

# WHAT IS ADS-B?

Automatic Dependent Surveillance-Broadcast (ADS-B) is an air traffic surveillance technology that relies on aircraft broadcasting their identity, a precise GPS position and other information derived from on-board systems.

ADS-B is automatic because no work is required from the pilot or Air Traffic Controller (ATC). It is also dependent because it relies on on-board avionics to provide real-time position information to other parties.

The data is broadcast every half a second from the aircraft and can be received without a contract.

- ▶ Automatic: transmits information with no pilot or operator input required, twice per second
- ▶ Dependent: position and velocity vector are derived from the Global Positioning System (GPS)
- ▶ Surveillance: a method of determining position of the aircraft, in real time
- ▶ Broadcast: transmitted information available to anyone with the appropriate receiving equipment



## EACH ADS-B REPORT INCLUDES

- ▶ Flight Identification (flight number, registration, tail number)
- ▶ ICAO 24-bit Aircraft Address (globally unique aircraft code)
- ▶ Position (latitude/longitude)
- ▶ Position Integrity/Accuracy (GPS horizontal protection limit)
- ▶ Barometric and Geometric Altitudes
- ▶ Vertical Rate (rate of climb/descent)
- ▶ Track Angle and Ground Speed (velocity)
- ▶ Emergency Indication (when emergency code selected)

## HOW IS AIREON UTILIZING THIS EXISTING TECHNOLOGY FOR A NEXT GENERATION SERVICE?

Aireon's space-based global air traffic surveillance system is just ADS-B on a satellite. Sounds simple, and it is.

Instead of utilizing traditional radio receiver towers on the ground, which have coverage limitations like oceans, remote areas and inhospitable terrains, Aireon has redesigned them into flexible and highly effective space-grade receivers on Iridium's second generation satellite constellation, Iridium NEXT. This allows for global, real-time air traffic surveillance using the same ADS-B signal that aircraft already transmit, but without the limitations ground-based receivers have.

Aireon's space-based ADS-B system covers the entire planet, pole-to-pole, providing the granular level of aircraft position information previously only found over densely populated terrestrial areas, and extends that visibility throughout the world.