

Swiss team unveil pioneering solar plane

June 26 2009



Swiss scientist-adventurer and pilot Bertrand Piccard gestures as he unveils the 'Solar Impulse' airplane during a ceremony on June 26, 2009 in Duebendorf near Zurich. Piccard's solar-powered plane and the Solar Impulse team are aiming to demonstrate that reliance on renewable energy is not a pipedream.

Round-the-world ballooning pioneer Bertrand Piccard unveiled his solar-powered aircraft in Switzerland on Friday, ready for another trend-setting circumnavigation of the globe powered solely by the sun.

The wasp-shaped prototype of Solar Impulse, with the wingspan of a jumbo jet, was rolled out before some 800 guests at an airfield near Zurich after six years of development.

Ten years after Piccard and Briton Brian Jones achieved the first non-stop flight around the globe in the Orbiter balloon, the Solar Impulse team are aiming to demonstrate that reliance on renewable energy is not

a pipedream.

"If an aircraft is able to fly day and night without fuel, propelled solely by solar energy, let no one come and claim that it is impossible to do the same thing for motor vehicles, heating and air conditioning systems and computers," Piccard said.

Although [computer simulations](#) have been tried out, the prototype HB-SIA will make its maiden [test flight](#) by the end of this year.

Its mission is to test the feasibility of a complete flight sequence through two days and one night, propelled only by solar energy, and pave the way for a second aircraft's bid to fly around the world in five stages in 2012.

The Swiss adventurer -- who is again joined by Jones -- said the idea emerged after that 19 day hot air balloon trip, when Orbiter was partly kept aloft by fuel canisters even if the wind ensured its progress eastwards.

"That historic success could have turned sour because of the lack of fuel," Piccard said at the Dubendorf airfield.

"That's why we took the decision to attempt a trip around the world without relying on fossil fuels," he explained.

The seemingly flimsy carbon fibre concentrate of new technology has a 63.4 metre wingspan but weighs little more than a medium sized car.

Some 12,000 [solar cells](#) spread over its slender wings are meant to keep it aloft, fuelling four tiny ten horsepower electric motors and 400 kilogrammes of batteries that are, unusually, meant to keep it going overnight.

Wedged in the narrow cockpit, the lone pilot will also be helped to fly Solar Impulse by some novel control technology.

"Those are the wings of hope. They are immense, as is the challenge we have to meet in climate protection," said Swiss Transport, Energy and Environment Minister Moritz Leunberger.

(c) 2009 AFP

Citation: Swiss team unveil pioneering solar plane (2009, June 26) retrieved 25 April 2024 from <https://phys.org/news/2009-06-swiss-team-unveil-solar-plane.html>

<p>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.</p>
--