

# GPS Jamming & Spoofing Monitoring for ANSPs

*Making invisible threats visible.*

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CERTIFIED SECURITY & QUALITY

**ISO 27001 · ISO 9001**

# GPS Monitoring Solutions on the Market

Three categories with different characteristics

## GNSS Performance Monitoring

*Signal-quality monitoring*

- Ground sensors monitor quality and integrity of real GNSS signals
- Recommended by ICAO Annex 10 Vol. 1
- Historically not designed for jamming or spoofing detection

## Ground-based RFI Detection

*Local GNSS spectrum sensing*

- Ground sensors monitor GNSS bands for interference
- Typically deployed at airports with GNSS approach
- Detects interference coming from nearby highways or parking lots

## ADS-B-based Online Maps

*Crowdsourced airspace view*

- Crowdsourced data from hobbyist networks
- Visualization of global RFI situation
- Limited precision: Only shows edge of events



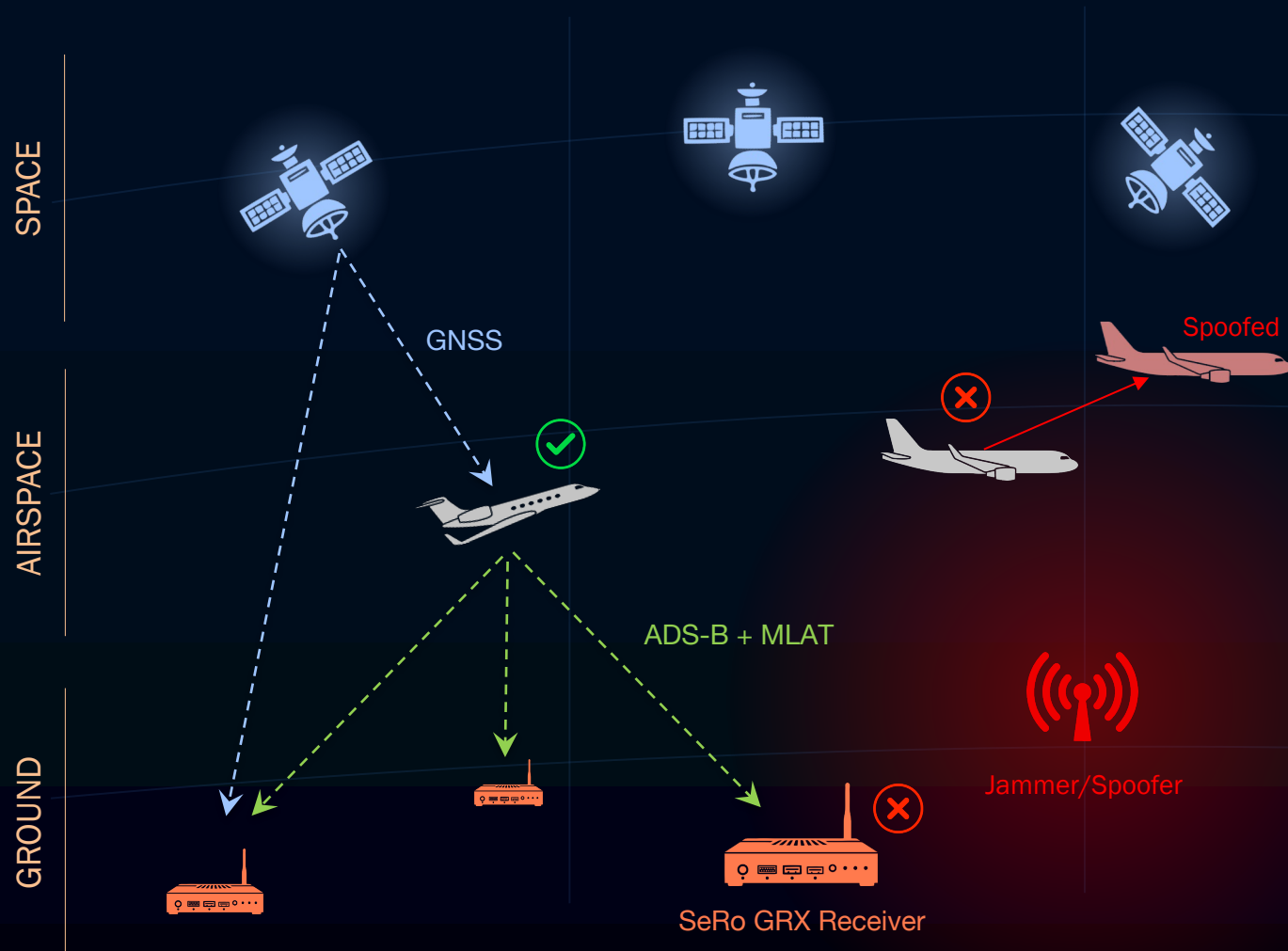
## How do these solutions compare?

Strengths and trade-offs across coverage, precision, and operational fit

	GNSS Performance Monitoring	Ground-based RFI Detection	ADS-B-based Online Maps
<b>Covered area</b>	● <b>Spot monitoring</b> <i>on the ground</i>	● <b>Spot monitoring</b> <i>on the ground</i>	● <b>Airspace monitoring</b> <i>using aircraft as sensors</i>
<b>Detection precision</b>	● <b>High</b> <i>direct RF spectrum access</i>	● <b>High</b> <i>direct RF spectrum access</i>	● <b>Low</b> <i>only outer edge of event</i>
<b>Spoofing detection</b>	● <b>No</b>	● <b>Some</b>	● <b>Some</b>
<b>Real-time detection</b>	● <b>Yes</b> <i>few seconds/minutes</i>	● <b>Yes</b> <i>few seconds/minutes</i>	● <b>Delayed</b> <i>10 min – 24 h</i>
<b>Alert timing</b>	● <b>Before A/C impact</b>	● <b>Before A/C impact</b>	● <b>After A/C impact</b>
<b>Service level / guarantees</b>	● <b>Yes</b> <i>controlled deployment</i>	● <b>Yes</b> <i>controlled deployment</i>	● <b>No</b> <i>no control over coverage</i>

# SeRo Systems GNSS RFI Monitoring — System Overview

Airspace + ground monitoring in one integrated solution



## SeRo Processing & Alerting

- Jamming and spoofing detection
- Real-time = seconds to minutes
- ADS-B + MLAT fusion for full awareness
- Combined airspace and ground sensing
- Predictive alerting and incident analysis
- GNSS performance monitoring included





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# GPS Spoofing Carryover Effects

*at Airspace World 2026*

WHEN & WHERE

**26 – 28 May 2026 · Lisbon**

FIND US AT

**Stand H1-B86**

More info: <https://sero-systems.de>



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about our talk &  
Airspace World presence