

# WORC<sup>TM</sup> 2026

World Overflight Risk Conference

## Emerging Risks: GNSS Interferences

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EASA



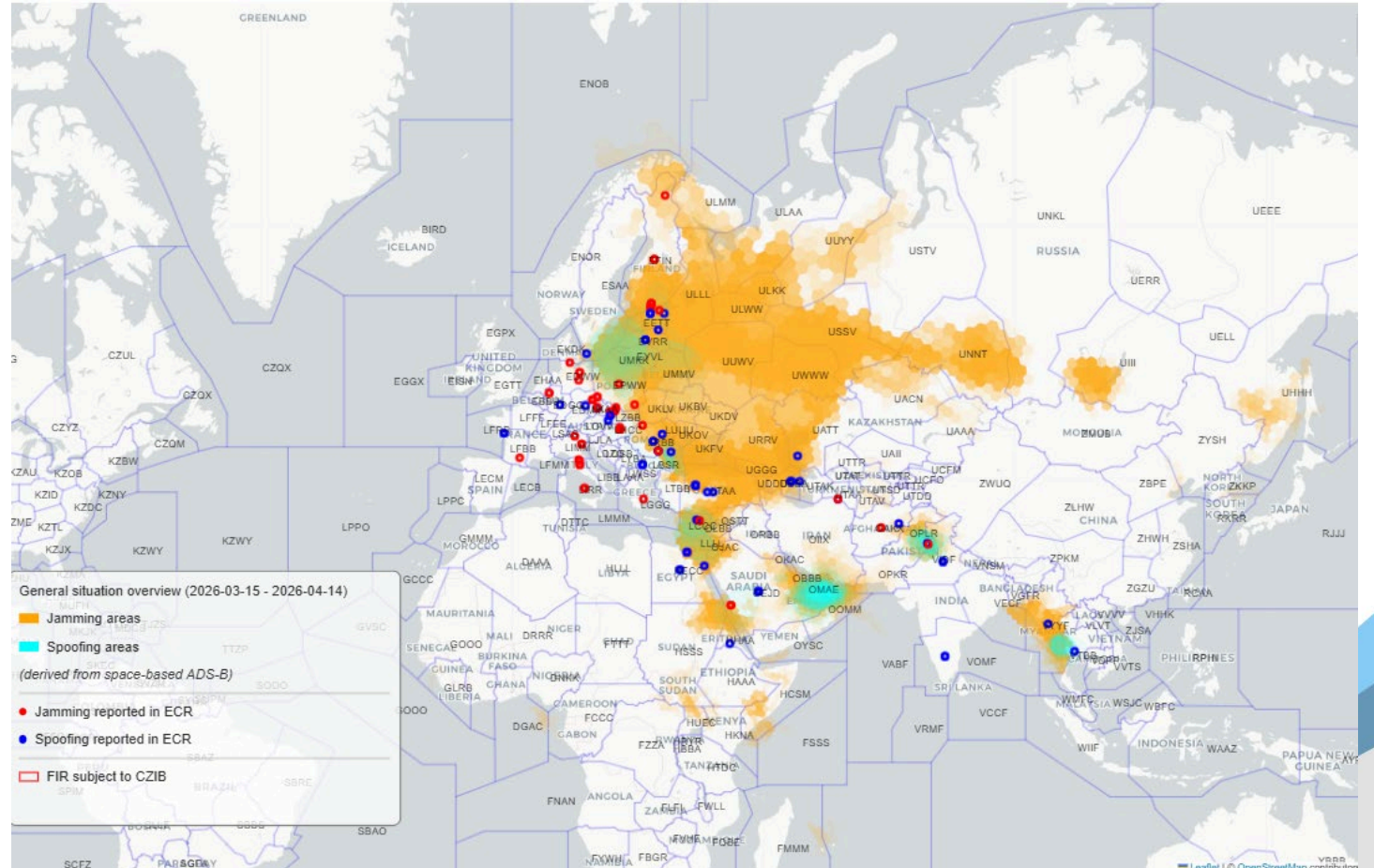
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# What is GNSS Radio Frequency Interference?

