

# Tentative Program



नागर विमानन मंत्रालय  
MINISTRY OF CIVIL AVIATION



## ICAO APAC RADIO NAVIGATION SYMPOSIUM

GNSS RFI: Collectively Bridging Gaps and Shaping the Path Forward

7<sup>th</sup> – 9<sup>th</sup> April 2025 New Delhi, India



## Monday 7<sup>th</sup> April 2025

08:00- 09:30      Registration

09:30-10:30      Inauguration Session

10:30-11:00      ***Group Photo and Networking Break***

### **1. Setting the Scene**

*This session will explore global radio navigation developments, updates from the ICAO APAC Region, and GNSS vulnerabilities, providing a foundation for understanding current challenges and their implications for the aviation industry.*

**Session 1**  
11:00 -12:00

- **SP01-** ICAO provisions and global developments – ***Ms. Muna Alnadaf, ICAO HQ***
- **SP02-** Updates on activities done in the ICAO APAC Office on relevant topics – ***Dr. Soniya Nibhani, ICAO APAC Office***
- **SP03-** GNSS vulnerabilities and emerging threats – ***Mr. Gerhard Berz Eurocontrol***

12:00 -13:00      ***Lunch Break***

## 2. Addressing GNSS RFI – Challenges, Impact, Insights Gained, Best Practices and Recommendations

*Two panels will examine the operational and safety impacts of RFI on GNSS-dependent systems, address the consequences of flight operation and air navigation service, and highlight best practices, ongoing efforts, and recommended actions.*

### Session 2

13:00 – 14:45

#### 2.1 Panel Discussion on States and Regulators' Perspectives

- **SP04-** GNSS RFI in India: Challenges, Regulations, and Analysis thereof – **Mr. A K Tiwari and Mr. Vipin Pandey, India**
- **SP05-** GNSS RFI monitoring activity and information sharing in JAPAN – **Mr. Fukuda Makoto, Japan**
- **SP06-** GNSS RFI in Malaysia: Challenges and associated regulations – **Mr. Mohd Fitri Bin Ishak, Malaysia**
- **SP07-** GNSS RFI in Philippines – **Mr. Michael C. Rizada, Philippines**
- **SP08-** GNSS RFI in ROK: Challenges and associated Regulations – **Mr. Kyung Won Lee and Mr. Min Hyuk Son, ROK**

**Moderator:** *Ms. Muna Alnadaf, ICAO HQ*

14:45 – 15:15

**Networking Break**

### Session 3

15:15 – 17:00

#### 2.2 Panel discussion on aviation industries perspective

- **SP09-** GNSS RFI issues, challenges and mitigations in IndiGo Airlines – ***Capt. Abhas Gupta and Mr. Surinder Pal Singh Narli, IndiGo***
- **SP10-** GNSS RFI issues, challenges and mitigations in Thai Airways – ***Capt. Treekun Treeriya, Thai Airways***
- **SP11-** Airline Perspectives on GNSS RFI challenges, impact, best practices and recommendations – ***Mr. John Moore, IATA***
- **SP12-** Recommended Best Practices in Case of GNSS Interference- ***Mr. Ajit Mate, Boeing***
- **SP13-** GNSS RF Interference and Mitigation – ***Mr. Gerhard Berz Eurocontrol***

***Moderator: Dr. Soniya Nibhani, ICAO APAC Office***

**End of Day 1**

**Tuesday 8<sup>th</sup> April 2025**

### **3. Mitigating GNSS Interference: Current Measures and Gaps to Address**

*Two panels will be organized under this agenda to provide a comprehensive overview of existing mitigation strategies, identify gaps, and offer insights into what more needs to be done to address emerging challenges posed by GNSS RFI in terms of technological, procedural, and human-centric aspects of mitigation.*

#### **Session 4**

09:00 – 11:00

#### **Panel discussion on Technological aspects of mitigation**

- **SP14-** Innovation embedded in the new Nav aids and Surveillance systems: a priority to sustain the safety, resilience, reliability and accuracy of aviation – **Mr. Massimiliano FERLA, Thales**
- **SP15-** It's All About Time, Resilient Time—What, Why, and How—**Mr. Ken Alexander, USA**
- **SP16-** Evolving GNSS Resilience in Saudi Arabia: From Monitoring Limitations to a Future-Ready Mitigation Strategy—**Mr. Mohammad Mandora & Mr. Khalid Alhazmi, Saudi Arabia**
- **SP17-** GNSS Interference Monitoring – Technology Capabilities in the Context of the Asia Region – **Mr. Diego Albert, Aireon**
- **SP18-** Building Resilient GNSS Systems: Collins Aerospace – **Dr. Sai Kalyanaraman, Collins Aerospace**

