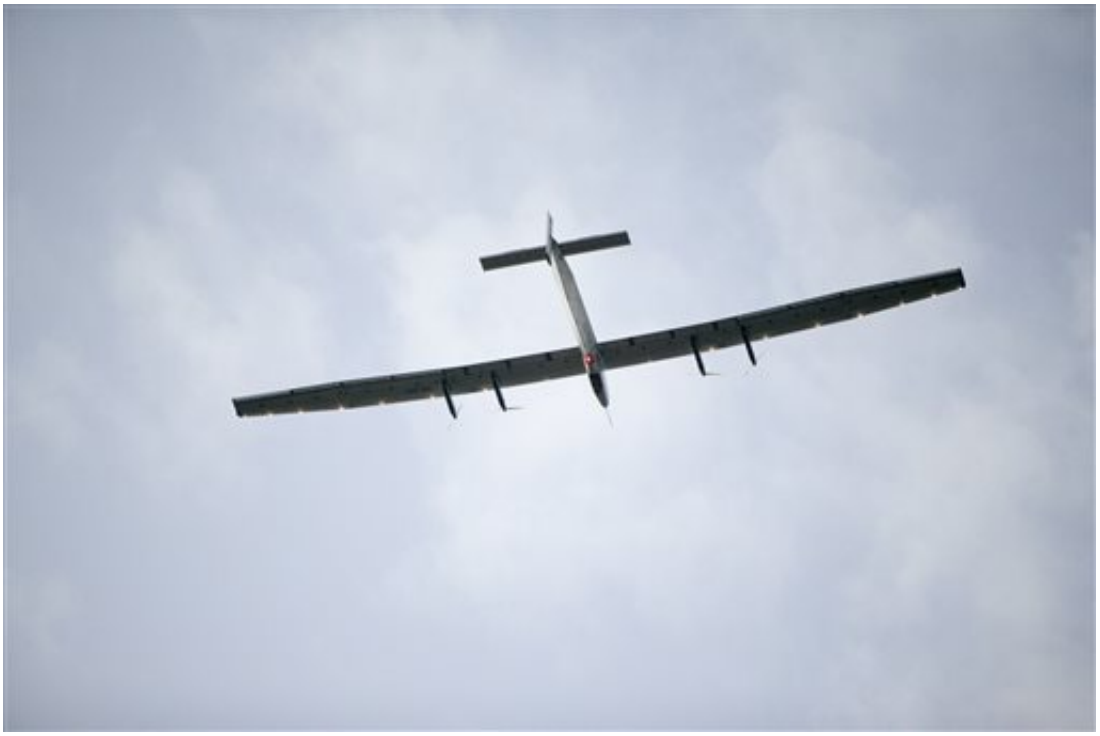
Solar plane lands in Hawaii after record-breaking flight (Update 2)

July 3 2015, byAudrey Mcavoy



The Solar Impulse 2, a solar-powered airplane, circles the Kalaeloa Airport, Friday, July 3, 2015, in Kapolei, HI. The plane, piloted by Andre Borschberg, is attempting to fly around the world without fuel. (AP Photo/Marco Garcia)

A plane powered by the sun's rays landed in Hawaii Friday after a record-breaking five-day journey across the Pacific Ocean from Japan.

Pilot Andre Borschberg and his single-seat aircraft landed at Kalaeloa, a

small airport outside Honolulu. His nearly 118-hour voyage from Nagoya broke the record for the world's longest nonstop solo flight, his team said. The late U.S. adventurer Steve Fossett set the previous record of 76 hours when he flew a specially-designed jet around the globe in 2006.

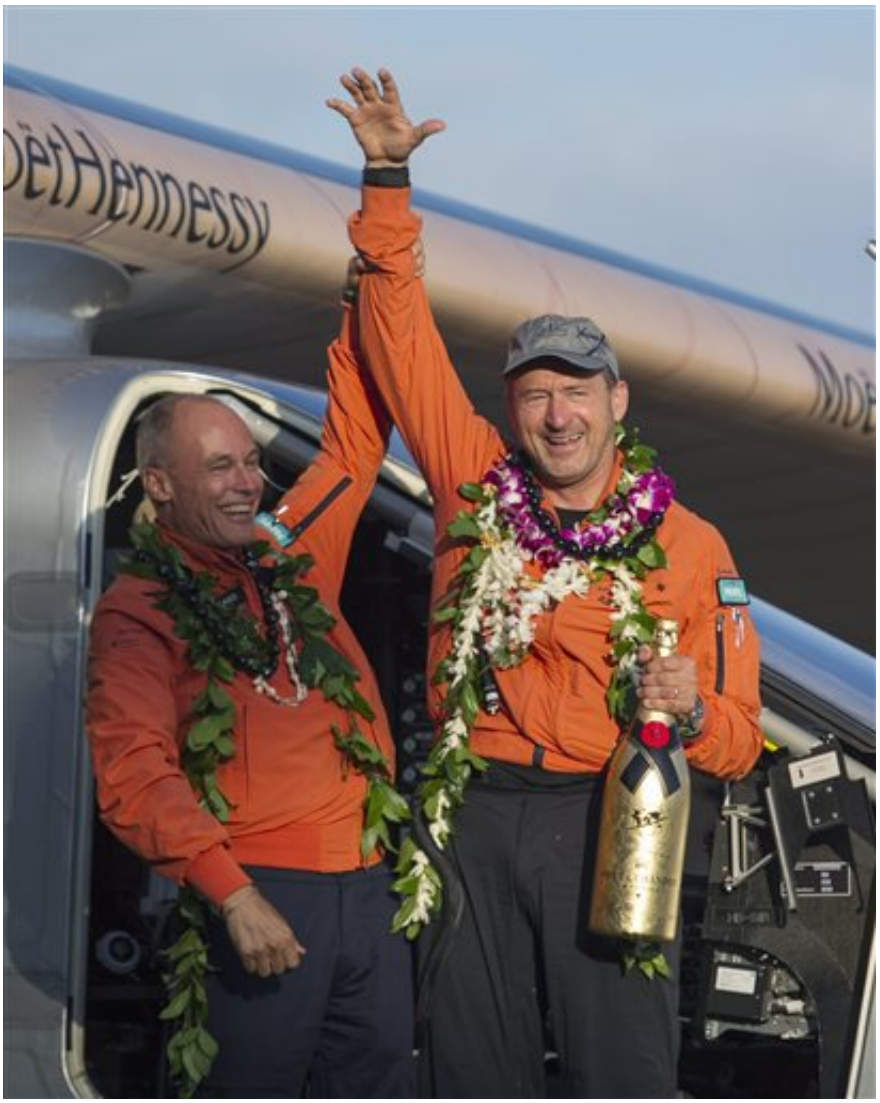
But Borschberg flew the Solar Impulse 2 without fuel. Instead, its wings were equipped with 17,000 solar cells that powered propellers and charged batteries. The plane ran on stored energy at night.