GNSS Radio Frequency Interferences (RFI) consist in:

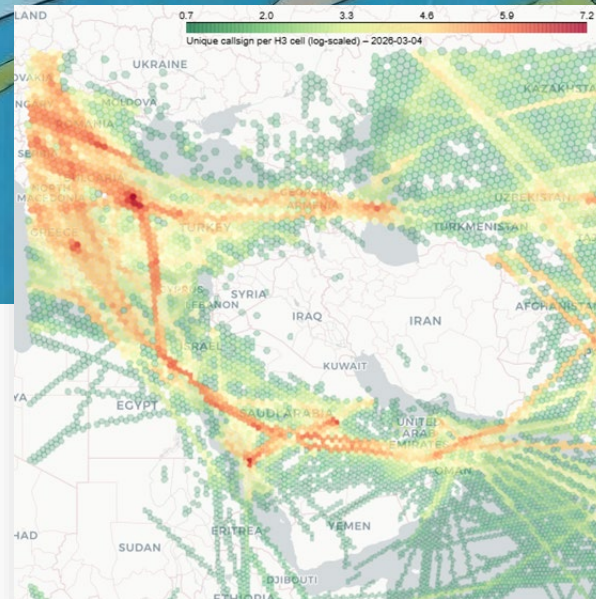
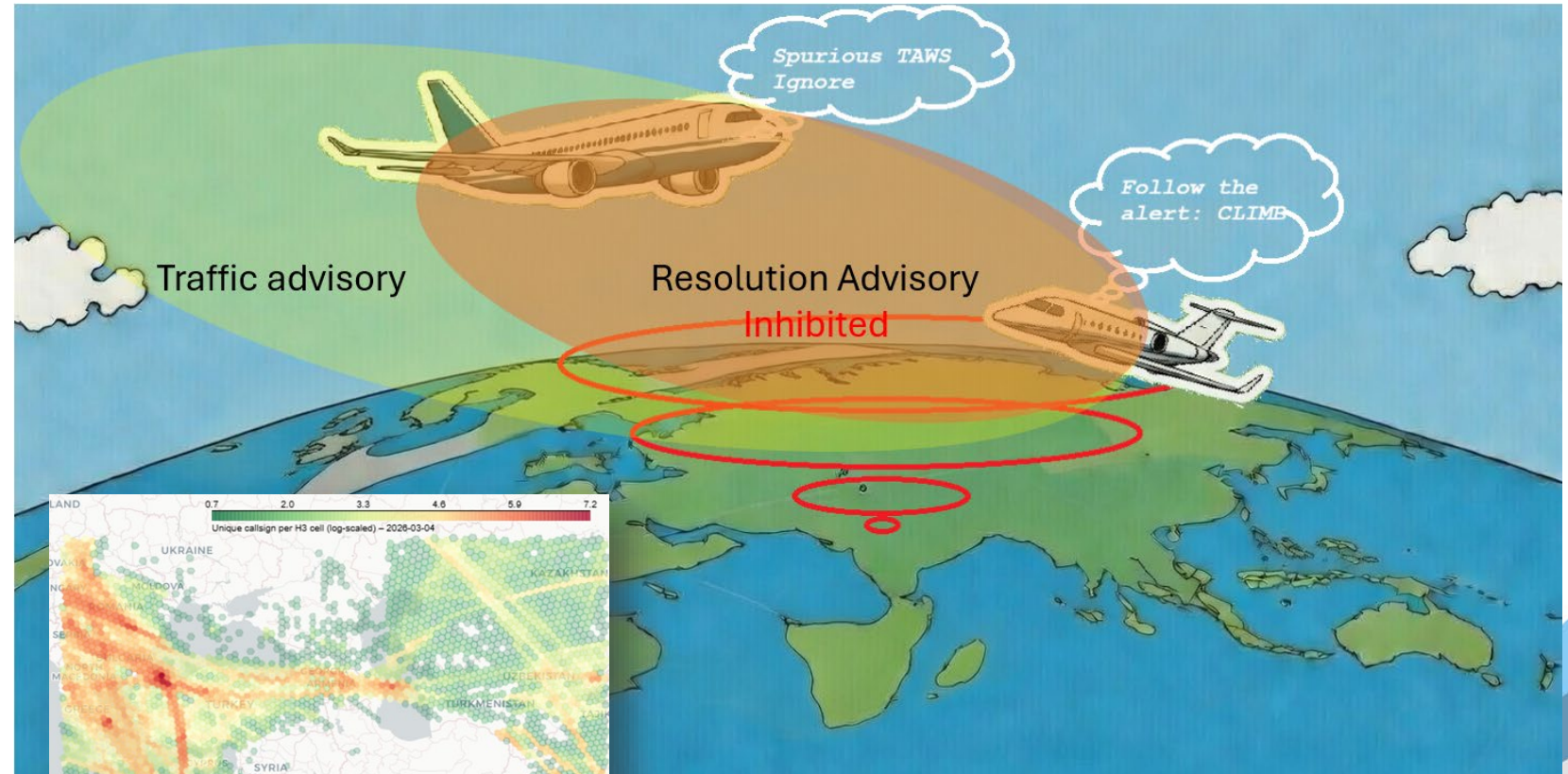
- either making GNSS signal unreachable for aircraft systems (**Jamming**),  
*SIGNAL UNAVAILABLE*
- or broadcasting counterfeit satellite signals (**Spoofing**).  
*SIGNAL UNRELIABLE*

