

Used cooking oil fuels 500-mile flight

http://www.obsentinel.com/features/article_7e81c853-f374-5f17-90a2-e6840cbb478a.html

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The crew of the single-engine Cessna 182 gives a triumphant 'thumbs up' after a 500-mile flight to the Wright Brothers National Memorial in Kill Devil Hills. Pictured, from left, are crew members Chris Howitt, Jochen Spengler, Ross McCurdy and his son Aedan.

Posted: Wednesday, March 6, 2013 1:00 am

BY NEEL KELLER | SENTINEL STAFF |



A specially equipped four-passenger, single-engine Cessna 182 with an SMA aviation diesel engine took off Saturday morning at 11:45 a.m. from North Central State Airport in Lincoln, RI and flew approximately 500 miles to the First Flight Airport at the Wright Brothers National Memorial in Kill Devil Hills.

The SMA diesel piston aircraft engine was manufactured by Societe de Motorisations Aeronautiques, a French manufacturer of diesel engines for light aircraft headquartered in Bourges.

The fuel used for the flight was "SkyNRG aviation biofuel" made from a 50-50 blend of used cooking oil and petroleum Jet A fuel.

"The goals of this flight," explained Ross McCurdy of the Aero Energy Association and Paramus Flying Club, "are to demonstrate the potential of aviation biofuels and all renewable energy, as well as the high efficiency and other benefits of aviation diesel engines."

McCurdy, who teaches Chemistry and Alternative Energy at Ponaganset High School, holds a private pilot's license and is currently working towards his commercial pilot's license. Other members of his international team of pilots include Chris Howitt, president of the Paramus Flying Club, who is originally from England, now lives in New York City and holds a commercial pilot's license.

The third member of the team is Jochen Spengler, a computer engineer who is originally from Germany and lives in New Jersey. He holds a commercial pilot's license and is a certified flight instructor. McCurdy's nine-year-old son Aedan — an "aviation enthusiast" — was also on board.

"We had favorable winds and great weather and actually arrived about a half-hour ahead of schedule, at 3:45," said McCurdy. "We had every confidence that the biofuel would work great,

and it did. In fact, pre-flight tests showed the engine actually ran better with the biofuel than with traditional fuel."

McCurdy added that the team had a special reason for choosing the Wright Brothers Memorial: "It is here on the sands of North Carolina's Outer Banks where Orville and Wilbur Wright made their historic first flight on Dec. 17, 1903. It goes without saying that Orville and Wilbur's historic first flight is an inspiration to anyone who has looked to the sky." He explained that the flight to Kill Devil Hills was intended to serve as part of the preparation for a planned coast to coast biofuel flight.

SkyNRG, based in the Netherlands, produces aviation biofuels that have been used successfully in commercial jets worldwide. The U.S. distributor for SkyNRG's biofuel is Epic Aviation. This was the first time the biofuel has been used in a piston engine airplane.

The nonprofit Aero Energy Association's mission is to "pro-mote aviation and renewable energy through education, demonstration and application." The Paramus Flying Club, one of the oldest flying clubs in the nation, serves the New York City and New Jersey area.

In recent years biofuels have been receiving increasing attention from the public and the science world as oil prices continue to climb and greater energy security is recognized as an urgent need. Among the predominant types of biofuels are bioethanol, which is an alcohol made by fermentation, most commonly from carbohydrates produced in sugar or starch crops such as corn or sugarcane.

Biodiesel, made from vegetable oils and animal fats, is capable of being used by itself as a fuel for vehicles, but is more often used as a diesel additive.

First Flight Society President Geneva Perry joined other members of the society in welcoming the plane as it landed, later providing a brief tour of the Outer Banks and treating the crew to dinner at the Black Pelican Restaurant. "The restaurant is a former lifesaving station where the Wright brothers sent their famous telegram with news of their successful flight," McCurdy said. "Dinner was great and the First Flight Society members exhibited the best in southern hospitality."

McCurdy added that his crew paid an exciting visit the next day to the memorial: "Sunday we went to the Wright Brothers Museum and enjoyed the excellent presentation by Park Ranger Darrell Collins, who let my boy Aedan put on a white glove and work the controls of the 1903 Wright Flyer replica. Aedan was thrilled!"

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