

## **Boeing and Japan Airlines Flight Demonstration of Second-Generation Biofuel Planned**

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**SEATTLE, June 23, 2008** -- Boeing [NYSE: BA] and Japan Airlines (JAL) will make a significant contribution to the search for a viable, sustainable, second-generation biofuel for commercial use by the aviation industry. With the close cooperation of Pratt & Whitney, the airline will conduct a demonstration flight to accelerate current research and development into the creation of a second-generation biofuel.

A second-generation biofuel will be blended with jet fuel and tested in one of the four engines of a JAL Boeing 747-300 aircraft equipped with Pratt & Whitney JT9D engines. The biofuel to be used has not yet been decided. JAL will provide the airplane and staff for the short, approximately one-hour, demonstration flight out of an airport in Japan scheduled by March 31, 2009. The flight will be the first biofuel demonstration by an Asian carrier and the first using Pratt & Whitney engines.

Boeing, JAL and Pratt & Whitney have specifically opted to use a second-generation biofuel that is exponentially more efficient and sustainable energy than first-generation counterparts. Second-generation biofuels do not compete with natural food or water resources and do not contribute to deforestation practices. First-generation biofuel sources, such as corn and soybean derivatives, typically require large areas of landmass and are food crops predominately grown for human consumption. Second-generation biofuels avoid the situation in which a food and fuel directly compete for the same natural resources.

The JAL flight demonstration will contribute significantly to current research and development into the creation of a second-generation biofuel tailored to the specifications of existing modern jet aircraft and engines. The goal is to find an alternative fuel that will help reduce the impact of carbon dioxide emissions (CO<sub>2</sub>) generated by the aviation industry, while also reducing the industry's reliance on traditional petroleum-based fuels.

At an event held in Tokyo to announce the planned biofuel demonstration flight, JAL Group President and CEO Haruka Nishimatsu said, "Our participation in the search for a viable second-generation biofuel is a clear signal to everyone of our strong commitment to increasing the environmental sustainability of the JAL Group and the airline industry.

"For more than 15 years, our airline has been implementing a variety of measures designed to reduce and offset the impact our business activities have on the environment. Not only are we endeavouring to reduce our own footprint on the environment," he added, "but we are throwing our support and resources behind projects such as this, which will help in the wider battle against climate change and global warming."

"Supporting Japan Airlines in this biofuel trial makes both economic and environmental sense," said Boeing Japan President Nicole Piasecki. "Boeing salutes Japan Airlines' ongoing efforts to demonstrate the highest levels of environmental commitment through innovation and continuous technological improvement. Together with Pratt & Whitney, we have an opportunity to write a new chapter in our relationship, one that will help pioneer new and sustainable biofuel solutions for the good of the entire commercial aviation industry."

"We are proud to partner with Boeing and our long-time customer Japan Airlines to demonstrate the performance, safety and viability of second generation biofuels as part of our ongoing commitment to the environment," said Todd Kallman, president, Pratt & Whitney Commercial Engines. "Pratt & Whitney is aggressively researching and testing alternative fuels for the aviation industry in an effort to reduce greenhouse gas emissions, improve engine efficiency and reduce airline operating costs. We look forward to working closely with JAL and Boeing as we continue this research."

The highest levels of safety will be adhered to throughout the whole biofuel flight demonstration process. Boeing will conduct a preliminary biofuel screening evaluation after which the best performing biofuel will be selected by the end of August 2008. The biofuel will be used in only one of the four engines of the Boeing 747-300 airplane operated by JAL.

The JAL Group has been conducting a variety of measures that are helping to reduce its environmental footprint. It is targeting a 20 percent cut in the CO<sub>2</sub> emissions per ATK of its fleet by 2010, compared to 1990 levels. It has already achieved nearly 16 percent reduction since 1990. Fleet renewal through the introduction of more fuel efficient aircraft has been indispensable to the airline group achieving these CO<sub>2</sub> emission cuts. Almost 30 percent of the aircraft in the JAL fleet have been delivered in the past five years as it has retired 90 older models. The airline still has outstanding orders for more than 80 new airplanes, including the super-advanced Boeing 787 Dreamliner.

For additional information on the Boeing commitment to progressive environmental performance, visit <http://www.boeing.com/environment>.

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Contact Info:

Terrance Scott

Boeing Commercial Airplanes

Communications

+1 206-766-2949

[terrance.scott@boeing.com](mailto:terrance.scott@boeing.com)

Stephen Pearlman

Japan Airlines

+ 81-3-5460-3109

[stephen.pearlman@jal.com](mailto:stephen.pearlman@jal.com)

Mathew Perra

Pratt & Whitney

+1 860-595-6515

[matthew.perra@pw.utc.com](mailto:matthew.perra@pw.utc.com)

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