

Solar Impulse plane lands in Phoenix



Watch the solar plane touch down in the dark in Phoenix, Arizona

A plane powered only by the Sun has completed the first leg of a journey that aims to cross the US.

Solar Impulse, as the vehicle is known, took off at dawn from San Francisco, California, on Friday and landed in Phoenix, Arizona, some 18 hours later.

The craft will stop over in Dallas, St Louis, Washington DC and New York in the coming weeks.

The plane has the same wingspan as an Airbus A340 but it weighs just 1.6 tonnes.

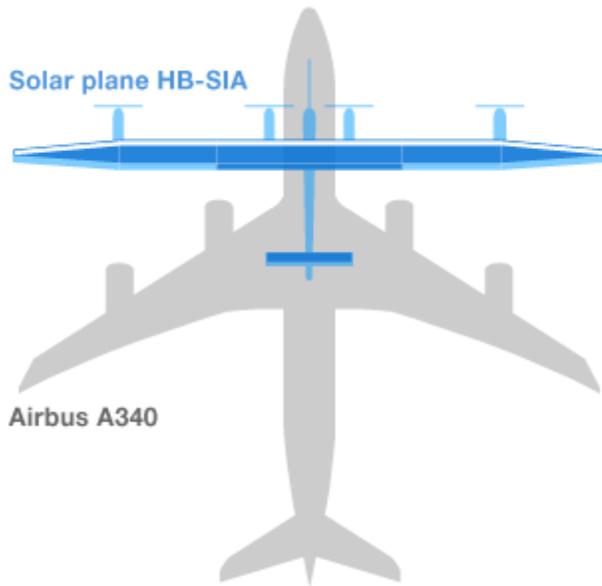
It has already made a day-and-night flight lasting more than 26 hours, and the team aims to eventually circumnavigate the globe in 2015.

The plane took off from Moffett Field on the edge of San Francisco Bay at 06:12 local time (13:12 GMT) on Friday, and landed at Phoenix's Sky Harbor Airport at 00:30 local time (07:30 GMT) on Saturday.

This meant Solar Impulse spent several hours flying in darkness, relying solely on the energy stored in an array of lithium-ion batteries to drive its propellers.

In daylight hours, these are charged by nearly 12,000 solar cells that cover the craft's wings and stabiliser.

The Solar Impulse HB-SIA



SOURCE: Solarimpulse

- Wingspan - 63m (208ft)
- Weight - 1,600kg (3,500lb)
- Covered with 11,628 solar cells
- Carries 400kg (900lb) of lithium-ion batteries
- Maximum cruising altitude of 8,500m (28,000ft)

The HB-SIA craft was piloted by Bertrand Piccard, a co-founder of the effort, who is perhaps best known for being the first person to circumnavigate the globe in a hot-air balloon, in 1999.

The trans-America bid is the first attempt of its kind with a zero-fuel aircraft.

Together with co-founder and entrepreneur Andre Borschberg, the pair of Swiss pilots have racked up a number of world records and milestones in recent years.

The [first night flight](#) of a solar-powered craft in 2010 was followed by a first international flight in 2011, and [first inter-continental flight](#) in 2012.

The two will share the job of flying the plane between each of the stops of the tour.

"We've been preparing for this flight since last summer, so we are all very excited," Mr Borschberg told BBC News.

The current aircraft HB-SIA is effectively the prototype for the craft that will eventually be used for transoceanic flights and the round-the-world trip. The HB-SIB should be completed by the end of 2013.

"You should see this like being in 1915 when the pioneers were trying to do these first cross-country flights - still unable to cross the ocean, but an important step for the development of aviation," Mr Borschberg said.

The launch on Friday served as the start of the pair's Clean Generation Initiative, an effort to encourage policy-makers and businesses to develop and adopt sustainable energy technologies.

"We want to show that with clean technologies, a passionate team and a far-reaching pioneering vision, one can achieve the impossible," Dr Piccard said at the announcement of the mission in March.



Solar Impulse co-founder, pilot and CEO Andre Borschberg (L) greets pilot Bertrand Piccard at Sky Harbor International Airport in Phoenix