The trans-Pacific leg was the riskiest of the plane's global travels as there was nowhere for it to land in an emergency.

The engineless aircraft landed in silence, the only sound the hum of a nearby helicopter. About 200 people, including the media, witnessed the touch-down shortly before 6 a.m.

Later in the morning, Borschberg called the flight an extraordinary experience, saying it marked historical firsts for aviation and for renewable energy.

"Nobody now can say that renewable energies cannot do the impossible," he said. The most challenging part of the journey was when he and fellow Swiss co-pilot Bertrand Piccard had to decide when exactly to leave Japan.



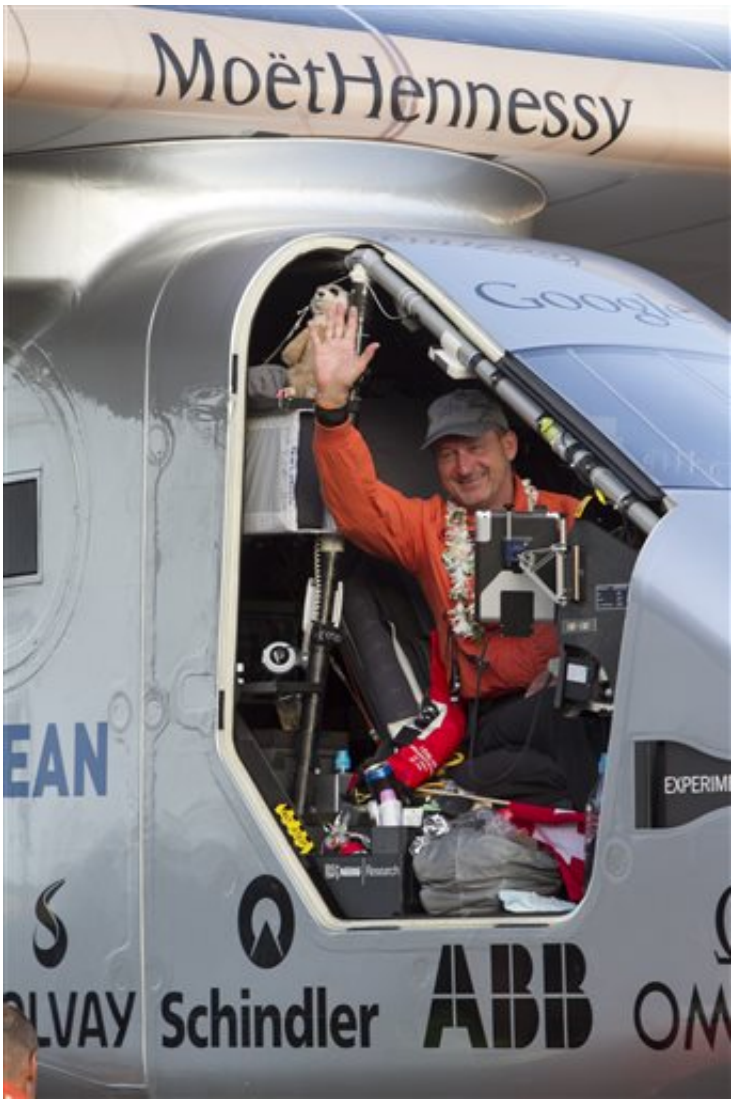
Bertrand Piccard, left, holds up the arm of pilot Andre Borschberg after Borschberg landed the Solar Impulse 2 at the Kalaeloa Airport in Kapolei, Hawaii, Friday, July 3, 2015. A plane powered by the sun's rays landed in Hawaii after a record-breaking five-day journey across the Pacific Ocean from Japan. (AP Photo/Marco Garcia).

"You don't know if it's feasible. You don't know if it's possible. You don't know if you are going to lose the airplane," he said.

