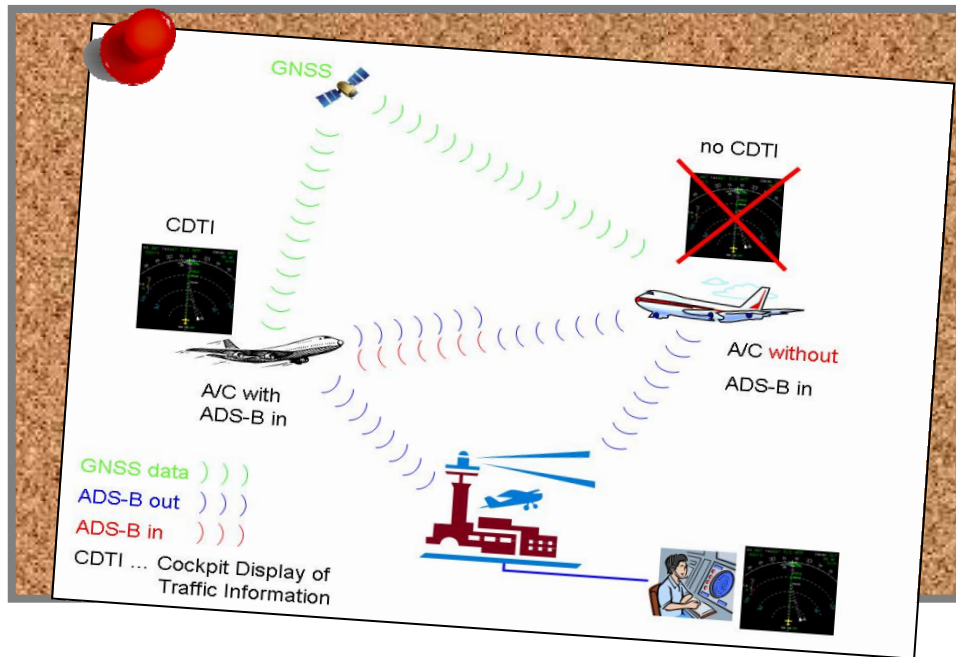


ADS-B Automatic Dependent Surveillance – Broadcast



Automatic dependent surveillance-broadcast (ADS-B) is a cooperative surveillance technique for air traffic control and related applications. An ADS-B-equipped aircraft determines its own position using a global navigation satellite system and periodically broadcasts this position and other relevant information to potential ground stations and other aircraft with ADS-B-in equipment.

ADS-B can be used over several different data link technologies, including Mode-S Extended Squitter (1090 ES), VHF data link (VDL Mode 4), and Universal Access Transceivers (UAT).



Advantages

With **ADS-B**, both pilots and controllers will see radar-like displays with highly accurate traffic data from satellites – displays that update in real time and don't degrade with distance or terrain. The system will also give pilots access to weather services, terrain maps and flight information services. The improved situational awareness will mean that pilots will be able to fly at safe distances from one another with less assistance from air traffic controllers.

- Provides air-to-air surveillance capability.
- Provides surveillance to remote or inhospitable areas that do not currently have coverage with radar.
- Provides real-time traffic and aeronautical information in the cockpit.
- Allows for reduced separation and greater predictability in departure and arrival times.
- Supports common separation standards, both horizontal and vertical, for all classes of airspace.
- Improves ability of airlines to manage traffic and aircraft fleets.
- Improves ability of air traffic controllers to plan arrivals and departures far in advance.



ADS-B Automatic Dependent Surveillance – Broadcast

Implementation date

CASCADE Program by Eurocontrol:

- ADS-B-out was expected to reach initial operational capability status in 2008
- ADS-B-in for air traffic situational awareness in 2011.

Technical Validation/Certification

1. Evaluation of existing equipment (TSO- C166a or TSO-C154b)
 - Aircraft Avionics
 - Cockpit Display Systems
 - Communication Systems
2. If not sufficient, upgrading of the system to ADS-B capability
 - upgrade to an ADS-B out system (transponder)
e.g. Garmin GTX 330 or Rockwell Collins TDR-94/94D
 - upgrade to an ADS-B in and out system (transceiver and a Cockpit display)
e.g. Garmin GDL 90 with an multifunction display Garmin GMX 200 or
Rockwell Collins TSS-4100 (near future)
3. EASA Certification to gain ADS-B airworthiness compliance.

**Interested in
certification and installation?**

**e-mail us at
customer.support@gateV.at**

**or call our
Engineering Team
at
+43 1 7007 32025
mo – fr / 0800H – 1700H**