



**Radio Frequency Identification
Aerospace Alignment Team (RAAT)
DoD Standardization Program Conference
March 14, 2007**

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Strategic Standardization Forum for Aerospace



Background of the SSFA:

- Chartered by the CEOs of US aerospace companies
- Neutral forum for all stakeholders in aerospace standards
 - Industry
 - Government (DoD, DoC, NASA, etc.)
 - Regulatory agencies
 - Standards bodies
 - Customers
- **Working to determine the best standards solutions to enhance the development, delivery, management, and utilization of aerospace standards**



SSFA Goals...

- Provide a single point of contact for any organization/activity wanting a US aerospace industry standards position
- Provide the US aerospace industry with a single voice to organizations regarding standards issues
- Foster partnership between public and private organizations
- Enhance coordination of US input into global standards



Promote a global aerospace standards infrastructure

SSFA Objectives...



- Determine industry action or position in response to an external event/issue
- Facilitate requirement definitions for standards products or processes common across the industry and standards organizations



Promote, encourage, and facilitate global standardization



Provide education, awareness and advocacy for standardization across all stakeholders



Provide visibility on current efforts to promote or encourage harmonization and reduce duplication

RFID Aerospace Alignment Team (RAAT) - Origin



- **In order to provide visibility on current efforts and to promote harmonization and reduce duplication, the Aerospace and Defense community formed the RFID project team under the SSFA**
- **The first meeting was held November 29 & 30, 2006 in Washington D.C**
- **RAAT is open to standards organizations and employees of companies that are working on RFID in the Aerospace and Defense arena**
- **The initial meeting had the following standards organizations and company representation:**

RFID Aerospace Alignment Team (RAAT) – First Meeting



➤ Standards organizations

- **AIA – Aerospace Industries Assoc. (US)**
- **AIAA – American Inst. of Aeronautics and Astronautics**
- **AIM Global – Assoc. for Automatic Identification and Mobility**
- **ATA – Air Transport Assoc.**
- **EPCglobal**
- **SAE – Society of Automotive Engineers, Aerospace**
- **JTC1/SC31**
- **ISO TC184/SC4**
- **OASIS PLCS**

➤ Other organizations

- **Auto ID Labs – Univ. of Cambridge**

RFID Aerospace Alignment Team (RAAT) – First Meeting



- **Employees from the follow companies/organizations**
 - **Lockheed Martin**
 - **Pratt Whitney (UTC)**
 - **The Boeing Company**
 - **Northrop Grumman**
 - **LXE Inc.**
 - **BAE Systems**
 - **DoD**
 - **AIT Office**
 - **Supply Chain Integration**
 - **Technology Solutions**
 - **Intelleflex Corporation**

RFID Aerospace Alignment Team - Objectives



- **Identify major organizations who are actively working on RFID in Aerospace and Defense**
- **Create a body of knowledge of all relevant standards, guidelines and activities related to RFID in Aerospace and Defense**
- **Identify RAAT scope**
- **Create a RFID taxonomy (classification)**
- **Identify gaps and overlaps**
- **Establish next steps and invite others to attend**

RFID Aerospace Alignment Team – Scope Defined



Track and Trace - Location of component

Government Furnished Property

Ground Support Equipment

Asset tracking

Raw materials tracking and allocation

Packaging and shipping

Regulatory Compliance

FAA

DoD

EASA

Hazardous materials

Import/Export

Health, Safety and Human factors

Use of RFID to protect and protection from

Part identification – UID, NSN, EPCglobal

Part end of life - Recycle or destroy part?

Expiration date

Chain of custody

Maintenance

Write and update maintenance records

Removal and replacement of parts

Prediction or condition-based maintenance forecasting

Modification/Refurbishment

Environmental monitoring – using sensors and data loggers for temp, shock, vibration etc.

Configuration management

Rev level of part

Software rev level

Warranty Tracking

Personnel authentication

Reliability data

No fault found

Inventory Control

RFID Aerospace Alignment Team – Taxonomy



- Hardware - Physical aspects of tags and readers
 - Hardware Infrastructure Management
 - Hardware - Tags
- Air Interface Protocol
- Conformance and Performance Standards
- Data Content - Identifiers, structure, semantics and syntax
 - Data Security
- Application Communication Protocols
- Applications
- Operational Guidance
- Other

RFID Aerospace Alignment Team – Industry Role



Non-Sector Specific

- Hardware - Physical aspects of tags and readers
 - Hardware Infrastructure Management
 - Hardware - Tags
- Air Interface Protocol
- Conformance and Performance Standards

Aerospace and Defense Specific

- Data Content - Identifiers, structure, semantics and syntax
 - Data Security
- Application Communication Protocols
- Applications
- Operational Guidance

RFID Aerospace Alignment Team – Next Steps



- **Circulate meeting minutes and taxonomy widely (standards groups and industry) to create awareness and include more standards organizations (IEEE, IATA, SITA, ARINC)**
- **Share taxonomy within standards groups and industry to identify gaps in information**
- **Request input from groups – comments and corrections on our activities (taxonomy and minutes)**
- **Create RFID standards gap and overlap analysis**
- **Continue to gather data and update information**
- **Create RAAT folder on SSFA website to hold list of RFID standards and guidelines (COMPLETE)**

RFID Aerospace Alignment Team – Website Collection



- **RAAT information folder located on SSFA website**
- **Web address:**
<http://www.ssf-aerospace.org/>
- **Click on “Projects”**
- **RAAT project is number 008**
- **Folder will contain:**
 - **List of standards organizations involved with RFID**
 - **Contact information for organizations**
 - **Index of RFID published standards and guidelines**
 - **Where to obtain copies**

RFID Aerospace Alignment Team



Questions?

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