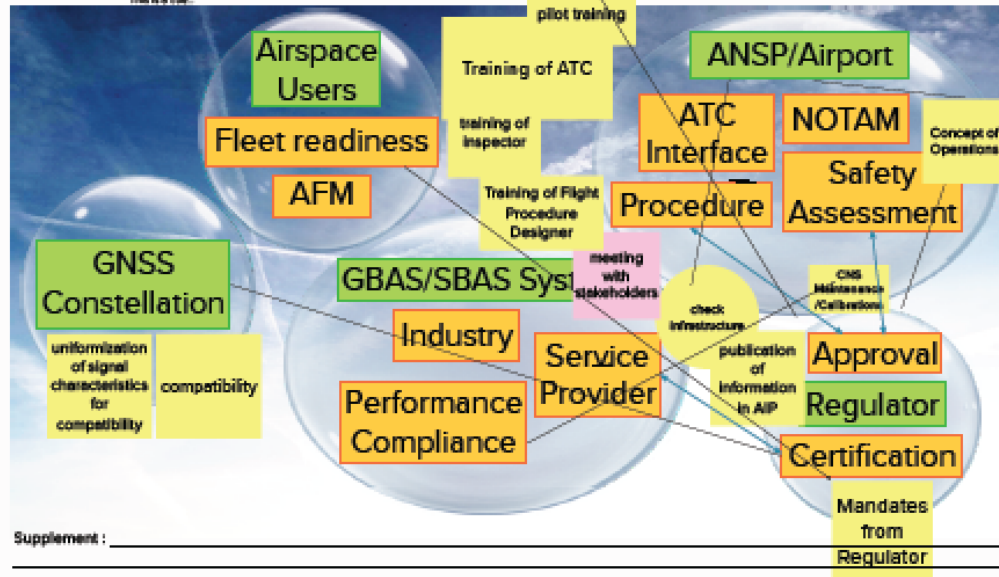
Less susceptible to interference from buildings, vehicles and terrain resulting in stable approach paths

**SBAS Benefits to Airspace users**  
Enables Seamless Navigation category I approach for all qualified airports within an SBAS coverage area.  
Time saving and fuel saving  
Allows increase airspace capacity provides a capability for vertically guided approaches to non-instrumented runways, providing significant improvement to operational safety that was previously unavailable.  
SBAS is not sensitive to temperature fluctuations and has no barometric / temperature limitations.  
ILS like display in the cockpit  
Reduce delays, diversions, and cancellations

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## Functional Analysis :

- Add/modify any boxes to ensure all implementation tasks are addressed for GBAS and SBAS on the same drawing.
- Connect the tasks with arrows, as necessary.

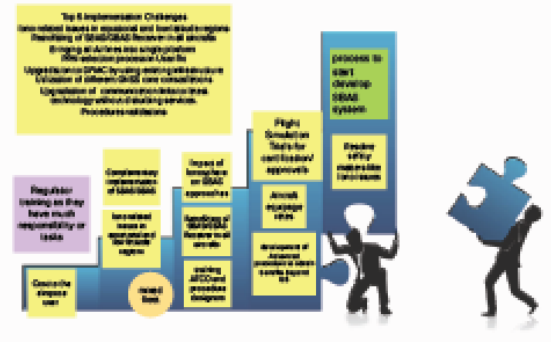


- Describe each task and highlight difference between GBAS and SBAS:

Fleet readiness :	All A/C are to be fitted with SBAS/GBAS Rx and pilots trained to use GNSS-based approaches
AFM (Airplane Flight Manual) :	Industry/Manufacturer of Rx, users etc. SBAS: industry covers in large scale, GBAS users are limited.
Industry :	SBAS requires a service provider
Performance com	Single Rx to work with both
Service provider :	performance Complying to ICAO standards
ATC interface :	SBAS: interface required to be given to many ATC
Procedure :	Notice to Airmen (NOTAM) system is to provide notification of performance-based SBAS outage information to pilots during flight planning and to air traffic control.
NOTAM :	State authority will certify the SBAS/GBAS systems after getting verification of all certification documents submitted by ANSP provider.
Safety assessment :	Approval facility by states regulator after assessing in respect of safety, performance and validation of procedures
Approval :	
Certification :	

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## Top 5 Implementation Challenges:



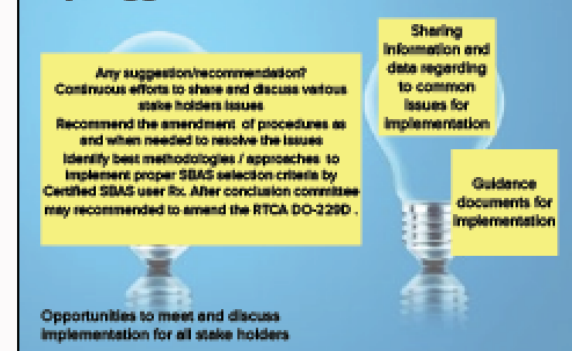
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## What do you need?



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## Any suggestion/recommendation?



# What is left to be done within ITF?

1. All tasks in ITF Action List have been completed, except those related to regulator, but this could be done at national level
  2. Deliverables under ToRs have substantially been completed.
  3. Is there any new task(s)?
    - Regular reporting on GBAS and SBAS system development
    - GLS/LPV procedure deployment,...
    - Aircraft readiness
- => All could be addressed within PBNICG meetings, with a dedicated agenda item

# Draft Decision to be submitted to CNS SG in July 2026

<b>Draft Decision 08/01 - Dissolution of the GBAS/SBAS Implementation Task Force (GBAS SBAS ITF)</b>	
<p>What: That :</p> <p>1) the GBAS/SBAS ITF be dissolved as all the expected deliverables have substantially been completed as per GBAS SBAS ITF ToR (GBAS implementation guidance, SBAS implementation guidance,...)</p> <p>2) the GBAS &amp; SBAS topic be added as a regular agenda item of the PBNICG meeting.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: Successful Completion of deliverables assigned to GBAS SBAS ITF</p>	<p>Follow-up: <input type="checkbox"/> Required from States</p>
<p>When: 14 May 2026</p>	<p>Status: Draft to be adopted by CNS SG</p>
<p>Who: <input checked="" type="checkbox"/> CNS Sub group <input type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other:</p>	



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Thank You!