



# GNSS Radio Frequency Interference in Poland

# EPWW FIR



**1 Area Control Centre**



**4 Radar Colocated  
Approach Control Units**



**15 Control Towers**



**Over 334,000 km<sup>2</sup>  
of controlled airspace**



**630+ Air Traffic Controllers**

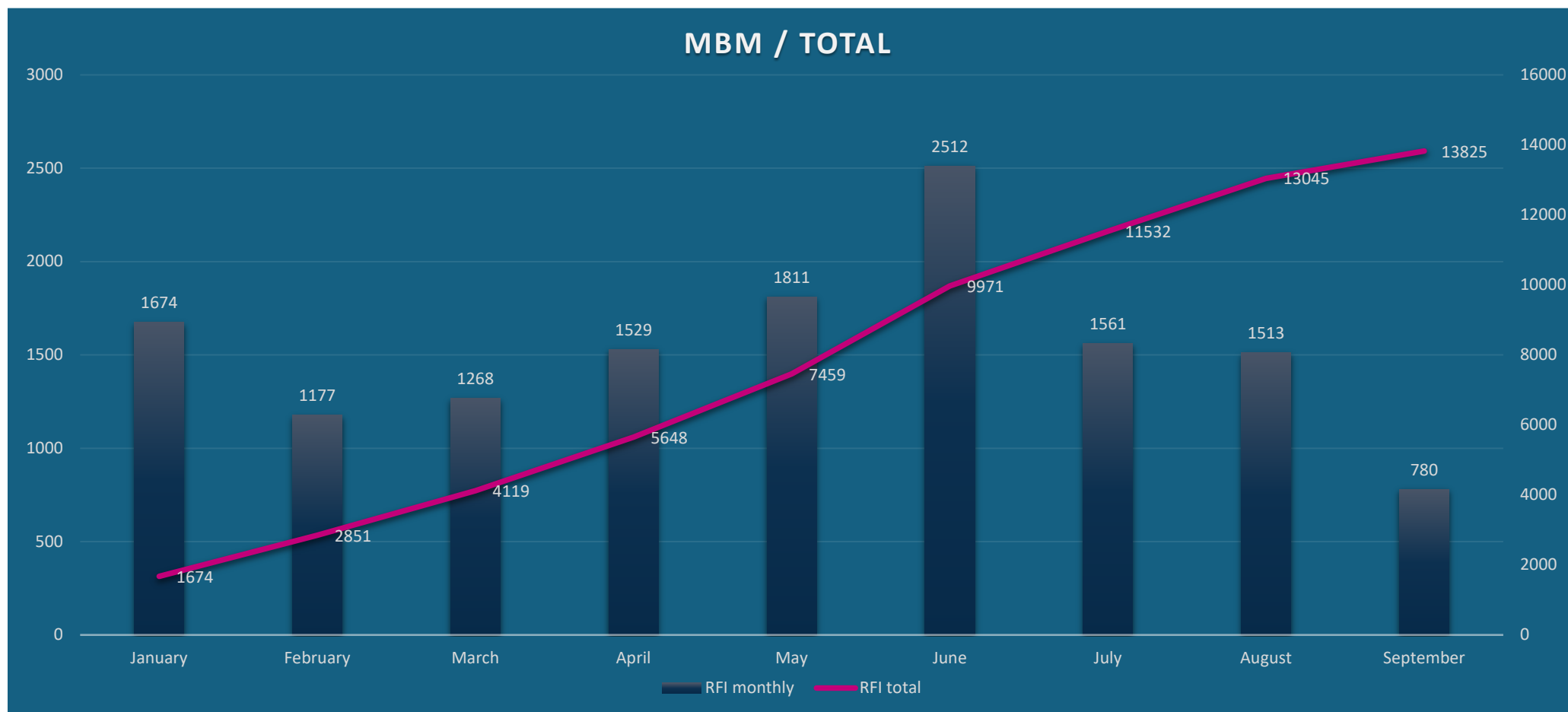


**758k IFR flight movements in 2024**

## GNSS RFI in Poland

- A significant increase of jamming and spoofing in EPWW FIR since Russian invasion in Ukraine.
- North and Central part of Poland is mostly affected by GNSS interferences.
- The main source of interferences are: Russian Federation and Belarus.
- Internal interferences are also observed (Civil and Military).

