Automatic Dependent Surveillance – Broadcast (ADS-B)

OUR COMPREHENSIVE RANGE OF INTEGRATED PRODUCTS IS A PREFERRED SOLUTION FOR ENHANCED WIDE AREA SURVEILLANCE OF AIRCRAFT.

Why ADS-B?

Airlines and air navigation service providers benefit from improved low cost surveillance leading to safety enhancement, reduced workload for both pilots and controllers and more efficient operations.

ENABLERS FOR ADS-B

ADS-B used in air-to-ground applications provides support in all phases of flight and ground operations:

- en-route e.g. for radar-like separation in non-radar or low coverage airspace
- in TerMinal Areas (TMA) e.g. for precision approach monitoring
- at airports, e.g. within Advanced Surface Movement Guidance and Control Systems (A-SMGCS) including multilateration for surveillance and identification, and vehicle fleet management.

Ground Stations
A Ground Station receiver processes and relays avionics broadcasts of ADS-B data to suitable systems.

Air Traffic Control
Display of processed ADS-B data integrated with radar, flight plan and ADS-C data to provide a single view for controllers.

Advanced Surface Movement Guidance and Control Systems (A-SMGCS)
Display of all airport surface movements through automated evaluation of multiple inputs including surface movement radar. ADS-B components include:

- Multilateration
Identification and location of aircraft and vehicles, including the capability to monitor aircraft in the air.

- Vehicle Management
Advanced vehicle tracking for all vehicles in an airport environment.
We supply all the elements of a seamless integrated solution for ADS-B air-ground applications; ground stations, air traffic control systems, A-SMGCS and mobile units such as transponders and vehicle transmitters.

**ADS-B Ground Station**

**AS 680**

Provides the ground segment of an ADS-B air traffic control surveillance system for en-route, terminal area and surface movement control. Using 1090 Mode S Extended Squitter datalink, the system outputs decoded data as Asterix category 21 to an attached network.

**Air Traffic Control**

**EUROCAT**

Displays ADS-B data fully integrated on the same screen as flight plan data, radar data & ADS-C data.

**A-SMGCS**

**STREAMS**

Fuses data from multiple sensors, including AS 680 ADS-B Ground Station and Mode S Airport Ground Sensor (MAGS) signals. Includes automatic provision of alerts and warnings, as well as traffic routing capabilities.

**Multilateration**

**MAGS**

A passive co-operative sensor system, with full ADS-B capability, for surveillance and identification of suitably equipped aircraft and vehicles.

**Vehicle Management**

**SMART MOSQUITO**

A multi-link transmitter for Vehicle Management providing position and identification information to the airport’s A-SMGCS system through multiple signal outputs including Mode S.

**INSTALLED, FIELD PROVEN PRODUCTS**

Thales ADS-B capable products are in use or under order by a range of customers throughout the world:

**AS 680 ADS-B Ground Station / MAGS**

Germany, Italy, Spain, Australia

**EUROCAT ATM SYSTEM**

Australia, China, Fiji, South Korea, South Africa...

**Streams**

Germany, France, Italy, Poland, Ukraine, Mexico, South Korea

**Mosquito**

Italy, France, Australia

Increased safety in non-radar airspace including automated alerts and warnings

Improved controller situational awareness and increased traffic movement capacity

High precision identification with no increase in radio load for greater safety and efficiency

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