Borschberg, who did yoga up to 45 minutes daily to counter the effects

of immobility and stay fit, remained in the plane for about an hour after landing before finally emerging. Before exiting, he was approached by customs personnel who asked to see his passport. Some in the waiting crowd waved Swiss flags, and dignitaries shook his hand. A troupe of young hula performers sang a welcoming song in Hawaiian.

The plane's ideal flight speed is about 28 mph though that can double during the day when sun's rays are strongest. The carbon-fiber aircraft weighs over 5,000 pounds or about as much as a minivan or mid-sized truck.



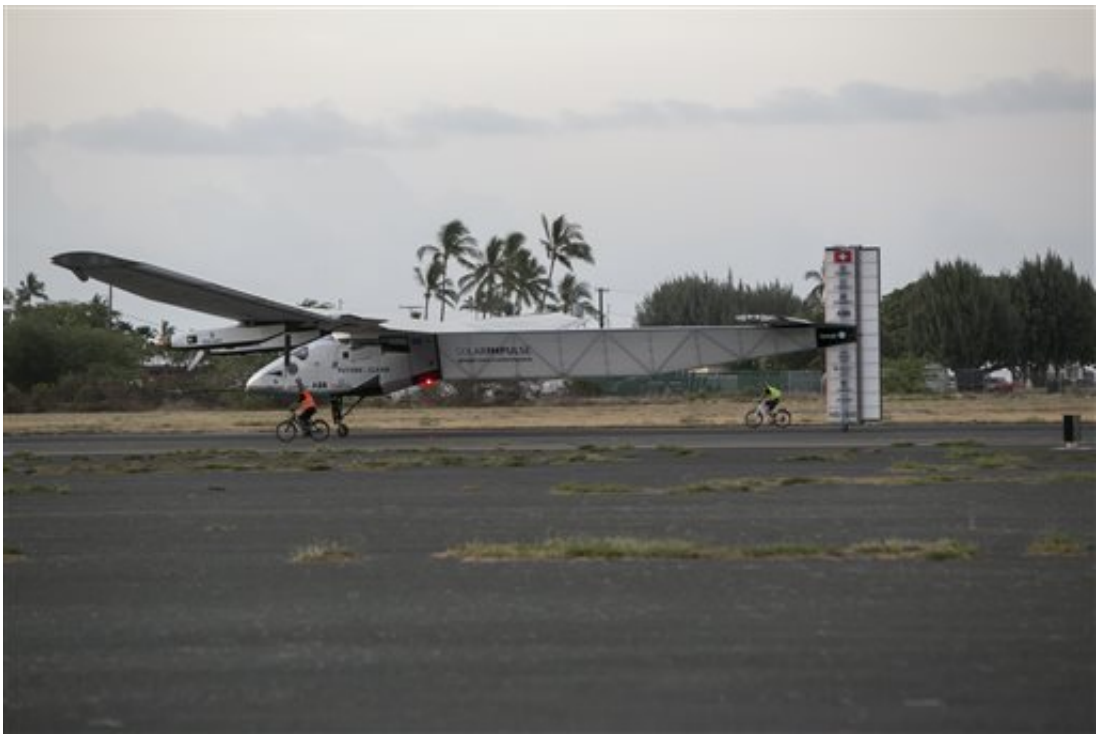
Pilot Andre Borschberg waves from the cockpit of the Solar Impulse 2, a sun-powered airplane, after landing at the Kalaeloa Airport, Friday, July 3, 2015 in Kapolei, Hawaii. Borschberg spent five days flying the plane from Japan. The Solar Impulse 2 is attempting to fly around the world without fuel. (AP Photo/Marco Garcia)

Borschberg and Piccard have been taking turns flying the plane on an around-the-world trip since taking off from Abu Dhabi in March. After Hawaii, the plane will head to Phoenix and then New York. Piccard will make the flight to Phoenix, organizers said in a press release.

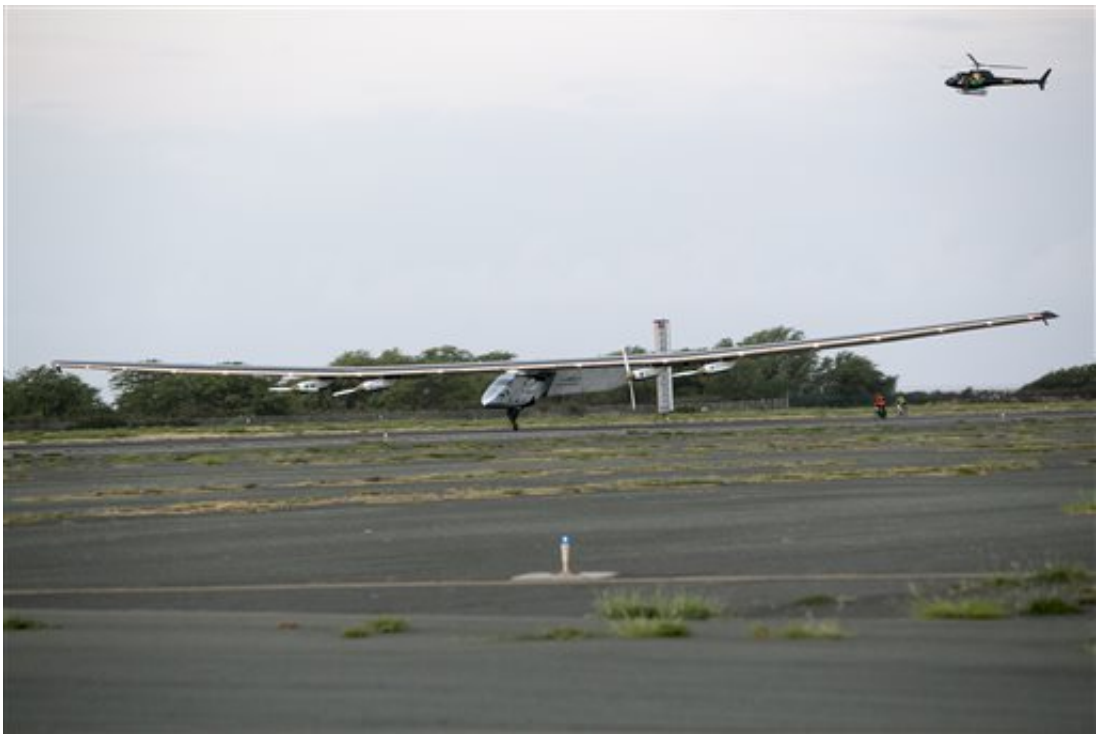
The project, which began in 2002 and is estimated to cost more than $100 million, is meant to highlight the importance of renewable energy and the spirit of innovation. Solar-powered air travel is not yet commercially practical, however, given the slow travel time, weather and weight constraints of the aircraft.

