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Contact: Patricia Woodside
Director, Public Relations
(703) 396-6304
pwoodside@aurora.aero

Aurora Flies Large Solar-Powered Aircraft

Manassas, VA May 14, 2009 - Aurora Flight Sciences announced today that it has successfully flown the SunLight Eagle, a solar-powered unmanned aircraft. The flights took place at the Unmanned Aircraft Systems Flight Test Center operated by the Physical Science Laboratory of New Mexico State University.

The SunLight Eagle has a wingspan of 114 feet – roughly that of a DC-9 jetliner – yet weighed only 165 pounds at liftoff.

“The flight successfully accomplished all of its initial test objectives” said Aurora project manager Robyn Allen. “The first was to collect data on the aircraft’s aerodynamic performance, to determine the impact of the solar cells. The second objective was to prove that it is possible to fly large, experimental solar aircraft inside the National Airspace System, as opposed to on a government-restricted range.”

"NMSU was very pleased with these pathfinder tests" according to Dennis Zaklan, the NMSU Flight Test Center test manager for the SunLight Eagle effort. "The success of the tests at the Las Cruces Airport was due to an outstanding Aurora product, a great team and cooperative planning effort between Aurora, NMSU, and Las Cruces Airport staff which led to the success and also led to an excellent experiential activity for the numerous students that we had involved."

The Sunlight Eagle is a derivative of an earlier human-powered aircraft, the MIT Light Eagle. That airplane served as the prototype for the Daedalus human-powered aircraft. The Light Eagle still holds four world records for human-powered flight and the Daedalus holds two.

“To convert the Light Eagle to the SunLight Eagle we made a number of changes” said project engineer Ellis Langford. “The first was to cover the upper surface with solar cells. Then we added a battery system so the plane can fly at night or under clouds. We replaced the pedals on the original plane with an electric motor and a gearbox. We installed electromechanical servos on all the control surfaces. And of course we removed the pilot.”

The next step in the SunLight Eagle project will be to prepare the aircraft to fly longer durations at higher altitudes. This will require upgrades to the control system and installation of an emergency parachute, to recover the aircraft safely if anything goes wrong. “We hope to be back at NMSU by late summer” said Allen.

About Aurora Flight Sciences

Aurora Flight Sciences designs and builds robotic aircraft and other advanced aerospace vehicles for scientific and military applications. Aurora is headquartered in Manassas, VA and operates production plants in Bridgeport, WV and Columbus, MS and a Research and Development Center in Cambridge, MA. To view recent press releases and more about Aurora please visit our web site at www.aurora.aero.

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