Satellite navigation has become increasingly important, interferences may impact safety of operations.



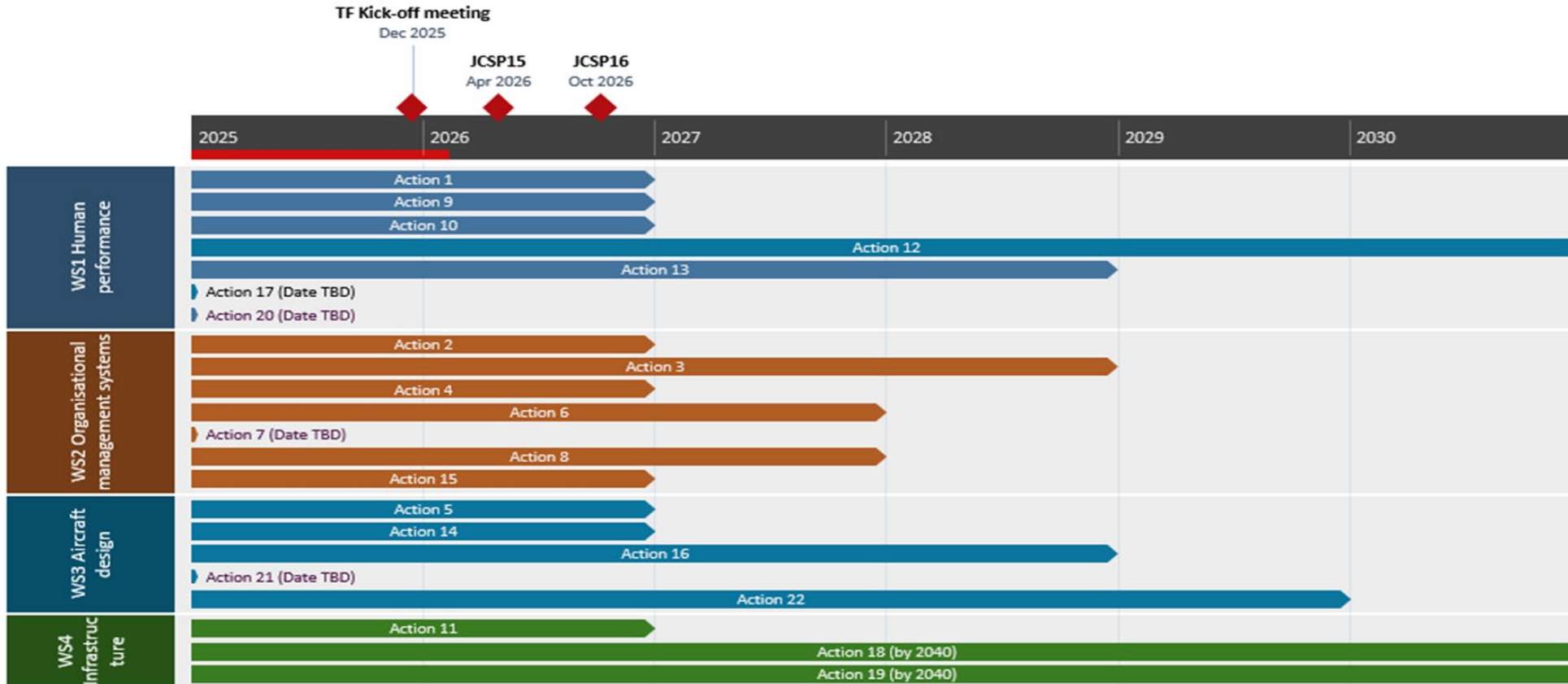
# Combined effect of GNSS RFI and TAWS

- Congested en-route situation
- Regional spoofing
- Several aircraft experiencing TAWS alerts due to spoofing
- Misaligned instructions from airlines
- TCAS – RA inhibited, reduced safety barrier





