

**61ST CONFERENCE OF
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AGENDA ITEM 4: AIR NAVIGATION

**STRENGTHENING REGIONAL COLLABORATION TO ADDRESS
GLOBAL NAVIGATION SATELLITE SYSTEM RADIO FREQUENCY
INTERFERENCE (GNSS RFI)**

(Presented by Indonesia)

SUMMARY

This Discussion Paper outlines Indonesia's efforts to strengthen national preparedness and regional collaboration in addressing Global Navigation Satellite System Radio Frequency Interference (GNSS RFI). It emphasizes the importance of active participation by States in developing harmonized regional approaches to enhance the resilience of international air navigation.

STRENGTHENING REGIONAL COLLABORATION TO ADDRESS GLOBAL NAVIGATION SATELLITE SYSTEM RADIO FREQUENCY INTERFERENCE (GNSS RFI)

1. INTRODUCTION

1.1 The increasing reliance on Global Navigation Satellite System (GNSS) has transformed the way international civil aviation operates. GNSS has become a critical enabler for Performance-Based Navigation (PBN), making the safety and efficiency of air navigation increasingly dependent on the availability and integrity of satellite-based services.

1.2 At the same time, incidents of GNSS Radio Frequency Interference (GNSS RFI), including jamming and spoofing, have become more frequent in many parts of the world. These incidents have demonstrated that GNSS RFI is no longer an isolated technical issue but an emerging aviation safety challenge with operational impacts extending across national boundaries.

1.3 Indonesia experienced one such event on 8 April 2026, when GNSS interference affected aircraft operating within the Jakarta Flight Information Region (FIR) during arrival and departure operations at Soekarno-Hatta International Airport. The event affected 44 commercial flights, resulting in degradation of GNSS-dependent systems and requiring Air Traffic Control (ATC) to implement contingency measures, including the use of conventional navigation procedures and radar vectoring to maintain the safety and continuity of flight operations.

1.4 This event highlighted the importance of preparedness, coordinated operational response, and timely information sharing. More importantly, it reaffirmed that GNSS RFI can't be effectively addressed by individual States alone but requires close collaboration among relevant stakeholders at both national and regional levels.

2. DISCUSSION

2.1 Recognizing the increasing occurrence of GNSS RFI and its implications for aviation safety, DGCA Indonesia has led the establishment of a coordinated national framework to strengthen Indonesia's preparedness and response to GNSS interference events. This framework brings together key stakeholders, including the Ministry of Communication and Digital Affairs as national spectrum authority, AirNav Indonesia as the national Air Navigation Service Provider (ANSP), aircraft operators, airport operators, and other relevant government agencies.

2.2 As a key outcome of this coordinated national effort, DGCA Indonesia issued DGCA Circular Letter No. 11 of 2026 on the Reporting and Management of Global Navigation Satellite System Radio Frequency Interference (GNSS RFI) to enhance awareness among national aviation stakeholders of the increasing occurrence and operational impacts of GNSS RFI, while promoting a coordinated national response. The Circular Letter supports the consistent implementation of existing national arrangements by promoting a common understanding of stakeholder roles and responsibilities, encouraging timely reporting and coordinated operational responses, and strengthening awareness of the importance of safeguarding the aeronautical radio frequency spectrum through compliance with applicable national regulations, including the operation of aeronautical radio stations under valid Radio Station Licences.

2.3 In parallel with these regulatory initiatives, Indonesia continues to strengthen the resilience of its air navigation system by ensuring the availability of contingency navigation capabilities during GNSS disruption. Conventional navigation infrastructure, including Instrument Landing Systems (ILS), VOR/DME, and DME/DME networks, is maintained and operated by AirNav Indonesia to support the continued safety of flight operations whenever GNSS services are degraded or unavailable.

2.4 Recognizing that GNSS RFI is inherently a transboundary challenge, Indonesia considers regional collaboration to be equally important as national preparedness. Indonesia therefore continues to actively participate in ICAO Asia and Pacific initiatives addressing GNSS RFI by sharing operational experience, lessons learned, and practical implementation perspectives.

2.5 Through this collaborative mechanism, Indonesia has enhanced the exchange of operational information, strengthened incident reporting and assessment, improved spectrum monitoring and investigation, and promoted coordinated mitigation measures. The framework has also fostered a common understanding of the roles and responsibilities of each stakeholder, enabling a more integrated and effective national response to GNSS RFI.

2.6 Strengthening collaboration today will ensure a safer, more resilient, and more trusted GNSS environment for the future of international civil aviation.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this Paper.

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