

REUTERS

Airline crisis boosts biofuel drive

Wed Jul 16, 2008 1:52pm EDT

By Sarah Marsh

FARNBOROUGH (Reuters) - Algae and nuts are among the alternative sources of fuel being considered by an increasingly skittish aviation industry as an alternative to petroleum, whose price rises threaten airlines with bankruptcy.

With oil prices poised to break through the \$150 a barrel barrier, biofuels based on sources of energy like these no longer seem far-fetched -- but they will take years to develop and no-one will be flying in a farm-fuelled jet any time soon.

Discussion about potential alternatives to help airlines cope with high fuel prices and meet environmental requirements buzzed round the chalets at the Farnborough air show this week, as aerospace firms vied to show off their green credentials.

Environmentalists, however, said it was empty talk.

"At \$70 a barrel, people were saying 'it is never going to happen'. At \$150 a barrel, it starts to look interesting," said Ric Parker, Rolls-Royce's research and technology head.

The British engine maker said this week it was starting a scientific test program with British Airways to investigate alternative aviation fuels.

"There is some realization that the industry needs to be proactive .. and if they aren't then we'll be forced by governments to be proactive," said Paul Adams, senior vice president of engineering at U.S. rival Pratt & Whitney.

European Union lawmakers recently approved a deal to include aviation, which they say generates 3 percent of carbon dioxide emissions, from 2012 in the EU's Emission Trading Scheme. The airline industry has criticized the move as a costly burden.

"(For) the people who figure out how to make (alternative fuels) work, it will be a very profitable thing for them in the long term," Adams said.

Grand schemes for alternative fuels have been in incubation for years, with research progressing slowly as the aviation industry requires a fuel with greater specifications than the rest of the transport sector -- including low freezing points.

But high oil prices and concerns over pollution have forced the industry to step up their efforts towards finding a sustainable and economically viable alternative to oil-based kerosene, which has doubled in price over the past year.

Another factor driving research is the strategic desire for fuel independence, especially in the United States.

The U.S. Air Force aims to have at least a 50/50 blend of jet fuel and synthetic fuel on all aircraft by 2017, spokesman Gary Strasburg said in an emailed statement.

So far synthetic fuels based on non-renewable sources such as gas and coal have the edge over plant-based biofuels.

European planemaker Airbus this year flew one of its A380 superjumbos using synthetic fuel from natural gas, known as gas-to-liquid, which is almost free of sulphur, can be used with current engines and could be available soon.

FOOD COMPETITION

Biofuels, currently mainly produced from crops such as grain, vegetable oils and sugar, are seen by advocates as a better alternative fuel since they could cut emissions of greenhouse gases and reduce dependence on fossil fuels.

Nuts from Amazon rainforests helped fuel the world's first commercial airline flight partly powered by renewable energy earlier this year.

Critics say an expansion in the area of crops grown for energy has helped drive up food prices, and some scientists have questioned the environmental benefits of so-called first-generation biofuels.

"The real environmental improvement will come with bio-to-liquid, but the difficulty is not to compete with the food chain," said Axel Krein, Airbus' senior vice president for research and technology.

Using algae is an option because it would not compete with human food needs, contains a lot of energy and uses less area than crops, he said. Still, "significant and meaningful" quantities of biofuels would not be available before 2015-2020.

Airbus chief Tom Enders said it would take time to replace kerosene, adding that a 30 percent cut by 2030 was possible.

Environmental group Greenpeace is skeptical. "Alternative fuels are a pipe dream", campaigner Anna Jones said.

"The idea that alternative fuels will solve climate change sometime in the distant future is just a distraction when we need to start slashing our emissions now," Jones added.

Improved engine design could deliver greater savings and contribute more to reducing carbon emissions than alternative fuels, Charles Alcock, of Aviation International News, said.

Planemakers say they have reduced aircraft fuel burn and carbon dioxide emissions by 70 percent and noise by 75 percent since the early 1970s, mainly through new technology.

(Additional reporting by James Regan, Editing by Tim Hephher)