The plane is visiting Hawaii just as the state has embarked on its own ambitious clean energy project. Gov. David Ige last month signed legislation directing Hawaii's utilities to generate 100 percent of their electricity from renewable energy resources by 2045. The utilities currently get 21 percent of their power from renewable sources.

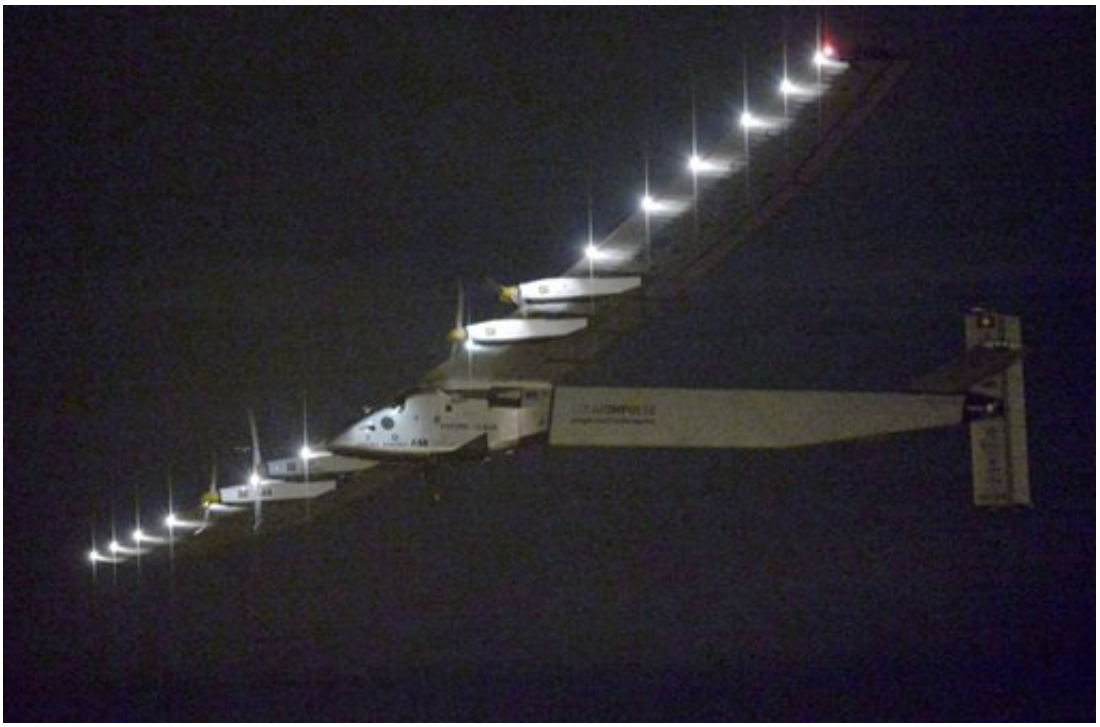
In this image released by Solar Impulse 2, the solar powered plane, piloted by Andre Borschberg approaches Honolulu Airport in Hawaii early Friday, July 3, 2015, after a record-breaking five-day journey across the Pacific Ocean from Japan. (Jean Revillard/Solar Impulse 2 via AP)



