

Solar plane poised for last flight of US journey

July 5 2013, by Kerry Sheridan



The Swiss-made solar-powered plane, Solar Impulse takes off from Rabat airport on July 6, 2012. The wispy, fuel-free aircraft is poised to take off Saturday on its final leg of a cross-country US tour aimed at showcasing the promise of clean energy.

For Swiss pilot Bertrand Piccard, flying an experimental solar aircraft across America has been exhilarating, but perilous at times.

His wispy, fuel-free aircraft, the Solar Impulse, is poised to take off Saturday on its final leg of a cross-country US tour aimed at showcasing

the promise of clean energy.

The single-seat plane will have Piccard's business partner Andre Borschberg at the controls when it leaves the US capital, Washington, around 4:45 am (0845 GMT) Saturday, with arrival in New York City's John F. Kennedy International Airport expected Sunday, July 7, around 2 am (0600 GMT).

Piccard told AFP one of his favorite memories was piloting the aircraft as it glided over San Francisco's Golden Gate Bridge at the start of the multi-stop tour in April.

But another night, when it was Borschberg's turn to fly, he encountered [high winds](#) that threatened to send the fragile plane—with a [wingspan](#) of a [jumbo jet](#) but the weight of a small car—way off course.

"He had to position the plane parallel to the runway, heading into the wind, and drifted sideways to the runway," recalled Piccard, who said he stays awake for the 20-hour and longer flights when his business partner is in the air.

"He could not do the normal pattern or he would have been kicked aside 10 or 20 miles," he said. "The speed of the wind was equal to the speed of the airplane. That was quite an exciting moment for everyone," he said with a laugh.



Pilot Bertrand Piccard answers questions at Moffett Field on May 3, 2013 in Mountain View, California. For Piccard, flying an experimental solar aircraft across America has been exhilarating, but perilous at times.

"It was a little bit stressful."

The Solar Impulse HB-SIA is powered by 12,000 [solar cells](#) and flies under cover of darkness by reaching [high altitudes](#) during the day and gliding downward over [long distances](#) by night. It uses no fossil fuels.

Drawbacks include the tiny cockpit, vulnerability to turbulence and the lack of a toilet, so the pilots must relieve themselves by using an empty

plastic water bottle on solo flights that routinely last 20-24 hours.

"I never find it too long," said Piccard. "When you are in the most revolutionary airplane, and you know that so many people are following your flight, so many people support your message about clean energy, it is just awesome to be in that plane."

Piccard said the US trip was "more difficult than expected because of the weather—there were lots of tornadoes, thunderstorms, so several of our flights were delayed or postponed but nevertheless it was a big success."

Crowds of people came to see the plane at each of its four stopoffs so far, and Piccard said he was impressed by the positive reactions.

"We can really observe that America is a country of innovation and pioneering," he told AFP. "People were not only saying congratulations, they were saying thank you for what you do. It was very touching."

The plane's American trip is just the latest in a series of groundbreaking flights across different parts of the world, including Europe and Africa.

The HB-SIA is soon to be phased out as the Swiss team prepares to make test flights of the second-generation aircraft, the HB-SIB next year.

Piccard said the next plane will be 10 percent bigger, with more power, reliability, an auto-pilot function and a toilet so that pilots can make the four to six day long trips that will be part of its journey across the world in 2015.

"Our goal is not just to fly across America and make a historic milestone," said Piccard. "It needs to be useful for society, to show people worldwide how much more efficient the world can be with clean

technology."

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