

Case study:

RFID Aero



Airbus Helicopters

Eurocopter Group was created in 1992 with the merger of the rotorcraft divisions of Aerospatiale (France) and Deutsche Aerospace (Germany).

In January 2014, the company was rebranded Airbus Helicopters.
Airbus Helicopters is the world leading helicopter manufacturer offering the most comprehensive range of civil and military helicopters in the world. Employing more than 22,000 people worldwide, the company fleet in service includes some 12,000 helicopters operated by 3,000 plus customers in 154 countries. Airbus Helicopters is part of Airbus Group, a global leader in aeronautics, space and related services.

Challenge

The increasing complexity of aircraft and the diversity of missions in remote geographical areas have a significant impact on the cost of maintenance. Reducing operating costs, enhancing security and improving aircraft availability, and competitiveness criteria are essential for operators. Improving the management of aircraft maintenance and in particular the knowledge of the configuration and monitoring of aircraft parts contribute to these objectives.

Airbus Helicopters chose an RFID solution to optimize and simplify helicopter parts life cycle management, and sought assistance from STid, a corporation that manufactures RFID technology and develops innovative RFID solutions. The system aims to identify and authenticate mechanical and avionic parts of an aircraft and integrate specific data on each part for maintenance and support activities.

Airbus Helicopters requirements for its RFID system were significant. The system would have to operate in an extremely harsh environment, and to be compliant with aerospace environmental standards withstanding heat shocks, large pressure fluctuations, and contact with liquids.

STid created a new passive on-metal RFID tags, called IronTag® to meet Airbus Helicopters specific needs. STid selected Impinj Monza X extended feature chip to power IronTag®, thanks to STid background with Impinj, and Monza X documented high performance and user memory.



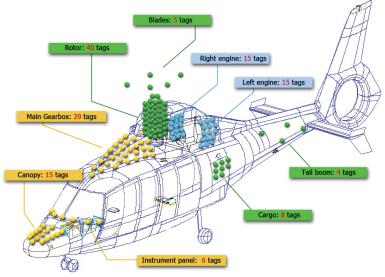
CLIENT:

Airbus Helicopters

- Helicopter manufacturer and support company
- Established in 1992
- Europe leading fully-integrated aeronautical group
- Has customers in 154 countries

BUSINESS BENEFITS:

- Reduced labor costs
- Reduced maintenance time
- Improved efficiency of maintenance and inventory



137 parts tagged with STid's IronTag®

LEARN MORE

Airbus Helicopters www.airbushelicopters.com/

STid

www.stid.com

How It Works

An embedded wireless system including RFID readers provides secured reading and updating RFID tags which have been installed on helicopter parts, including engine, mechanical (moving parts), and avionic parts.



STid's IronTag®

Three of STid flyable RFID readers are embedded on aircraft, covering all the areas where IronTag® are installed (front interior, front exterior, top floor, engine area, and tail). On maintenance crew request, the RFID readers collect data from the tagsand download it to a ground based system.

Actual configuration can be checked and compared to expected configuration for the mission. Post flight, the tags are updated with accumulated flight hours.

Additionally, a Workabout Pro 4 RFID mobile device (with embeded STid UHF antenna /module) are used by maintenance crews. It captures tag data and writes additional information inside the tags, such as the maintenance or inspection they have carried out.

Benefits

The system enables Airbus Helicopters to capture at any place and at any time the actual configuration of the aircraft and the status of each tagged part. Because the RFID system allows faster data sharing and decreases data processing, part maintenance and inventory is more efficient and simple.

This innovation increases maintenance effectiveness and aircraft availability and reduces cost significantly.