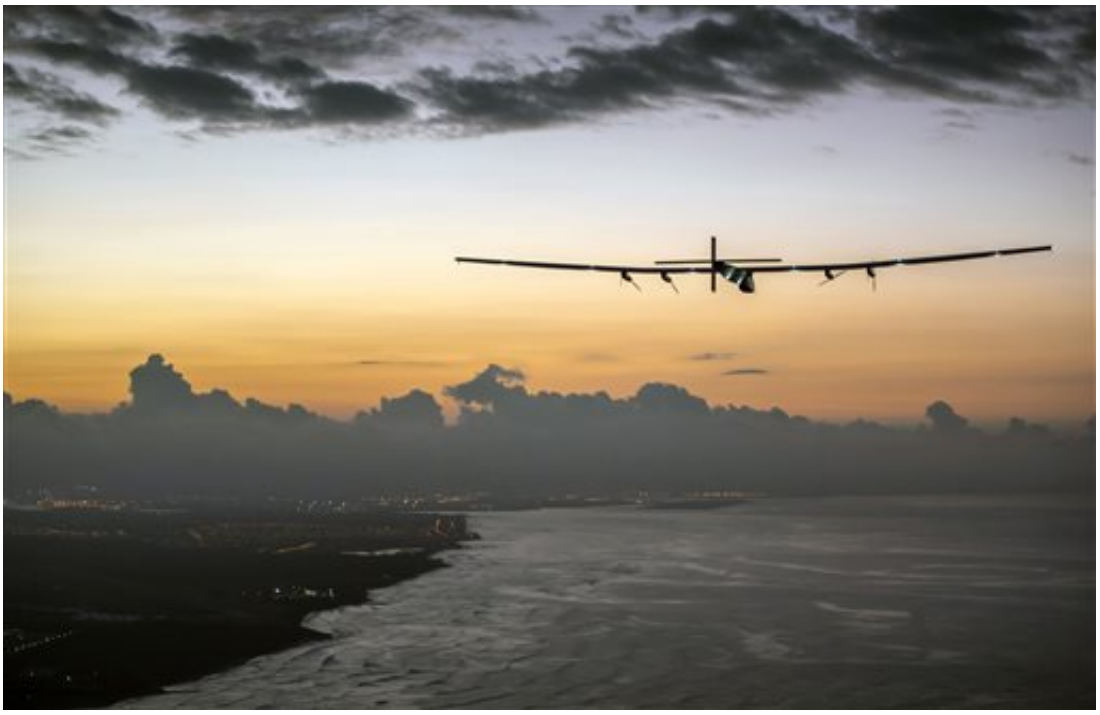
The Solar Impulse 2, a solar-powered airplane, lands at the Kalaeloa Airport, Friday, July 3, 2015 in Kapolei, HI. The plane, piloted by Andre Borschberg, is attempting to fly around the world without fuel. (AP Photo/Marco Garcia)



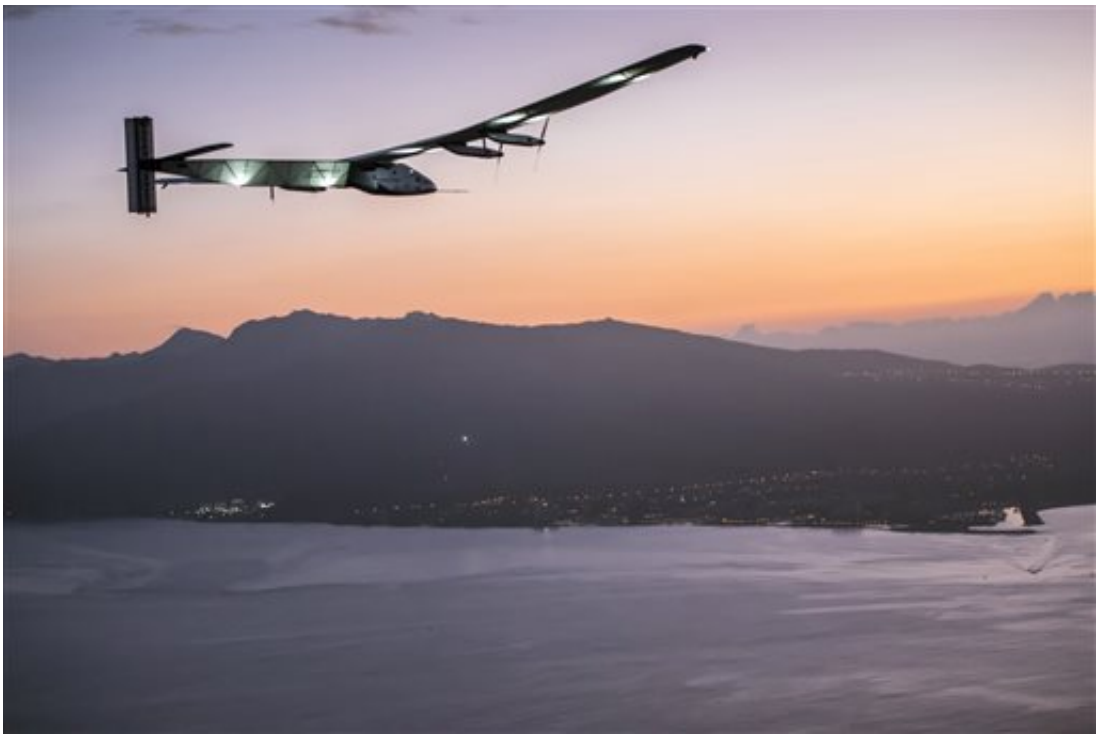
The Solar Impulse 2, a solar-powered airplane, lands at the Kalaeloa Airport, Friday, July 3, 2015 in Kapolei, HI. The plane, piloted by Andre Borschberg, is attempting to fly around the world without fuel. (AP Photo/Marco Garcia)



