Airlines for America

We Connect the World

Airline Requirements for Alternative Aviation Fuel

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November 14, 2012

A4A Fuel Technical Committee Membership

- Mark Bourdeau, United Airlines, Chair
- Nathan Gerlich, Southwest Airlines, Vice Chair
- Jack Schirmer, Alaska Airlines
- Haydee Carlton, American Airlines
- Bruce Robinson, Atlas Air
- Seth Dillon, Delta Air Lines
- Mohammed Ahmed, Evergreen International Airlines
- Larry McKinnerney, Federal Express Corporation
- Robert Maguffin, JetBlue Airways
- Kevin Flick, UPS Airlines
- Hung Nguyen, US Airways

- John Antonopoulos, Air Canada (Associate Member)
- Martin Hunnybun, Energy Institute (Technical Contributor)
- Robert Iasenza, FSM (Technical Contributor)

A4A Industry Affiliations

- ASTM International
- ASTM International Coordinating Research Council (CRC)
- Coordinating Agency for Supplier Evaluation (CASE)
- Energy Institute (EI)
- International Air Transport Association (IATA)
- International Air Transport Association Fuel Quality Pool (IFQP)
- National Fire Protection Association (NFPA)
- SAE International (SAE-85, G-12, G-16)

A4A Fuel Technical Committee Activities

- A4A Fuel Technical Committee oversees the fuel quality process
  - Mark Bourdeau United Airlines Chair
  - Nathan Gerlich Southwest Airlines Vice Chair
    - Ad hoc committee wrote MIA Variance Procedures
- ATA Spec 103 Work Group oversees revisions to the specification
  - Chaired by Nathan Gerlich-Work Group assembled from every level of the supply chain
  - Spec 103 focuses on airport fuel quality
  - In use at over 500 airports and US military bases
  - General redraft will close gaps with other internationally used fuel quality standards
  - Last edition is January 2009
  - Revision expected to be published by 1st quarter 2013

A4A Partners in Fuel Quality

- **A4A has teamed with industry experts and associations to ensure that jet fuel quality standards are recognized, adopted and enforced worldwide:**
  - **ASTM International**
  - **Defense Logistics Agency-Energy***
  - **Energy Institute***
  - **International Air Transport Association**
  - **Joint Industry Group**
  - **SAE International**
  - **Shared Inspection Group**

    *** Memorandum of Understanding in place**

A4A Partners in Fuel Quality

- **A4A actively supports IATA in the rapid resolution of fuel quality problems outside the USA**
  - **Common interest in safety and quality, and avoidance of disruptions**
- **A4A Members Contributed to the Manual on Civil Aviation Jet Fuel Supply**
  - **Industry "signpost" document written for International Civil Aviation Organization (ICAO)**

A4A Fuel Volume Demand

- **A4A members consume 17 billion gallons of jet fuel in the US**
- **DLA-Energy/USAF is investigating changing to Jet A in the US at shared facilities**
  - **Potentially adds another 3-4 billion gallons annually to US volume**
- **A4A and DLA-Energy may use up to 50% alternative fuel blends**
- **Largest 25 US airports consume over 90% of the US jet fuel**
- **Regional alternative fuel production would:**
  - **Shorten supply chains**
  - **Enhance supply security**
  - **Provide regional employment opportunities**

A4A Fuel Quality Requirements

- **A4A and 5 member airlines actively support ASTM in the development of rigorous fuel quality standards**
  - **ASTM D1655**
  - **ASTM D7566**
- **A4A works with its supply chain world-wide to ensure that the fuel quality is maintained from the refinery to the wing-tip**
- **Working with CAAFI to keep the focus on fuel quality**
- **A4A Members Contributed to the Manual on Civil Aviation Jet Fuel Supply**
  - **Industry "signpost" document written for International Civil Aviation Organization (ICAO)**

Supply Chain Fuel Quality Documents

REFINING	CERTIFICATION	DISTRIBUTION	AIRPORT
	JIG 3	JIG 3	JIG 1, 2 AND 4* *small airports
			ATA 103** **primarily US
EI 1530	EI 1530	EI 1530	EI 1540
	API 1595	API 1595	

Basic Strategy to Improve Fuel Quality

- **Meet with key refiners, terminal operators, pipeline companies individually to establish quality goals**
- **Establish mutual quality goals and understand the potential problems**
  - **ASTM D 1655 and D 7566 are used as the key specifications**
  - **Local accommodation (i.e. protocols for blending of fuels on-airport)**
- **Establish a communication network to facilitate problem resolution**
- **Meet periodically with each supply chain element in ad hoc committees or at ASTM, etc.**
- **Reinforce the performance with each supply chain element**

Review of Progress

- In the initial stages of quality partnerships
- MOU with DLA-Energy assisting in cooperative relationships
  - Joint efforts with USAF and GIFTPAC
- Airlines focused, coordinated and unified in their purpose
- Fuel quality excursions dramatically reduced over the past 2 years
- Airline participation in key industry groups dramatically increased-suppliers are taking notice
- ICAO Signpost Manual will be a key tool for future airport construction

Future Activities

- **Adopt policies and programs which support the A4A Board of Directors 2012 goals and objectives**
  - **Alternative fuels-ASTM**
  - **Jet fuel supply chain management**
- **Research and implement programs which meaningfully and economically enhance fuel quality and safety**
- **Encourage the use of the standards referenced in ICAO Signpost Manual for future airport construction**

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