



Press Release

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14 Airlines Sign Landmark MOU for Camelina-based Renewable Jet Fuel & Green Diesel

Subsequent purchase agreements for up to 750 million gallons of renewable fuels would remove 14 billion pounds of CO2 over 10 years

New biojet production facility to be built in Washington state

SEATTLE (December 15, 2009) Seattle-based AltAir Fuels today announced it has entered into a Memorandum of Understanding with 14 major airlines from the United States, Mexico, Canada and Germany, led by the Air Transport Association (ATA), to negotiate the purchase of up to 750 million gallons of renewable jet fuel and diesel derived from camelina and produced by AltAir Fuels. This unprecedented announcement demonstrates the airlines' determination to reduce emissions and accelerate the deployment of renewable jet fuel. The renewable fuel, to be produced at a new facility in Anacortes, Wash., would replace about 10 percent of the petroleum fuel consumed annually at Seattle-Tacoma International Airport, reducing carbon emissions by about 14 billion pounds over 10 years. "Today's announcement reinforces the proactive steps that airlines are taking to stimulate competition in the aviation fuel supply chain, contribute to the creation of green jobs, and promote energy security through economically viable alternatives that also demonstrate environmental benefits," said Glenn Tilton, ATA board chairman and UAL Corporation and United Airlines chairman, president and CEO. "Our intention as an airline industry is to continue to do our part by supporting the use of alternative fuels. We urge the U.S. government and the investment community also to do their part to further support this critical energy opportunity," said Tilton.

The participating airlines include, American Airlines, Air Canada, Alaska Airlines, Atlas Air, Delta Air Lines, FedEx Express, Hawaiian Airlines, Jet Blue Airways, Lufthansa German Airlines, Mexicana Airlines, Polar Air Cargo, United Airlines, UPS Airlines, and US Airways.

"Our intent to negotiate a potential purchase with AltAir is an important step on the path to reducing emissions through an affordable and sustainable alternative aviation fuel," said Bill Ayer, Alaska Air Group's chairman and chief executive officer. "Alaska Airlines looks forward to further exploring this promising regional project, which could bring significant environmental benefits and economic opportunities."

Camelina oil will be converted into both renewable jet fuel and diesel at a new facility to be located at the existing Tesoro oil refinery in Anacortes, Wash. Based on analysis of U.S. Department of Agriculture data for comparable projects, AltAir estimates the project will create hundreds of jobs in a variety of industries, including farming and agricultural logistics, engineering and construction, and operations, maintenance and refining.



“This is a great example of collaboration among leading Washington state companies to address some of the most pressing issues of our time -- climate change and economic development,” said Governor Christine Gregoire. “Through the leadership of Boeing our state has become known for building world class, innovative airplanes. We will soon become known for producing innovative, low carbon fuels to power them, creating much needed jobs and economic impact along the way.”

The facility will have a nameplate capacity of 100 million gallons per year, and is slated to begin operations in 2012. The camelina oil will be sourced from Montana-based [Sustainable Oils](#), which has the largest camelina research program in North America and production contracts with numerous farmers and grower cooperatives. AltAir has chosen refining technology developed by UOP, LLC, a Honeywell company, which has already produced biojet fuel for various test flights and U.S. military contracts in 2009.

“I am pleased to see the aviation community make such an important commitment to the development of sustainable biofuels,” said Jennifer Holmgren, vice president and general manager of Renewable Energy & Chemicals with Honeywell’s UOP. “It is efforts like this one that will guarantee that biofuels made from sustainable, second generation sources can make an impact in the near term.”

AltAir Fuels’ renewable jet fuel and green diesel are to be blended with petroleum-based jet fuel and diesel at the Tesoro Anacortes refinery, and transported to Seattle-Tacoma International Airport and other locations through the existing pipeline system. The renewable jet fuel and diesel produced by AltAir Fuels will be fully compatible with the existing transportation fuel infrastructure, and will require no special handling. The fuel will be consumed by aircraft owned and operated by airlines who have signed the MOU, as well as heavy machinery operated at the Port of Seattle facilities.

Bruce Smith, Tesoro’s Chairman, President and CEO, said of the company’s involvement in the project, “As an independent manufacturer of fuels, Tesoro is committed to finding new and competitive sources of oil to meet the changing fuel needs of our customers. We at Tesoro are excited to be involved with this innovative technology using domestic, sustainable camelina oil to produce next-generation jet and diesel fuels using the existing assets and expertise that make our company successful.”

“As an airport committed to environmental stewardship, we are pleased to be in a position to support our airline partners in advancing the goal of using bio jet fuel and reducing CO2 emissions,” said Sea-Tac Airport Managing Director Mark Reis. “We are striving to be an aviation leader for providing commercial bio jet delivery.”

Camelina is the most heavily tested and proven renewable fuel feedstock, having already powered two commercial aviation test flights – Japan Airlines and KLM – in 2009. In addition, the U.S. military has performed ground engine tests on camelina-based jet fuel in preparation for FA-18 Hornet fighter jet flights planned for spring 2010.



Boeing (NYSE:BA) is leading the ASTM Emerging Fuels Taskforce, which is working to gain the necessary approvals for bio-derived fuels for aviation. Approval is expected in 2010, with camelina becoming part of a portfolio of biomass sources used to create a sustainable aviation fuel supply.

Camelina has a number of clear advantages as a feedstock for renewable jet fuel, including:

1. It is readily available today. Tens of thousands of acres are already under management with hundreds of thousands more planned in the coming years.
2. Camelina does not require infrastructure modifications. It can be planted and harvested using existing equipment and technology. The fuel can be stored and transported using existing tank and pipelines, and can also be used with existing and unmodified jet and diesel engines.
3. Camelina-based fuels reduce emissions. A lifecycle analysis of camelina by Michigan Tech University has shown camelina reduces carbon emissions by about 80 percent compared to petroleum fuel.
4. Camelina seeds have naturally high oil content, and the plant itself requires less water, fertilizer and herbicides, and can also grow on marginal land.
5. Camelina is grown in rotation with wheat and as such, does not displace food crops. It also provides new sources of revenue and jobs for farmers.
6. Camelina is inexpensive, since the oil is only usable as a source of renewable fuels. So once the costs and a reasonable margin have been paid to the farmer, the oil can be competitive with crude oil at today's prices, and potentially even more so if crude oil prices rise.

"We commend the ATA and its member airlines' commitment to reducing carbon emissions and the leadership role they have taken in the airline industry," said Tom Todaro, CEO of AltAir. "Our camelina-based fuels will reduce emissions, provide American farmers additional revenue sources, while creating hundreds of new jobs and reducing our dependency on imported oil. We look forward to replicating this model in other parts of the country and the world in the coming years."

About AltAir Fuels

AltAir Fuels (www.altairfuels.com) was formed in 2008 to develop projects for the production of jet fuel from renewable and sustainable oils. The company and its partners are designing and building a network of renewable jet-fuel production facilities. The first plant, which will be located in the U.S. and create hundreds of jobs and reduce billions of pounds of carbon emissions, is expected to begin production in late 2012.

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