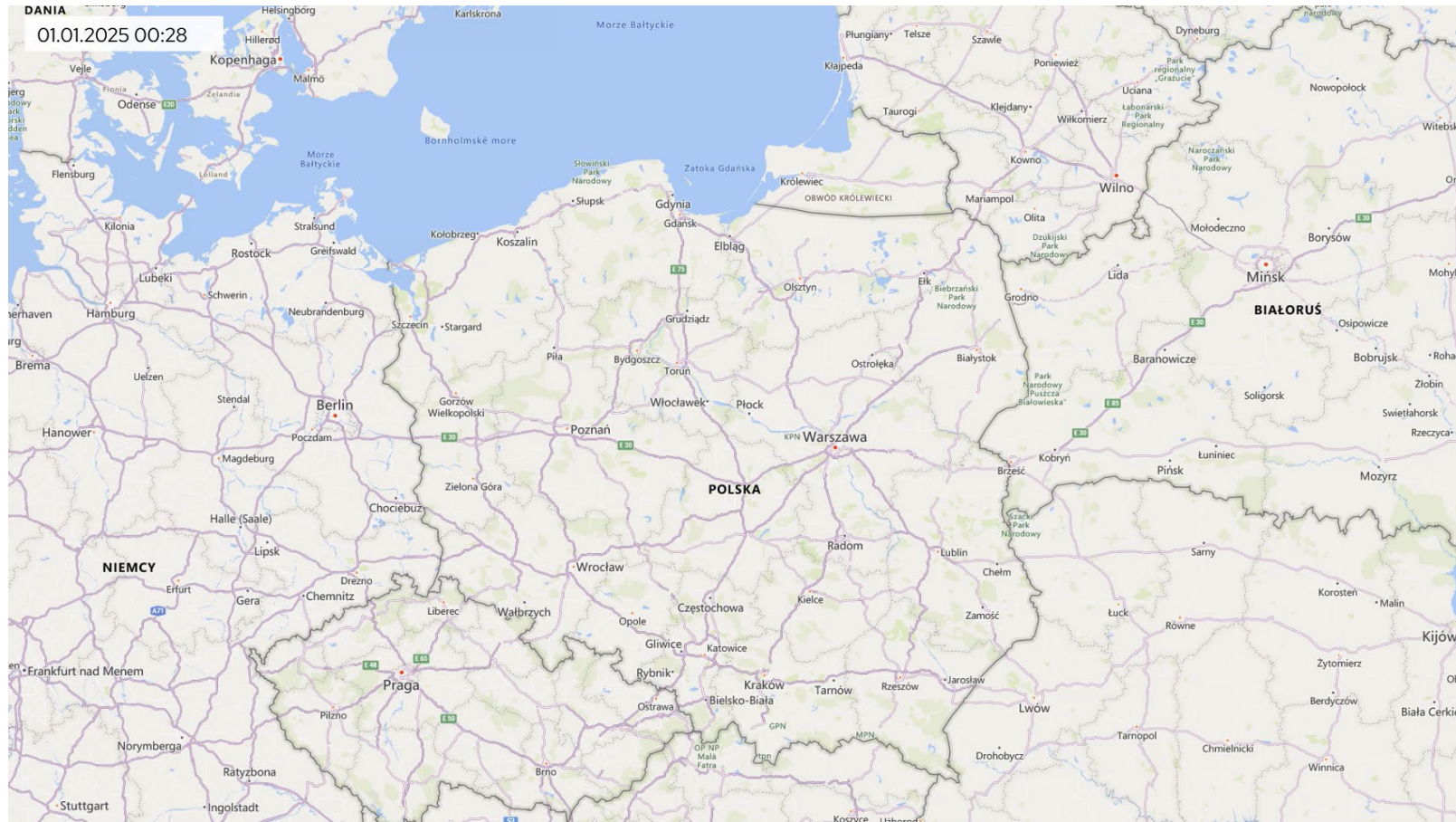
# GNSS RFI – 2025



## GNSS RFI Details – 2025

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Jamming	1179	827	940	1195	1361	1940	1261	1215	608
Spoofing	282	167	166	170	219	270	179	138	103
CPDLC	2	2	3	5	1	2	2	13	2
Navigation	186	168	145	148	206	290	113	141	65
ADS-B	23	13	12	11	23	10	6	5	2
TCAS	2	-	2	-	-	-	-	1	-
GPWS	25	15	18	23	16	32	14	8	13
<b>Total</b>	<b>1674</b>	<b>1177</b>	<b>1268</b>	<b>1529</b>	<b>1811</b>	<b>2512</b>	<b>1561</b>	<b>1513</b>	<b>780</b>

# GNSS RFI – 2025



## Actions by PANSA

- National GNSS contingency and operations plans and ATM/ATFCM procedures for safe management of GNSS interferences are implemented;
- Rationalized infrastructure (ILS/VOR/DME) allowing optimum RNAV/RNP coverage and conventional backup is provided;
- Flight crews are aware of interferences (regular meetings in PANSA);
- Coordination with national security and military Agencies to obtain information on GNSS interferences;
- Reduce dependency of surveillance and communication systems on GNSS: maintain their availability;
- Update PBN IR to ensure safe operation in a PBN environment to address the negative effects resulting from the restrictions to fly conventional navigation, particularly, ILS CAT I procedures and to further support the implementation of contingency measures;

## Actions by PANSA

- Multiple NOTAM publications about GNSS RFI since FEB 2022;
- Additional information on potential GNSS RFI is broadcasted by ATIS;
- PBN Team & safety department constantly monitoring RFI GNSS;
- International cooperation – EASA/EUROCONTROL/IATA/ICAO level;
- National cooperation - CAA/stakeholders;
- GNSS related Safety bulletins for ATS are published and updated;
- PA procedures based on ILS/DME are available;
- NPA procedures based on DVOR/DME are also available;

The logo for Pansa, featuring the word "PANSA" in a white, rounded, sans-serif font. The letter 'P' is stylized with a small hook on its left side. The background is a solid blue color with several light blue, abstract, wavy lines that sweep across the frame from the top left towards the bottom right.

# PANSA

Thank you.