



# Aerospace ID



## *Aerospace ID Technologies Programme*

Industry-driven research programme  
into the challenges for aerospace  
presented by ID technologies



# Aerospace ID Technologies Programme

*The Aerospace ID Programme will investigate industry-wide issues in relation to ID technologies. While a number of companies have experimented individually with Auto-ID technologies, such as RFID, most have found the investment difficult to justify.*

*By working together within the Programme, companies can ensure the technical solutions and processes that emerge are usable across the industry and throughout the lifecycle of aircraft and their components. The Programme aims to remove barriers to the widespread adoption of Auto-ID, significantly changing the business case for these technologies.*

## The challenge facing aerospace

Identification technologies are changing rapidly. The advent of cheap Radio Frequency Identification (RFID) tags and other data storage techniques means that significant amounts of information can be stored on tags fixed to components or consumables. Major challenges now exist for the use of such ID technologies in both civil and military aerospace industries.

## Impact of ID technologies

Areas that these technologies will impact include:

- Control of rotatable parts and their operational history
- Avoidance of use of uncontrolled components
- Tracking of key features of the service delivery to customers, such as ticketing, baggage and meals
- Configuration control of aircraft at delivery and through life

*"As a cooperative entity owned by the air transport industry, SITA SC's mission is to address issues of common interest for our members, especially communication technologies, standards and services which help the industry reduce its costs and achieve greater business efficiencies. SITA SC is keen to participate in the Aerospace ID programme as the implementation of ID technologies offer a great potential for improvements in the airline, aerospace and airport sectors".*

**Rene Azoulai**, Senior Vice President, SITA

## Research programme themes

Consultations with major aircraft manufacturers, their suppliers and customers have developed the initial themes for this research programme. More themes are being added as new sponsors join the Programme, bringing their own specific issues. Current themes are:

### Life Cycle Information Management

Managing the evolution of a component or piece of equipment through its life cycle.

### ID Application Matching

Guiding the selection of the best ID delivery solution to suit production processes and operating environments.

### Sensor Integration

Evaluating ways of integrating ID data with other sensor information.

### Data Synchronisation

Evaluating methods and strategies for the synchronisation of lifecycle data between components and networked resources.

### Track and Trace

Designing and evaluating ways to integrate ID data into existing and new track-and-trace strategies

### Security

Evaluate mechanisms for ensuring product pedigree, security and integrity of data on tags and on networked databases

*"RFID holds immense promise for making the seamless, fully integrated supply chain much more of a reality. Working together with other industry leaders on this initiative will accelerate progress toward that goal."*

**Charles Kienzie**, Senior VP Operations, Aviall





## Benefits of joining the research programme...

- have access to the latest research findings
- steer research to focus on issues relevant to your company
- gain competitive advantage from early adoption of technology
- help shape the Aerospace market for Auto-ID solutions

### Programme operation

The Programme is driven by the end users of the technology: the aircraft manufacturers and their suppliers, the operators, the owners and the MROs.

#### Foundation members

End users who join the Programme have the key advantage of being able to steer the research work into areas of their own special interest. This group forms the End-user Board.

#### Vendor members

Vendors of the technology who join the Programme are also able to influence the research and identify placement opportunities for their offerings, as well as future areas for new product development.

#### Co-ordination Board

A full-time Programme Director with significant Aerospace experience has been appointed. The Programme Director, the Research Director and end-user representatives form the Co-ordination Board.

### Building on past experience...

A similar structure has worked successfully in the Auto-ID Center project set up to develop standards and drive research into the deployment of RFID technology in the retail supply chain.

The Auto-ID Lab at Cambridge is co-ordinating the project. The lab has more than 25 man-years of experience in developing and driving standards for ID technologies. The fruits of this work can be seen in the deployment of RFID tags in supermarkets and fast-moving consumer goods manufacturers around the world.

The Cambridge Auto ID Lab is part of a worldwide network of labs with extensive experience of all aspects of Auto-ID technology. The Aerospace ID Technologies Programme draws on this bank of expertise.



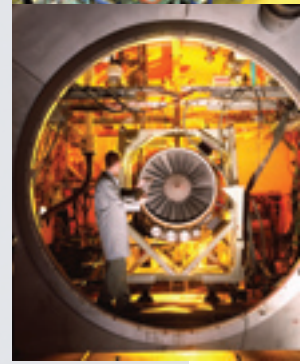
[www.autoidlabs.org](http://www.autoidlabs.org)

*"Airbus sees this research programme as a key industry wide effort in overcoming obstacles to implementation and developing deep understanding of the issues involved in the deployment of these identification technologies".*

**Jens Heitman**, Senior Manager, Systems and Equipment Standardization, Airbus

*"BAE Systems working within the Aerospace ID programme is enabling the evolution of emerging ID technologies through collaborative research and innovation. A demonstration of this is the commitment to a trial application within the Nimrod aircraft programme's supply chain."*

**Tony Croughan**, Group Leader, Supply Chain Logistics, BAE Systems



## Joining the programme

The initial programme runs for 18 months and employs a range of researchers working on projects focusing on the themes outlined in this brochure. As further members join, extra projects and themes are being added to the programme, subject to the approval of the Board.

Intellectual property generated during the programme remains the property of the inventor or their organisation. Research outcomes and IP are available exclusively to participating companies for six months, prior to wider dissemination.

To join the programme there is a one-off fee, with reduced rates for smaller companies, dependent on turnover.

## Further information

For more details please see our website:

[www.aero-id.org](http://www.aero-id.org)

or contact:

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Aerospace ID Technologies Programme members (April 2006):



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