



ICAO

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Ninth Meeting of the Aerodromes Operations and Planning Sub-Group (AOP/SG/9)

Bangkok, Thailand, 30 June to 4 July 2025

Agenda Item 3: Regional Reporting - Asia Pacific Seamless ANS Plan**ASIA/PACIFIC SEAMLESS ANS PLAN UPDATE**

(Presented by the Secretariat)

SUMMARY

This paper presents information on the proposed amendments to the expected implementation priority of the Navigation Systems (NAVS) module Block 0 elements in the *Asia/Pacific Seamless ANS Plan Version 4.0*.

1. INTRODUCTION

1.1 The Thirty-Fifth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/35) was held in Bangkok, Thailand, from 25 to 27 November 2024.

1.2 The APANPIRG/35 adopted the following Conclusion:

Conclusion APANPIRG/35-1: Asia/Pacific Seamless ANS Plan

That, given the urgency and priority of Air Navigation Service (ANS) planning and modernization, and the lack of progress in implementing the Aviation System Block Upgrade (ASBU) elements, Version 4.0 of the Asia/Pacific Seamless ANS Plan appended as Appendix A to the Report on Agenda Item 3.0 be adopted; and uploaded to the Asia/Pacific Regional Office eDocument webpage.

1.3 The *Asia/Pacific Seamless ANS Plan* provides the expected priority for implementation of ASBU Block 0, Block 1 and Block 2 elements, within the Asia/Pacific Region. The allocation of priority was based on factors including its importance in promoting Seamless ANS:

- **Priority 1** – critical upgrade assignment based on whether the implementation of an element could bring most benefit to the region or regional upgrade by States and is essential to achieve the service level required globally;
- **Priority 2** – recommended upgrade for those elements which would bring benefits to the region and generally to be implemented from 2022, but States are encouraged to implement earlier if beneficial; and
- **Priority 3** – assigned to those elements which may not be universally implemented in the Asia/Pacific Region

2. DISCUSSION

Proposed Amendments to NAVS Block 0 Expected Implementation Priority

2.1 Recognizing the existence of discrepancies in the prioritization of NAVS Block 0 elements within the published *Asia/Pacific Seamless ANS Plan Version 4.0*, compared to the priority approved by the CNS Sub-group, the ICAO Secretariat has presented this matter at the Seventh Meeting of the Asia/Pacific GBAS/SBAS Implementation Task Force (GBAS/SBAS ITF/7, Bangkok, Thailand, 14–16 May 2025) and the Twenty Ninth Meeting of the Communications/Navigation and Surveillance Sub-group of APANPIRG (CNS SG/29, Bangkok, Thailand, 16-20 June 2025).

2.2 This discrepancy may have resulted from editorial errors during the consolidation of extensive feedback obtained from multiple sources.

2.3 **Table 1** illustrates a comparison between the priority adopted by CNS SG/28 based on proposal from *CNS-related ASBUs Review Ad-hoc Group for the Next Edition of the Seamless ANS Plan*, and those published in the *Asia/Pacific Seamless ANS Plan Version 4.0*.

ASBU Element	Approved Priority by CNS SG/28	Priority Published in <i>Asia/Pacific Seamless ANS Plan Version 4.0</i>
NAVS-B0/1 to B0/4 SBAS, GBAS, ABAS, MON	Priority 1	Priority 2

Table 1: Comparison of CNS SG Approved Priority versus Published Priority

2.4 Acknowledging that the review of ASBU NAVS elements falls under the responsibility of the CNS SG, the ICAO Secretariat proactively prepared and submitted a working paper for consideration at the GBAS/SBAS ITF/7. This initiative was undertaken to solicit comments and feedback from navigation experts regarding the appropriate prioritization of the NAVS Block 0 elements prior to proposing amendments to the CNS SG.

2.5 Discussions and decisions from the GBAS/SBAS ITF/7:

- a) noting that some Asia/Pacific States/Administrations did not have access to Ground Based Augmentation Systems (GBAS) and Satellite Based Augmentation Systems (SBAS) systems, the GBAS/SBAS ITF/7 agreed to retain Priority 2 for NAVS-B0/1 GBAS and NAVS-B0/2 SBAS;
- b) noting the importance of Aircraft Based Augmentation Systems (ABAS) in supporting all performance-based navigation (PBN) navigations specifications, except RNP APCH down to LPV/LP minima, the GBAS/SBAS ITF/7 agreed that Priority 1 should be assigned for NAVS-B0/3 ABAS;
- c) acknowledging the concerns related to Global Navigation Satellite System (GNSS) radio frequency interference (RFI) events, which could posed a significant threats within the region, as well as the associated recommendations and action items from the Fourteenth Air Navigation Conference (AN-Conf/14, Montréal, Canada, 26 August – 06 September 2024) and the 59th Conference of Directors General of Civil Aviation, Asia and Pacific Regions (DGCA/59, Cebu, Philippines, 14 – 18 October 2024), the GBAS/SBAS ITF/7 agreed that Priority 1 should be assigned for NAVS-B0/ 4 Nav. MON; and

- d) acknowledging that not all ASBU NAVS Module Block 0 elements should be accorded with the same level of priority within the Asia/Pacific Region, the ICAO Secretariat proposed the subdivision of these elements from a consolidated 'Thread' (see **Table 2**) into discrete individual elements (see **Table 3**). This approach aims to ensure that each element is assigned an appropriate level of priority, which was subsequently agreed by the GBAS/SBAS ITF/7.

Functional Category	Element	Description	Priority	Responsibility for Review
Technology	NAVS-B0/1 to B0/4	SBAS, GBAS, ABAS, MON (PARS 7.5, 7.7)	2	CNS SG

Table 2: Priority Published in *Asia/Pacific Seamless ANS Plan Version 4.0*

Functional Category	Element	Description	Priority	Responsibility for Review
Technology	NAVS-B0/1	GBAS	2	CNS SG
	NAVS-B0/2	SBAS	2	
	NAVS-B0/3	ABAS	1	
	NAVS-B0/4	Nav. MON	1	

Table 3: Proposed New Priority

2.6 Following the consensus reached at the GBAS/SBAS ITF/7, ICAO Secretariat subsequently presented a working paper at the CNS SG/29, for CNS Sub-group further review and consideration.

2.7 CNS SG/29 agreed to the proposed amendments as per **Table 3** above.

2.8 In accordance with this agreement, ICAO Secretariat will incorporate these changes as a corrigendum to the existing *Asia/Pacific Seamless ANS Plan Version 4.0*. The corrigendum will be presented at the APANPIRG/36 meeting for endorsement. Upon endorsement, the corrigendum will be published on the ICAO Asia/Pacific Regional Office webpage, and the Seamless ANS Reporting Tool will be updated accordingly to reflect these changes.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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