

Swiss pilots aim to circle world in a solar-powered plane

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Swiss scientist-adventurer and pilot Bertrand Piccard is pictured unveiling the 'Solar Impulse' airplane during a ceremony in June last year, in Duebendorf, near Zurich. 51-year-old Piccard plans to fly his 'Solar Impulse' around the world over 20 to 25 days, traveling at an average of 70 kilometres (43 miles) an hour.

Bertrand Piccard is no conventional environmental activist -- he hopes to raise awareness about the potential of renewable energy by flying a solar-powered aircraft around the world.

"What we want to do is to fly day and night to show that, with renewable energies, you can have unlimited duration of [flight](#), no restriction," Piccard told AFP at the World [Future Energy](#) Summit in Abu Dhabi, where he had a booth to promote his venture.

The 51-year-old Swiss psychiatrist plans to fly his one-of-kind "[Solar](#)

[Impulse](#)" around the world over 20 to 25 days, traveling at an average of 70 kilometres (43 miles) an hour.

He will split the flying time with Andre Borschberg, a former Swiss fighter pilot.

"We believe that if an airplane can fly around the world with no fuel, nobody can say after that it's impossible to do it for cars, for heating systems, for air-conditioning, for computers and so on," he said.

The prototype of Solar Impulse made its first test flight near Zurich in December. The plane is made of [carbon fibre](#), with solar panels along the top of its roughly 64-metre (209-foot) wingspan.

The aim is for the solar panels to absorb energy to power the aircraft during the day, and at the same time store energy in lithium polymer batteries to run the engines at night.

After aircraft manufacturers said Piccard's specifications would be impossible to meet, he turned to a racing yacht manufacturer to build the airframe.

"They did not know it's impossible, so they did it," he said.

The plane is powered by four electric engines, each making a maximum of 10 horsepower. Piccard said that, despite having a wingspan close to that of an Airbus A340, Solar Impulse weighs only 1,600 kilogrammes (3,500 pounds).

Asked what led him to try this unorthodox method of promoting [renewable energy](#), Piccard pointed to his family history.

"I come from a family of explorers, who always had a lot of concern for

the environment and for natural resources," he said.

"My grandfather was the first man to explore the stratosphere, to climb above the atmosphere (in a balloon) ... and my father made in 1960 the deepest dive ever in a submarine," he said.

Piccard has already demonstrated a penchant for adventure. In 1999, he and Briton Brian Jones became the first men to complete a non-stop flight around the globe in a hot-air balloon.

That flight "gave me the fame to ... do useful things," Piccard said, including finding sponsors, money and support for his current project.

The project, which will cost a total of 70 million euros (100 million dollars), has been underway for around seven years and still has a way to go. The attempted flight around the world won't take place until 2012 or 2013.

This year, the aircraft will undergo high-altitude testing, and will also be tested in daytime and nighttime flight. If that goes well, the prototype will either be modified or a new one built for a trans-Atlantic flight.

"We have to reproduce Lindbergh's flight with no fuel," Piccard said, referring to Charles Lindbergh, the first man to fly across the Atlantic Ocean.

The one-man aircraft will land at different points during the flight around the world so the pilots can switch off, Piccard said.

In addition to the switch, the landings will be an opportunity "to present the technology of this airplane, to encourage people to use (the technology) also, for their daily life," he said.

For Piccard, the Solar Impulse project is a new, positive tack in promoting renewable energy and conservation.

"I was in Copenhagen (for the recent climate change conference), and I see people are fed up with the alarmists, the catastrophists," he said.

"People need solutions, not problems. So we have to demonstrate the solutions. We have to show that it's possible to do great things."

And aviation, Piccard said, is "a good vector to push messages."

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