

SQUID - VEHICLE TRACKING SYSTEM

At all airports worldwide, ground vehicle incursion into critical safety areas is rising. SQUID by ERA minimizes the risk by using a **fully standards compliant, vehicle-mounted ADS-B transmitter** (squitter) that continually broadcasts a vehicle's location. The transmitter can be permanently or magnetically mounted to all airside vehicles, including tugs, fire and rescue vehicles and de-icing equipment. Each vehicle is clearly and uniquely identified, providing an essential addition to any Advanced Surface Movement Guidance and Control System (A-SMGCS).

SQUID units complement and support NEO by ERA multilateration systems used to identify and track any non-transponder equipped targets. The design of the equipment ensures easy integration into and interoperability with any other multilateration or ADS-B system based on ICAO Annex 10 defined Mode S Extended Squitter datalink.

Technical Design & Parameters

SQUID units consist of an electronics unit and an antenna housed in a composite cover. The power and programming cable enters the housing through a fully sealed/weather resistant connector.



SQUIDS are powered by the vehicles own power system consuming no more than 3 watts and transmitting in 18 watt pulses. They can be hard wired or plugged into the vehicles cigarette lighter port. The SQUID is based on 1090 MHz Mode S spontaneous squitter.

Magnetic mount of ERA's SQUID at Frankfurt airport, Germany.

ERA's SQUID permanently mounted on the tug at Amsterdam Schiphol Airport (below).

The highest number of SQUIDS in use: Amsterdam Schiphol, Copanhagen, Brussels, Oslo, Kuala Lumpur, Frankfurt am Main, Berlin, Mumbai, Budapest, Helsinki, Singapore, Montreal.

BENEFITS

- Full A-SMGCS exploitation
- Safety enhancements under all weather conditions
- Improved situational awareness
- Reduced incursion risk
- Seamless integration with ADS-B and multilateration surveillance solutions from other vendors

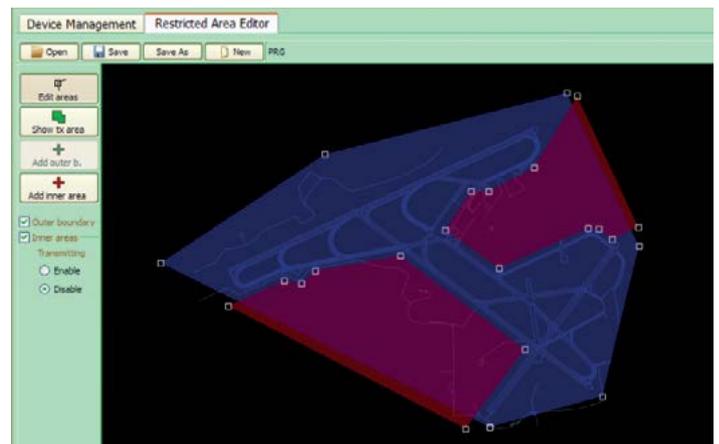


Certifications

SQUID has been tested under regulation number 10 of the Kraftfahrt-Bundesamt, Germany. The SQUID design has passed all applicable E1 tests and has been certified compliant. In addition, SQUID units have been marked with CE designation and have been CAA type approved under ICAO Annex 10.

Area Management

SQUID by ERA fully supports the concept of „area management“ in order to limit non-essential transmissions. The system allows operators to define discrete boundaries outside of which the SQUID unit will stop transmission. Transmissions recommence only when the unit is once again inside the defined area. Areas to be managed are defined using ERA’s configuration management tool.



Area Management Editor of SQUID configuration SW.

„The selection of ERA to supply 110 vehicle-mounted SQUID transmitters for surface vehicle tracking in Brussels Airport is the result of the tendering procedure. ERA scored best on the defined evaluation criteria.“

- Karen Scheir, Project Development Department, Belgocontrol

FEATURES

- Water resistant cable connector
- Low electromagnetic emissions
- Small dimensions and weight
- Low power consumption
- Fully automated unattended operation



Permanent mount



Magnetic mount

Basic facts on ERA Company

ERA Company is a pioneer and leading supplier of next-generation surveillance and flight tracking solutions for the air traffic management and military markets. As one of the producers of the technologies of multilateration and ADS-B it has over 100 installations at airports and military bases in 55 countries on 5 continents. For half a century ERA has built a proud heritage delivering MLAT based solutions to ATM controllers. Apart from systems for the civil sector, ERA has developed the unique passive radiolocation system VERA-NG which is used as part of defence surveillance network and advanced border protection.