



# GNSS Anti-Jamming & Spoofing Solution

Avoid signal interferences and fly with confidence



Although aviation is widely considered the safest mode of transportation on earth, a new threat is surging that compromises the reliability of GNSS (Global Navigation Satellite System) signals during flight. We're talking about GNSS jamming and spoofing.

Expert pilots from all around the world are increasingly reporting encounters with jamming and spoofing attempts, especially when flying over certain regions such as the Middle East and Eastern Europe<sup>1</sup>. These GNSS interferences can not only render the GPS useless for a significant period of time but also affect other GNSS-based avionics.

In an industry where safety is paramount, Fokker Services Group's GNSS-Anti Jamming & Spoofing Solution ticks all the boxes.

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<sup>1</sup> IATA. GNSS Radio Frequency Interference Safety Risk Assessment. October 2023.

## We've been jammed or spoofed: what now?

**Jamming:** a locally generated radio frequency interference used to "drown out" satellite signals. This 'noise' will cause the GPS to stop working altogether. Pilots who find themselves in a jamming situation will abort their maneuver and divert or go around until their GPS signal is restored.

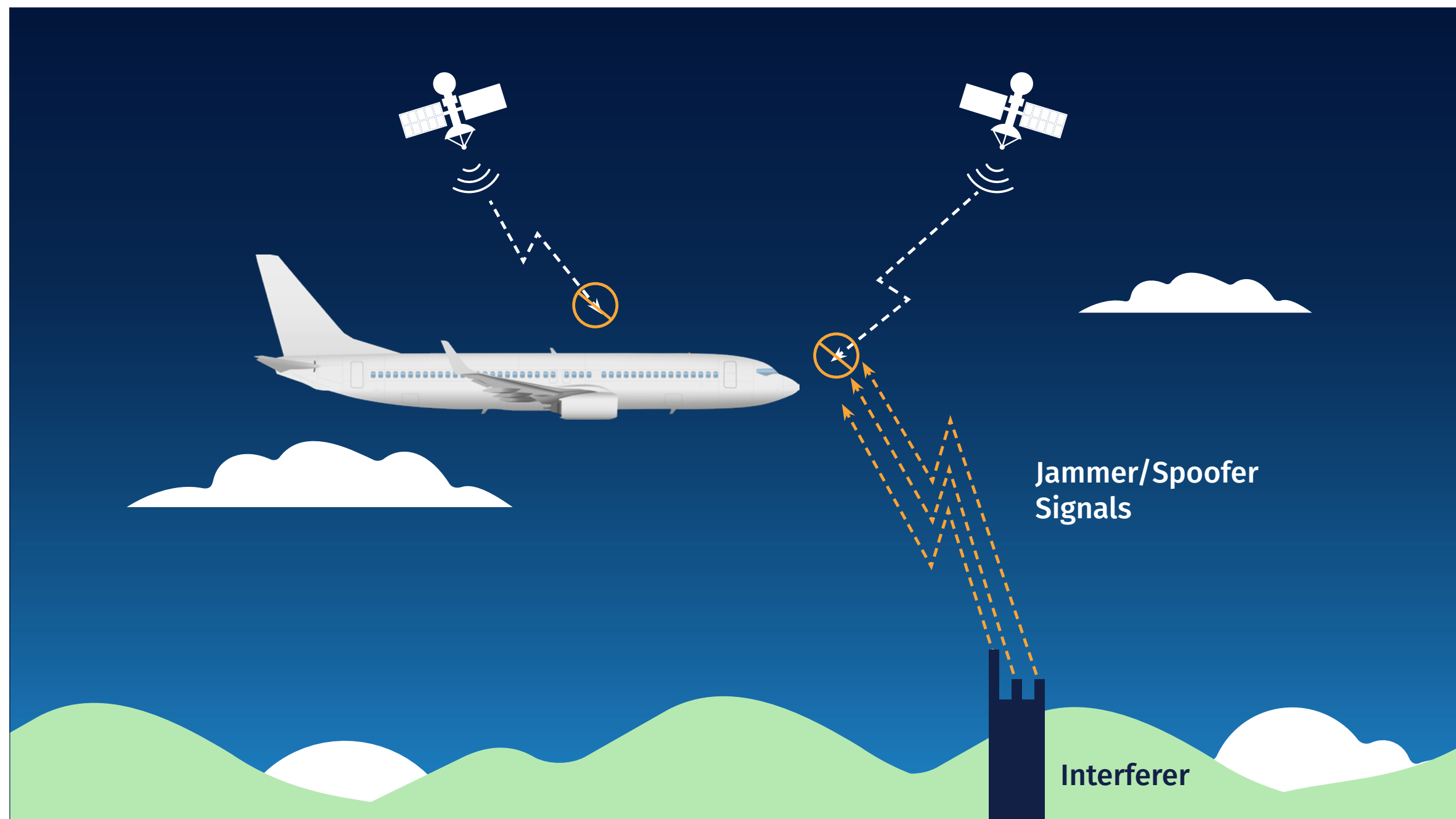
**Spoofing:** a false GPS signal is broadcast, fooling GPS systems onboard into believing the aircraft is somewhere else or at a different point in time. This might lead to several safety threats, including:

- » Flying over unauthorized zones.
- » Close proximity to high terrain.
- » Increased risk of mid-air collisions.

The risk of these interferences can materialize at any stage of the flight. While jamming can be the result of unintended interference (for example, when flying close to military facilities), spoofing is a deliberate activity, and as such, it pursues a criminal objective.

## 3 key risks of jamming & spoofing:

- » Safety risk, the number one priority for all airlines and crews.
- » Increased cockpit as well as ground crew workload.
- » Operational deterioration, including grounded aircraft due to failed equipment, increased flight time & fuel burnt.



## Pioneering GNSS-Anti Jamming & Spoofing solution for civil aircraft

At Fokker Services Group we knew we had to take action to protect passengers and crews from this looming threat, so we engineered the world's first-ever GNSS-Anti Jamming & Spoofing solution for civil aircraft.

Our innovative solution uniquely detects and counters GNSS signal manipulation attempts, completely shielding your aircraft against jamming and maximizing resilience to GNSS spoofing attempts.

Highlights:

- » Simple installation
- » No retraining needs
- » Complete MODS kit & engineering bulletins.

Benefits of our solution:

- » Enhances operations
- » Brings a newfound peace of mind for passengers and crews alike
- » Minimizes the risks of GNSS interference

## A threat that goes beyond just positioning data

The importance of GNSS signals goes beyond triangulating the aircraft's position, as there are numerous GNSS based avionics that require GNSS position data to function correctly, with some of these being:

- » FMS (Flight Management System)
- » TAWS (Terrain Avoidance Warning System)
- » Enhanced Ground Proximity Warning Systems (EGPWS)
- » Traffic Collision Avoidance System (TCAS)



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### About Fokker Services Group

Fokker Services Group is an independent aerospace service company with a global reach. Providing comprehensive solutions from its five facilities in Europe, Asia and the Americas, Fokker Services Group is a key partner for regional, narrow-body and wide-body platforms in the Commercial, VIP, Cargo and Defense markets. The organization offers a unique set of capabilities, products and services: 'Modifications & Engineering Services' for the latest technical solutions; 'Component Services' such as nose-to-tail programs, exchange services, and component repairs; 'Material Services' such as parts manufacturing, spares deliveries, and tear-downs; 'Airframe Services' for aircraft MRO including lease transitions and painting; and 'Aircraft Completion & Conversion Services' for Executive, VVIP and Special Mission aircraft upgrades.



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