The Commercial Aviation Alternative Fuels Initiative® (CAAFI) seeks to enhance energy security and environmental sustainability for aviation through alternative jet fuels. As a coalition of U.S. commercial aviation interests, CAAFI is a focal point for engaging with the emerging alternative fuels industry. It enables its diverse stakeholders to build relationships, share and collect data, identify resources, and direct research, development and deployment of alternative fuels. CAAFI aims to promote the development and deployment of alternative fuels that offer equivalent levels of safety and compare favorably with petroleum-based jet fuel on cost and environmental bases, with the specific goal of enhancing the security of North American energy supply.

CAAFI is sponsored by the Federal Aviation Administration (FAA) and three trade associations: the Aerospace Industries Association (AIA), Airlines for America (A4A) and Airports Council International-North America (ACI-NA). CAAFI stakeholders include all elements of the international commercial-aviation industry, fuel suppliers, universities and U.S. government agencies.

CAAFI Approach

Aviation is well positioned to pursue alternative fuels. The industry is international in scope, has a highly networked supply chain with concentrated nodes of demand, and has a unique capacity to function in an aligned and coordinated manner.

The four CAAFI teams – Fuel Certification and Qualification, Environment, Business, and Research and Development – meet regularly to share progress, identify gaps and hurdles, determine next steps to facilitate earliest possible development and deployment of jet fuel alternatives, and to expand global engagement.

Accomplishments

- Collaboration with FAA and ASTM to establish the drop-in jet fuel approval concept, followed by approval of Fischer-Tropsch and hydrotreated jet fuels
- Fuel Readiness Level endorsed as a best practice by the International Civil Aviation Organization
- Feedstock Readiness Level developed in collaboration with USDA, FAA, and RITA
- Aviation-fuel-specific greenhouse gas lifecycle analyses (LCAs) completed for multiple fuels
- Co-hosting of Sustainable Alternative Fuels Cost Workshop with Dept. of Energy Biomass Program
- Formation of strategic alliance between airlines (via A4A) and the Defense Logistics Agency, creating “single market” for alternative jet fuel
- Aviation a priority for “concerted effort” for biofuel deployment by U.S. government
- “Farm to Fly” resolution between A4A, Boeing and USDA to accelerate commercial availability of sustainable aviation biofuels in the United States
- Joint work plans developed with German airreg and Australian Initiative for Sustainable Aviation Fuels