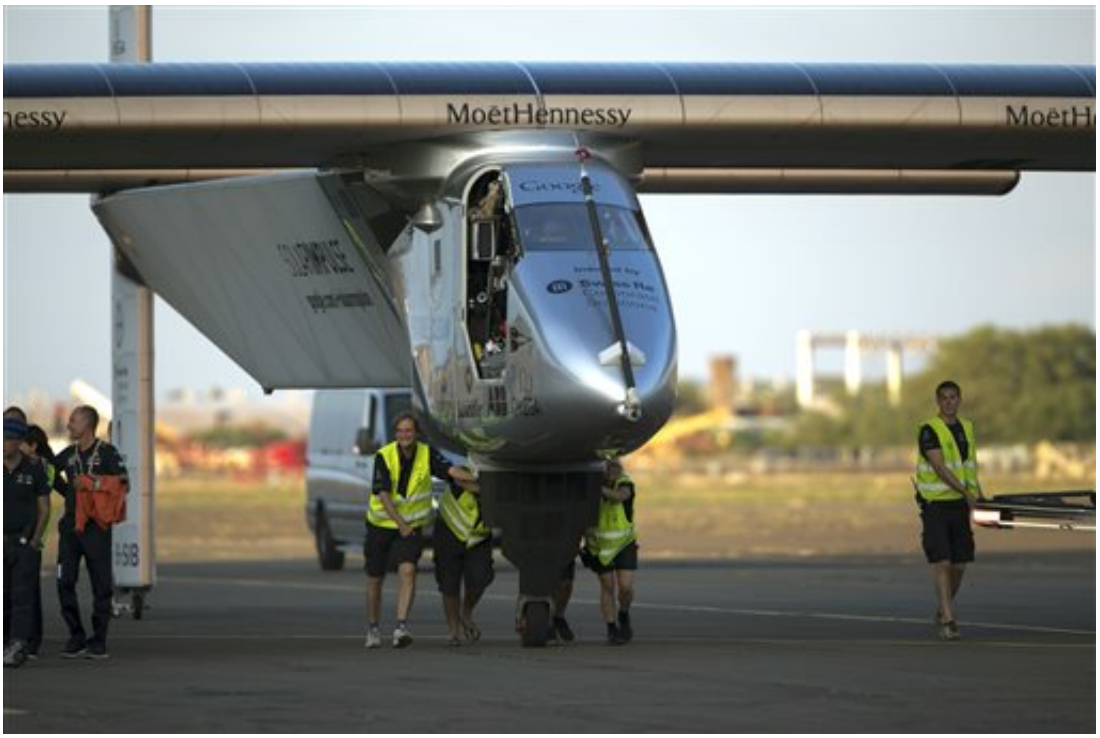
In this Monday, June 29, 2015, file photo, the Solar Impulse 2 flies over Nagoya Airport after taking off in Toyoyama, near Nagoya, central Japan. The solar-powered plane, journeying around the world without fuel, depending on the weather is expected to land in Hawaii early Friday morning, July 3, 2105.(Kyodo News via AP, File)



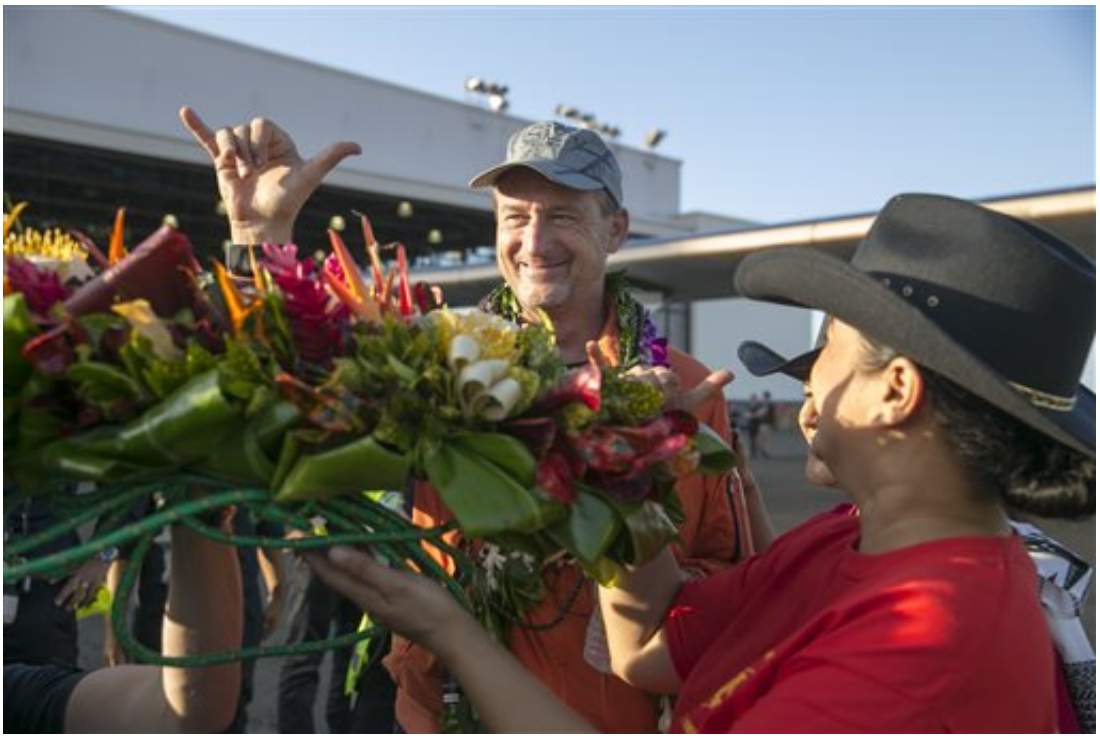
In this photo provided by Jean Revillard, Solar Impulse 2, a plane powered by the sun's rays and piloted by Andre Borschberg, approaches Kalaeloa Airport near Honolulu, Friday, July 3, 2015. His 120-hour voyage from Nagoya, Japan broke the record for the world's longest nonstop solo flight, his team said. (Jean Revillard/SI2 via AP)