	<b><i>Moderator: Mr. Gerhard Berz, Eurocontrol</i></b>
11:00 – 11:30	<b><i>Networking Break</i></b>
<b>Session 5</b> 11:30 – 13:00	<p><b>Panel discussion on procedural and human-centric aspects of mitigation</b></p> <ul style="list-style-type: none"> <li>- <b>SP19-</b> ATC phraseology and reporting in APAC – <b><i>Dr. Soniya Nibhani, ICAO APAC Office</i></b></li> <li>- <b>SP20-</b> ITU Regulations and Actions to Protect the RNSS from Harmful Interference – <b><i>Mr. Jorge Ciccorossi, ITU</i></b></li> <li>- <b>SP21-</b>ATSEP's Role in Detecting, Diagnosing, and Mitigating GNSS RFI for a Human-Centric ATM System – <b><i>Dr.Chilaka Mahesh, IFATSEA</i></b></li> </ul> <p><b><i>Moderator: Ms. Muna Alnadaf, ICAO HQ</i></b></p>
13:00 – 14:00	<b><i>Lunch Break</i></b>
<p><b>4. Risks Beyond GNSS: Lessons and Broader Threats to Satellite-Based Systems</b>  <i>This panel discussion will explore lessons learned from the challenges faced by GNSS and examine the risks posed to other satellite-based systems that share similar vulnerabilities. Panelists will also debate what lessons can be applied to safeguard the</i></p>	

*resilience of other satellite-based systems and what collaborative efforts and proactive steps are necessary to mitigate the growing threats to these vital technologies.*

**Session 6**

14:00 – 16:00

- **SP22-** ADS-B spoofing and mitigating measures – **Mr. Ho Wee Sin, Singapore**
- **SP23-** Space-based Surveillance: delivering a real-time, continuous and safety-certified ATC surveillance data flow whenever the areas – **Mr. Massimiliano FERLA, Thales**
- **SP24-** Space-based Surveillance: First 6 years of Global ATC operations and evolution into Satellite Time Difference of Arrival (TDA) to mitigate GNSS interferences – **Mr. Michele Carandente, Aireon**
- **SP25-** Research activities for investigating on-board electronic magnetic compatibility issues in current radio environments – **Mr. Shunichi Futatsumori, Japan**

**Moderator:** *Mr. Loftur Jonasson, ICAO HQ*

**End of Day 2**

## Wednesday 9<sup>th</sup> April 2025

### 5. Expert Panel: Key Takeaways, Recommendations, and the Path Forward

*The expert panel will reflect on the insights shared during the first two days, discussing the major themes and challenges. Panelists will provide a synthesis of the most important takeaways. This session offers a collaborative opportunity to chart a path forward, ensuring that the momentum generated throughout the symposium is translated into recommended action.*

#### Session 7

09:00-10:30

#### Expert Panel:

- **Mr. Loftur Jonasson**, ICAO HQ
- **Mr. John Moore**, IATA
- **Mr. Ho Wee Sin**, CAAS, Singapore
- **Mr. Ken Alexander**, FAA, USA
- **Dr. Sai Kalyanaraman**, Collins Aerospace

**Moderator:** *Mr. Gerhard Berz, Eurocontrol*

10:30 – 11:00

***Networking Break***



## 6. Radio Navigation Flight inspection

*The panel will discuss the critical role of Radio Navigation Flight Inspection in ensuring the safety of air navigation services. It will also highlight the ICAO USOAP audit requirements and address the latest developments, including the use of UAS-based flight inspection and relevant ICAO provisions.*

### Session 8

11:00 – 12:45

- **SP26-** ICAO USOAP Requirements– **Ms. Muna Alnadaf, ICAO HQ**
- **SP27-** ICAO Provisions on Flight Inspection – **Mr. Gerhard Berz, EUROCONTROL**
- **SP28-** Flight inspection using drones in Japan and Details of ILS drone propeller modulation – **Mr. Hiroshi FUTAKAMI, Japan**
- **SP29-** Flight Inspection in Indonesia: Ensuring Accuracy and Reliability – **Mr. Riza Faizal and Mr. Dedy Iskandar, Indonesia**

**Moderator:** *Ms. Muna Alnadaf, ICAO HQ*

12:45 - 13:15

Presentation of the Recommendations & Closing Ceremony

13:15 -  
onwards

***Lunch and Farewell***

**End of the Symposium**



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Please ask your questions  
using this QR code (Slido)

Thank you for your questions!

