

Applicable & Reference Documents for GBAS-SBAS Implementation

Global Strategy - Global Air Navigation Plan (Doc 9750)

<https://www.icao.int/airnavigation/Pages/GANP-Resources.aspx>

Regional Strategy - Asia/Pacific Seamless ATM Plan (V3.0) -

<https://www.icao.int/APAC/Documents/edocs/Asia%20Pacific%20Seamless%20ATM%20Plan%20V%203.0.pdf>

System requirements and testing –

1. Annex 10 Vol I - Radio Navigation Aids
2. ICAO Doc 8071 Vol II - Testing of Satellite-based Radio Navigation Systems
3. EUROCAE ED114B
-Minimum Operational Performance Standards (MOPS) for GBAS ground facility
[ED-114B - MOPS For Global Navigation Satellite Ground Based Augmentation System Ground Equipment To Support Precision Approach and Landing - Eurocae](#)
4. FAA Order 6884.1
-GBAS ground facility siting criteria- [6884_1.pdf \(faa.gov\)](#)
5. SL 2019/87 from ICAO to States
- SBAS channel number management
6. RTCA DO229F
-Minimum Operational Performance Standards for Global Positioning System/Satellite Based Augmentation System Airborne Equipment
[RTCA DO-229 - Minimum Operational Performance Standards \(MOPS\) for Global Positioning System/Satellite-Based Augmentation System Airborne Equipment | Engineering360 \(globalspec.com\)](#)
7. RTCA DO246E Change 1
GNSS-Based Precision Approach Local Area Augmentation System (LAAS) Signal-in-Space Interface Control Document (ICD)
[RTCA DO-246 - GNSS-BASED PRECISION APPROACH LOCAL AREA AUGMENTATION SYSTEM \(LAAS\) SIGNAL-IN-SPACE INTERFACE CONTROL DOCUMENT \(ICD\) CHANGE 1 | Engineering360 \(globalspec.com\)](#)
8. RTCA DO253D
Minimum Operational Performance Standards (MOPS) for GPS Local Area Augmentation System (LAAS) Airborne Equipment
[RTCA DO-253 - Minimum Operational Performance Standards for GPS Local Area Augmentation System Airborne Equipment | Engineering360 \(globalspec.com\)](#)
9. ICAO- GUIDE FOR GROUND BASED AUGMENTATION SYSTEM IMPLEMENTATION
[Guide for Ground Based Augmentation System Implementation \(icao.int\)](#)

10. GBAS safety assessment guidance related to anomalous ionospheric conditions
<https://www.icao.int/APAC/Documents/edocs/GBAS%20safety%20assessment%20guidance.pdf#search=ionospheric%20model>
11. SBAS safety assessment guidance related to anomalous ionospheric conditions
<https://www.icao.int/APAC/Documents/edocs/SBAS%20safety%20assessment%20guidance%20-anomalous%20ionospheric.pdf#search=ionospheric%20model>
12. GBAS Ionospheric Threat Model for APAC Region (APAC)
[APANPIRG Iono TM GBAS.pdf \(icao.int\)](#)

Procedure design and validation –

1. ICAO Doc 8168 Vol II - Construction of Visual and Instrument FPs
2. ICAO Doc 9906 Vol I – Flight Procedure Design Quality Assurance System
3. ICAO Doc 9906 Vol V - IFP validation
4. ICAO Doc 8697 – Specimen Charts
5. Satellite-Based Augmentation System Channel Assignment Tool (SBAS-CAT)
<https://www.icao.int/safety/OPS/OPS-Tools/Pages/SBAS.aspx>
6. EUROCONTROL SBAS FAS Data Block Tool-
<https://fasdb.eurocontrol.int/fasdb/app/about.htm>

Operations

1. ICAO Doc 8168 Vol I - Flight Procedures
2. ICAO Doc 9613 - PBN Manual
3. ICAO Doc 9849 - GNSS Manual
4. ICAO Doc 4444 - Air Traffic Management
5. ICAO Doc 9997 - PBN OPS Approval

Meetings & Workshops on GBAS-SBAS Implementation

ICAO APAC GBAS-SBAS Workshop 2019 Seoul, ROK

<https://www.icao.int/APAC/APAC-RSO/GBASSBAS%20Implementation%20Workshop/Forms/AllItems.aspx>

ICAO APAC GBAS-SBAS ITF-1

<https://www.icao.int/APAC/Meetings/Pages/2020-GBAS-SBAS-ITF1.aspx>

ICAO APAC GBAS-SBAS IF-2

<https://www.icao.int/APAC/Meetings/Pages/2020-GBAS-SBAS--ITF2.aspx>