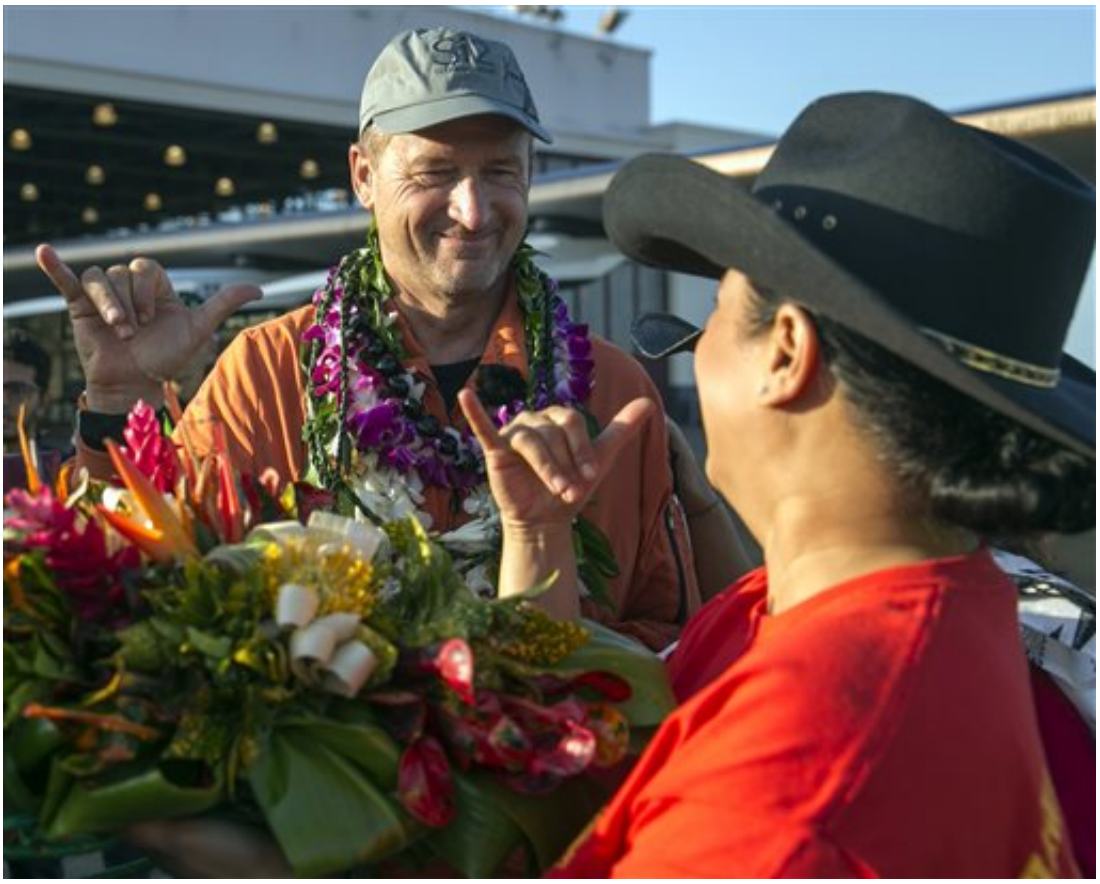
In this photo provided by Jean Revillard, Solar Impulse 2, a plane powered by the sun's rays and piloted by Andre Borschberg, approaches Kalaeloa Airport near Honolulu, Friday, July 3, 2015. His 120-hour voyage from Nagoya, Japan broke the record for the world's longest nonstop solo flight, his team said. (Jean Revillard/SI2 via AP)



