

Solar plane sets distance record on US tour

May 23 2013



The Solar Impulse plane takes off from Moffett Field in Mountain View, California, on May 3, 2013. The first manned aircraft that can fly day and night powered only by solar energy has set a new distance record after completing the second leg of a cross-country US tour.

The first manned aircraft that can fly day and night powered only by solar energy set a new distance record Thursday when it landed after the second leg of a cross-country US tour.

The <u>Solar Impulse</u> project, founded and led by two Swiss pilots, aims to showcase what can be accomplished without <u>fossil fuels</u>, and has set its



"ultimate goal" as an around-the-world flight in 2015.

Solar Impulse landed in Dallas-Fort Worth, Texas at 1:08 am (0608 GMT) after an 18 hour and 21 minute flight from Phoenix, Arizona, a distance of 1,541 kilometers (950 miles), organizers said in a statement.

"This leg was particularly challenging because of fairly strong winds at the landing. It also was the longest flight—in terms of distance—ever flown by a solar airplane," the plane's pilot Andre Borschberg said.

"You have to understand that the pilot needs to stay awake for more than 20 hours without any autopilot," added Borschberg, who holds the record for the longest solar-powered flight, at 26 hours.

The previous distance record was attained by Solar Impulse one year ago on a 1,116 kilometer (693 mile) flight from Switzerland to Spain.

The first leg of Solar Impulse's US tour took place on May 3, when Swiss aviator Bertrand Piccard flew the aircraft from the San Francisco, California area to Phoenix.

On the first leg the plane—which has a slim body and four electric engines attached to enormous wings—flew quietly at an <u>average speed</u> of about 30 miles (49 kilometers) per hour.





The Solar Impulse's HB-SIA prototype flies over Phoenix Arizona, on May 22, 2013. The first manned aircraft that can fly day and night powered only by solar energy has set a new distance record after completing the second leg of a cross-country US tour.

Energy provided by 12,000 solar cells powered the plane's propellers.

The plane can fly at night by reaching a high elevation of 27,000 feet (8,230 meters) and then gently gliding downward, using almost no power until the sun comes up to begin recharging the <u>solar cells</u>.

The US itinerary allows for up to 10 days at each stop in order to



showcase the plane's technology to the public. Another stop is planned in the US capital Washington before the trip concludes in New York in early July.

The stopovers will allow Piccard and Borschberg to share duties and rest between flights.

A dashboard showing the live speed, direction, battery status, solar generator and engine power, along with cockpit cameras of both Piccard and his view from the plane, are online at live.solarimpulse.com.

© 2013 AFP

Citation: Solar plane sets distance record on US tour (2013, May 23) retrieved 23 May 2024 from <u>https://phys.org/news/2013-05-solar-plane-distance.html</u>

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.