

Solar plane lands in Arizona, first leg of US trip (Update)

4 May 2013, by Bob Seavey



The Solar Impulse plane takes off on a multi-city trip across the United States from Moffett Field NASA Ames Research Center in Mountain View, Calif., Friday, May 3, 2013. Solar Impulse, considered the world's most advanced solar-powered plane, will stop for seven to 10 days at major airports in each city, so the pilots can display and discuss the aircraft with reporters, students, engineers and aviation fans. It plans to reach New York's Kennedy Airport in early July—without using a drop of fuel, its creators said. (AP Photo/Tony Avelar)

Alone in the single-seat cockpit and high above the American Southwest, pilot Bertrand Piccard could hear only his plane's gear box and the quiet whine of four electric motors. No noisy jet engines.

He's flying Solar Impulse, considered the world's most advanced sun-powered plane.

Piccard piloted the craft for 20 hours, first cruising along the California coast after taking off from Moffett Field in Mountain View near San Francisco just after dawn Friday. He passed over Edwards Air Force Base, where other aviation milestones have been made, and then touched down early Saturday morning at Phoenix Sky Harbor Airport.

He landed having used only three-quarters of the plane's battery power.

"It's a little bit like being in a dream," Piccard said as he stepped on the tarmac.

The plane's creators, Piccard and fellow pilot Andre Borschberg, said the trip is the first attempt by a solar airplane capable of flying day and night without fuel to fly across America.

But Piccard said Saturday afternoon that even more important than marking another aviation milestone is the hope that the journey will provide an exponential boost for interest in renewable energy and clean technologies.



The Solar Impulse pilot Bertrand Piccard, left, enters the cockpit before taking off to embark on a multi-city trip across the United States from Moffett Field NASA Ames Research Center in Mountain View, Calif., Friday, May 3, 2013. Solar Impulse, considered the world's most advanced solar-powered plane, will stop for seven to 10 days at major airports in each city, so the pilots can display and discuss the aircraft with reporters, students, engineers and aviation fans. It plans to reach New York's Kennedy Airport in early July—without using a drop of fuel, its creators said. (AP Photo/Tony Avelar)

"If an airplane can fly day or night with no fuel, just on the sun's power, of course it means that everybody in daily life can use this technology for his house, for heating and cooling systems, for lighting, for cars, for trucks. There's so much we can do now to have a cleaner future," Piccard said.

From Phoenix, the aircraft will travel to Dallas-Fort Worth airport in Texas, Lambert-St. Louis airport, Dulles airport in the Washington area and New York's John F. Kennedy airport. Each flight leg will take about 19 to 25 hours, with 10-day stops in each city.



Bertrand Piccard, pilot of the Solar Impulse plane, takes off on a multi-city trip across the United States from Moffett Field NASA Ames Research Center in Mountain View, Calif., Friday, May 3, 2013. Solar Impulse, considered the world's most advanced solar-powered plane, will stop for seven to 10 days at major airports in each city, so the pilots can display and discuss the aircraft with reporters, students, engineers and aviation fans. It plans to reach New York's Kennedy Airport in early July—without using a drop of fuel, its creators said. (AP Photo/Tony Avelar)

Bertrand Piccard, pilot of the Solar Impulse plane, speaks to reporters before taking off on a multi-city trip across the United States from Moffett Field NASA Ames Research Center in Mountain View, Calif., Friday, May 3, 2013. Solar Impulse, considered the world's most advanced solar-powered plane, will stop for seven to 10 days at major airports in each city, so the pilots can display and discuss the aircraft with reporters, students, engineers and aviation fans. It plans to reach New York's Kennedy Airport in early July—without using a drop of fuel, its creators said. (AP Photo/Tony Avelar)

The delicate, single-seat Solar Impulse flies around 40 mph (65 kph) and can't go through clouds. It weighs about as much as a car, making it vulnerable to bad weather.

Its average speed for the first leg of the trip was about 60 knots with a tail wind, Borschberg said. Ideally, the plane climbs up to about 27,000 feet (8,230 meters) or so during the day to collect solar and charge the batteries.

Borschberg is hoping to pilot the last leg, which could afford him the chance to fly past the Statue of Liberty.

The plane, which has previously impressed audiences in Europe, is powered by about 12,000 photovoltaic cells that cover massive wings and

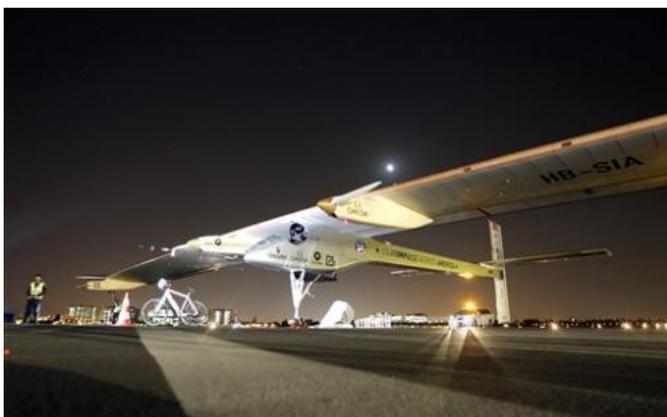


The Solar Impulse plane sits on the tarmac early in the morning before takes off on a multi-city trip across the United States from Moffett Field NASA Ames Research Center in Mountain View, Calif., Friday, May 3, 2013. Solar Impulse, considered the world's most advanced solar-powered plane, will stop for seven to 10 days at major airports in each city, so the pilots can display and discuss the aircraft with reporters, students, engineers and aviation fans. It plans to reach New York's Kennedy Airport in early July—without using a drop of fuel, its creators said. (AP Photo/Tony Avelar)

Pilots Bertrand Piccard, right, and André Borschberg, left shake hands before the Solar Impulse plane takes off to embark on a multi-city trip across the United States from Moffett Field NASA Ames Research Center in Mountain View, Calif., Friday, May 3, 2013. Solar Impulse, considered the world's most advanced solar-powered plane, will stop for seven to 10 days at major airports in each city, so the pilots can display and discuss the aircraft with reporters, students, engineers and aviation fans. It plans to reach New York's Kennedy Airport in early July—without using a drop of fuel, its creators said. (AP Photo/Tony Avelar)

Borschberg and Piccard were ready for a series of tours over the next few days to show off the technology to Phoenix school children, university researchers and others.

"There are a lot of people who want to see this airplane," Piccard said.



So how hard is it to fly a solar plane?

Despite the aviation advancements made over the last century, Piccard said he and Borschberg have a lot in common with the early pioneers.

"One hundred years ago, the planes had to fly in good weather and there was only one person on board," Piccard said. "Now we have completely new technology, we fly with no fuel at all. But, of course, we need to fly in good weather and we carry only one pilot on board.

"We're starting a new cycle. It's really the beginning of something new."

© 2013 The Associated Press. All rights reserved.

APA citation: Solar plane lands in Arizona, first leg of US trip (Update) (2013, May 4) retrieved 30 September 2022 from <https://phys.org/news/2013-05-solar-plane-ariz-leg-major.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.