

NEWS RELEASE

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Lindbergh-Lycoming Grant Awarded to Thomas Ehresman
***Project to Focus on Eliminating Leaded Aviation Fuel with a
New Direct Injection Igniter Fuel Nozzle***

MINNEAPOLIS, July 25, 2007 — The Lindbergh Foundation announced today that **Tom Ehresman**, an inventor from Loveland, Colorado, has been awarded a 2007 Lindbergh-Lycoming Grant for his project entitled, “*Creating a Direct Injection Igniter Fuel Nozzle to Eliminate the Use of Leaded Fuels in Existing High Power Density Aircraft Piston Engines.*” This is the second Lindbergh-Lycoming grant to be awarded in the newly established partnership between Lycoming Engines and the Lindbergh Foundation to specifically fund a project focusing on aviation/aerospace.

Aviation gasoline is the only fuel in the world that still contains lead. Soon, 100-octane low lead aircraft fuel (100LL) will be discontinued because of the tetra-ethyl-lead (TEL), which is added at the refinery, and is highly toxic. Current high performance aircraft piston engines require this 100LL to operate without failure at the higher power settings. The move to unleaded fuels is fast approaching and no viable alternative fuels have been found that these higher power piston engines can use without incurring damage or greatly decreasing operational limitations. Mr. Ehresman plans to continue developing a direct injection fuel nozzle system that would allow numerous types of fuels to be used in current high-performance aircraft piston engines, including jet



fuel, diesel, kerosene and other liquid fuels. Elimination of TEL will not only improve the air quality as lead is removed from fuel emissions, but would also allow refineries to consolidate refining operations and reduce fuel infrastructures, further reducing harmful emissions, risk of spills/pipeline lead and lower consumer fuel prices.

Mr. Ehresman received one of 14 Lindbergh grants awarded so far this year, the most grants issued

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by the Foundation since 1985. He was chosen from 150 applicants from around the world. Lindbergh Grants are made in amounts up to \$10,580, a symbolic amount representing the cost of building Charles Lindbergh's plane, the *Spirit of St. Louis*, in 1927. To date, more than \$2.7 million has been awarded to 284 researchers.

The Lindbergh Grants program enjoys an excellent reputation among the scientific community and the public sector for supporting exceptional, high-quality projects and dedicated researchers. "Our grants program helps put ideas on the move thanks to our investment in people," said Clare Hallward, Chairman of the Lindbergh Foundation Grant Selection Committee. "Our grants enable dreams to be realized for people who see a better way of doing things. Their projects explore technological and ecological solutions that are both practical and visionary." Lindbergh grants support innovative ideas often at an early stage in their development, young researchers, and provide dollars to establish pilot projects.

Lindbergh grant applicants undergo a rigorous five-step review process focused on evaluations by two independent all volunteer review groups, including a 65-member Technical Review Panel. This international panel is comprised of knowledgeable and respected individuals drawn from the various fields in which Lindbergh grants are made. "Because of the standards employed by the Foundation's grants program, it has earned international credibility, which enables many Lindbergh grant recipients to secure additional funding to continue their important work, making it a highly sought-after award," said Hallward.

The Lindbergh Foundation is a public 501(c)(3) non-profit organization based in Minnesota that supports technological solutions to improve our environment for a sustainable future. Its programs are devoted to supporting, honoring, and educating individuals, through the annual honorary Lindbergh Award and the Lindbergh Grants program, which provides grants for research or education projects that will make important contributions to a technology/environment balance.

The annual deadline for all Lindbergh Grant applications is in mid-June for funding the following year. **The extended deadline for the Lindbergh-Lycoming Aviation Grant is Nov. 1, 2007, with funding in July 2008.** Anyone interested in applying for this grant will find information and a downloadable application on the Internet at: www.lindberghfoundation.org.

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EDITOR'S NOTE: For photos, please visit the "Media" section of our web site at <http://www.lindberghfoundation.org/2007OshkoshPhotos.htm>