# Many Action plan actions will be delivered by end of 2026



# Mitigation 2: Portable spoofing detectors, EFB GNSS RFI layer

## Pros

- On board
- No installation/certification required
- Usage accepted as similar to Electronic Flight Bag (EFB) map

## Limitations

- Crew can use this information as pre-alerting
- Confirmation must be done using installed equipment
- No visual or audible alerts
- Battery autonomy



## LIDO mPilot (Lufthansa systems)

- flight mission data (OFL, SIGMET, NOTAMS, etc.)
- In-Flight Weather (IFW),
- near real-time GNSS interference maps
- with own-ship depiction

## Mitigation 3: SIB 2022-02 R3

- Reference publications for available containment measures
- Weekly updates of most affected FIRs on EASA website
- Revision 4 consultation to be launched this week
- Fuel consideration added
- New Appendix 1
  - Phrases to communicate with ATC in clear and unambiguous manner



### Safety Information Bulletin Operations – ATM/ANS – Airworthiness

SIB No.: 2022-02R3

Issued: 05 July 2024

**Subject:** Global Navigation Satellite System Outage and Alterations Leading to Communication / Navigation / Surveillance Degradation

**Revision:**  
This SIB revises EASA SIB 2022-02R2 dated 06 November 2023.

powered by DataSafety

**impacted FIRs in the last 7 days on 09/02/2026**

src: ads-b data and reports

rank	region	ICAO	name	spoofing	reported
1	EUR	LTAA	ANKARA	*	
2	ASIA	VYYY	YANGON	*	
3	EUR	EPWW	WARSZAWA	*	
4	EUR	LRGB	BUCURESTI	*	
5	ASIA	VIDF	DELHI	*	
6	ASIA	OFLR	LAHORE	*	
7	EUR	UOGG	TBILISI	*	
8	EUR	LBSR	SOFIA	*	
9	MD	OIXX	TEHRAN	*	
10	EUR	ESAA	SWEDEN	*	
11	EUR	LTBB	ISTANBUL	*	
12	EUR	UULL	SANKT-PETERBURG	*	
13	ASIA	VTBB	BANGKOK	*	
14	EUR	UWVW	MOSCOW	*	
15	EUR	USSV	YEKATERINBURG	*	
16	EUR	EETT	TALLINN	*	
17	MD	ORBB	BAGHDAD	*	
18	EUR	UBBA	BAKU	*	
19	EUR	UWWW	SAMARA	*	

**impacted FIRs in the last 30 days on 09/02/2026**

src: ads-b data and reports

rank	region	ICAO	name	spoofing	reported
1	EUR	LTAA	ANKARA	*	
2	EUR	EPWW	WARSZAWA	*	
3	ASIA	VYYY	YANGON	*	
4	EUR	LRGB	BUCURESTI	*	
5	EUR	LBSR	SOFIA	*	
6	ASIA	VIDF	DELHI	*	
7	ASIA	OFLR	LAHORE	*	
8	EUR	UOGG	TBILISI	*	
9	EUR	ESAA	SWEDEN	*	
10	EUR	UULL	SANKT-PETERBURG	*	
11	EUR	LTBB	ISTANBUL	*	
12	MD	OIXX	TEHRAN	*	
13	ASIA	VTBB	BANGKOK	*	
14	EUR	UWVW	MOSCOW	*	
15	MD	ORBB	BAGHDAD	*	
16	EUR	EETT	TALLINN	*	
17	EUR	UBBA	BAKU	*	
18	EUR	USSV	YEKATERINBURG	*	
19	EUR	UNNT	NOVOSIBRSK	*	

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20 - 22 April 2026 | St Julian's, Malta

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