## **Aviation Global Navigation Satellite System (GNSS)**

Radio Frequency Interference (RFI)



**Ann Gyldén, Swedish Transport Agency** 

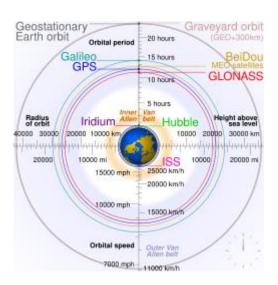


## **GNSS?**





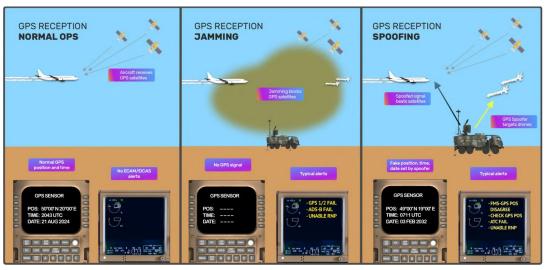






# **Radio Frequency Interferance**







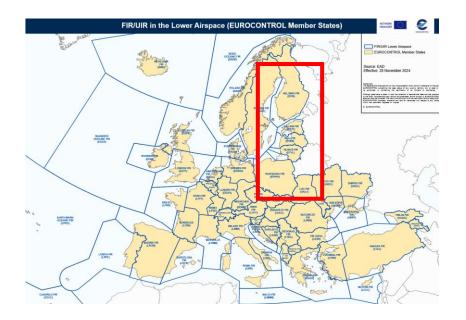
# Flights affected by RFI

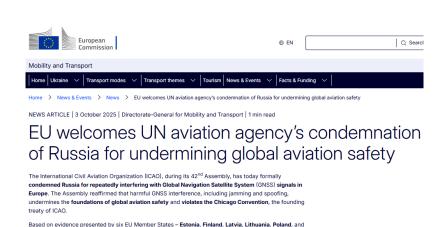
Average ratio	Estonia	Finland	Poland	Sweden	Latvia	Lithuania	
date	EETT	EFIN	EPWW	ESAA	EVRR	EYVL	Grand Total
2024-05	22.54%	10.20%	2.77%	1.27%	5.73%	2.76%	7.55%
2024-06	22.97%	9.21%	3.55%	1.59%	5.27%	3.08%	7.61%
2024-07	25.07%	19.45%	4,69%	1.63%	5.21%	4,08%	10.02%
2024-08	29.58%	24.59%	2.97%	1.11%	6.29%	5.31%	11.64%
2024-09	24.94%	24.06%	3.85%	1.59%	5.78%	5.90%	11.02%
2024-10	20.08%	21.50%	6.80%	2.41%	5.13%	6.22%	10.35%
2024-11	27.78%	24.78%	11.59%	3,30%	10.70%	18.52%	16.11%
2024-12	30.68%	21.90%	14.73%	7.41%	18.14%	29.88%	20.46%
2025-01	38.71%	28.59%	14.48%	7.43%	20.60%	28.53%	23.06%
2025-02	34.14%	22.69%	22.96%	7.63%	17.44%	40.08%	24.16%
2025-03	32.68%	22.24%	20.59%	7.84%	17.91%	30.02%	21.88%
2025-04	31.89%	23.03%	25.52%	12.27%	29.58%	42.51%	27.47%
2025-05	35.35%	26.76%	28.42%	14.87%	34.34%	52.41%	32.02%
2025-06	40.38%	32.65%	39.86%	26.90%	56.68%	72.05%	44.75%
2025-07	43.28%	34.37%	28.01%	17.95%	44.30%	57.78%	37.61%
2025-08	41.47%	30.29%	28.66%	19.31%	43.48%	58.34%	36.93%





## **EU-project to ICAO**





Commissioner for Sustainable Transport and Tourism, Apostolos Tzitzikostas, said: "The interference with GNSS services is completely unacceptable, and I welcome the unequivocal condemnation from ICAO Member States of these serious violations. Such disruptive activities pose a direct threat to aviation safety and security. It is imperative that those responsible are held fully accountable for their actions."

Sweden - the Assembly recognised that the source of harmful GNSS interference affecting air operations

Despite ICAO's calls urging Russia to cease these activities, no corrective actions or engagement have occurred. The Assembly urgently called for Russia to halt this interference and fulfill its international obligations. Additionally, it requested that all ICAO States be promptly informed of Russia's condemnation

in the Baltic, Eastern, and Northern European regions originates from Russia.

and its violation of the Chicago Convention.



### **European Union Aviation Safety Agency**

#### Rule-making task

Reliance on satellite navigation

GPS signal manipulation leading to navigation or surveillance degradation

PLANNING MILESTONES									
SubT	Initiation	Consultation	Opinion	Commission IR	Decision				
	2025-Q4	2026-Q3	2027	2028	2028				





