ADS-B

Analysis

Tern Systems

Tern ADS-B Analysis and Recording Tool

System Overview

ADS-B is fast becoming a mandated method of surveillance in radar and non-radar covered air spaces. Operators in the U.S. and Europe are required to support ADS-B Out before the year 2020 and most air spaces are being equipped with ADS-B technology. Due to the low cost of deployment ADS-B is being installed in many areas where the use of radar is impractical.

The Tern ADS-B Analysis and Recording Tool is capable of recording synchronously from multiple ADS-B ground stations regardless of manufacturer type. The system stores ADS-B data in a centrally located database, where it can be accessed from any computer or device on the network via web interface. The web-interface is designed to give access to variety of ready-made reports and analysis. The central database is easily accessible for external systems through SQL interface, for example to support internal billing functions.

The ADS-B Recording and Analysis Tool is able to deliver instant ADS-B analysis, e.g. visual confirmation of ADS-B tracks, detection of faulty ADS-B transponders, and reports on the quality of ADS-B data. Furthermore, the tool can be used to analyze ground stations coverage based on real data, locate surveillance gaps, and detect duplicate signals to assist with planning deployment and/or relocation of ground stations.

Features and benefits:

- Supports recording of ASTERIX category 21
- Equipage Rate Analysis based on configurable quality indicators
- Comparison between ADS-B ground stations
- Duplicated coverage
- Gap analysis
- Flights constructed from ADS-B messages
- Coverage analysis according to EUROCONTROL Specification for ATM Surveillance System Performance (ESASSP)
- Google Earth® export (down sampling supported)
- Based on an open SQL standard and can output information to any supported backend system in different formats, i.e. SQL, CSV, Microsoft Excel, clear text, etc.
- Open architecture for internal development
- Storage time is configurable