



Commercial Aviation Alternative Fuels Initiative

Supporting solutions for secure and sustainable aviation

“CAAFI brings together manufacturers, airlines, airports, the Dept. of Defense, the Dept. of Energy and the Environmental Protection Agency and puts them at the same table. When you get that kind of firepower together and you start to explore, good things happen.”

Marion Blakey
Former FAA Administrator

CAAFI Sponsors

Airports Council International-North America (ACI-NA)

Aerospace Industries Association (AIA)

Air Transport Association (ATA)

Federal Aviation Administration (FAA)

Background

The Commercial Aviation Alternative Fuels Initiative (CAAFI) seeks to enhance energy security and environmental sustainability for aviation through alternative fuels. CAAFI is a forum that focuses the efforts of the U.S. Commercial Aviation supply chain to engage the emerging alternative fuels industry. It enables its diverse participants to build relationships, share and collect needed data, and motivate and direct research on aviation alternative fuels.

CAAFI sponsors include three trade associations: Airports Council International-North America (ACI-NA), the Aerospace Industries Association (AIA) representing U.S. manufacturers, the Air Transport Association (ATA), representing U.S. airlines; and the Federal Aviation Administration's (FAA) Office of Environment and Energy. CAAFI participants are drawn from all elements of the international commercial aviation industry, fuel suppliers, Universities and over a half dozen U.S. government agencies including the Departments of Defense and Energy, and NASA.

Goal

CAAFI's goal is to promote the development of alternative fuel options 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 security of energy supply.

In 2006, for the first time in history, fuel became the single largest component of U.S. airline operating cost. Concern about the environmental impacts of aviation growth is also rising. While U.S. commercial aviation consumes less than 3% of U.S. total energy use (EIA), it ultimately drives an estimated 5.8% of U.S. gross economic output and 8.8% of national employment (ATA).

Aviation is international in scope, highly networked within its supply chain and, because of a unique capacity to function in an aligned and coordinated manner, well positioned to pursue alternative fuels.

Accomplishments

CAAFI participants are evaluating alternative fuels in four areas: 1) Certification and Qualification, 2) Research & Development, 3) Environment, and 4) Economics, Business and Policy. Participants meet annually to give updates on the state of alternative fuel developments in these areas, identify gaps and hurdles, and decide on next steps required in the research, development and deployment process.

Work to date includes:

- **Creating roadmaps** to communicate aviation needs and solutions
- **Disseminating flight-test information** on synthetic fuels and bio-fuels
- **Supporting R&D** on low carbon fuels sourced from plant oils, algae and biomass
- **Understanding life-cycle environmental impacts** of production and use of alternative fuels
- **Planning for certification** in 2008 of a 50% synthetic fuel, 2010 for 100% synthetic fuel, and 2013 for bio-fuels
- **Developing a handbook** for calculating environmental and economic benefits and costs of alternative fuels for airports
- **Educating public and private interests** on the unique needs and practical solutions for aviation in the area of alternative fuels

To learn more about CAAFI, contact:

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