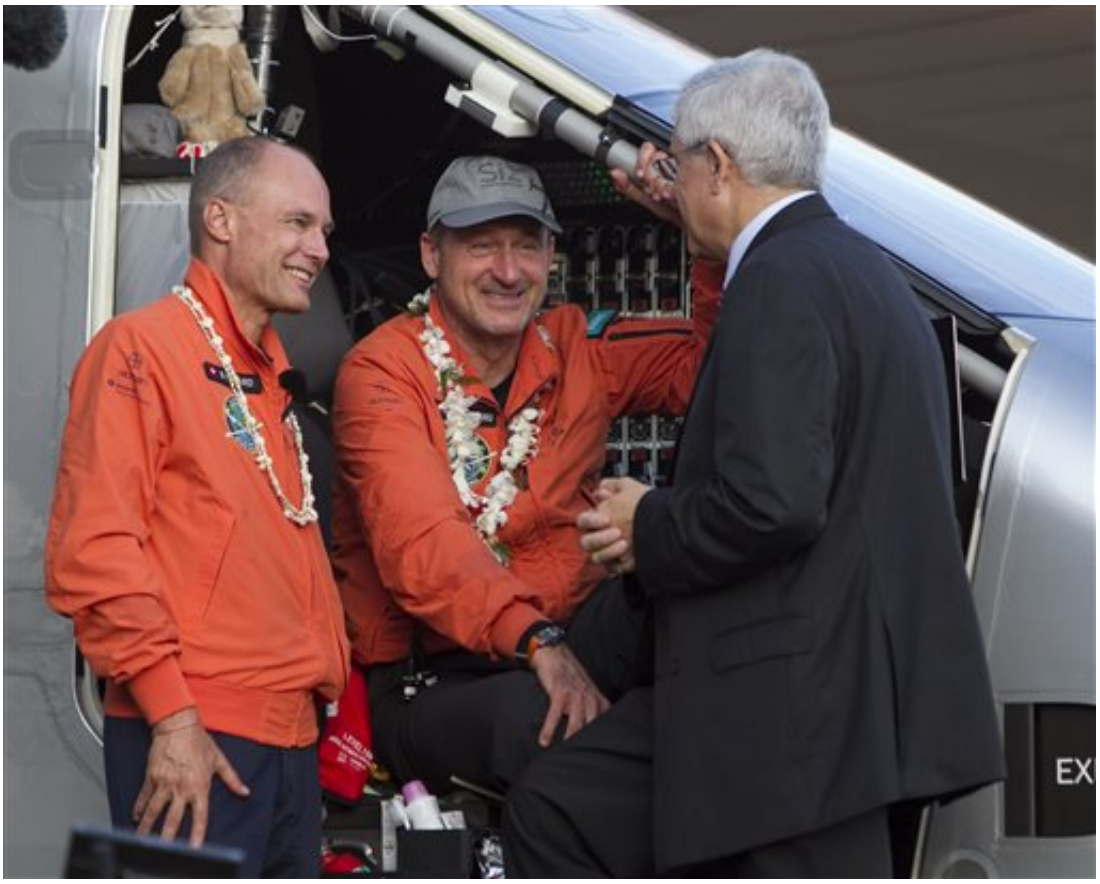
Ground crew push the Solar Impulse 2, a sun-powered airplane, towards the hangar after the plane landed at the Kalaeloa Airport, Friday, July 3, 2015, in Kapolei, Hawaii. Pilot Andre Borschberg spent five days flying the plane to Hawaii from Japan. The Solar Impulse 2 is attempting to fly around the world without fuel. (AP Photo/Marco Garcia)



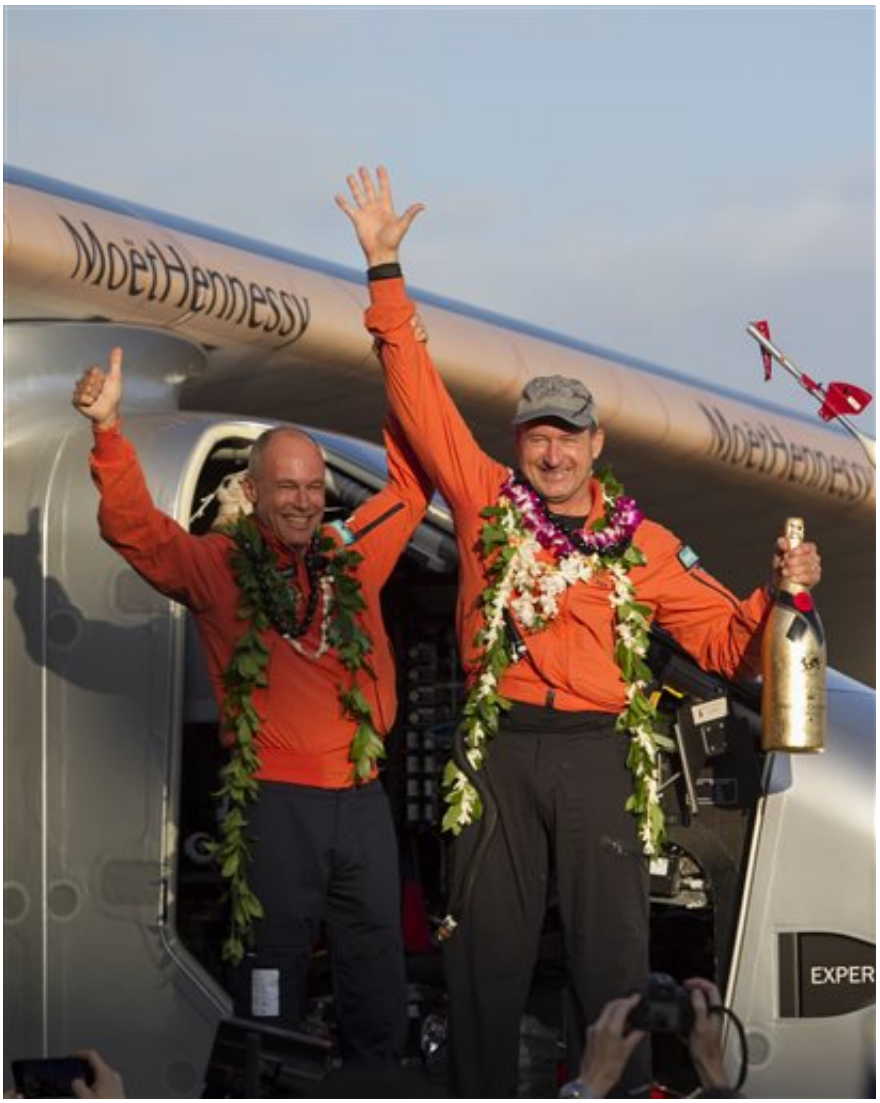
Pilot Andre Borschberg flashes a Hawaiian shaka at the crowd after he landed the Solar Impulse 2 at the Kalaeloa Airport, Friday, July 3, 2015, near Honolulu, in Kapolei, Hawaii. Borschberg spent five days flying the plane from Japan. The Solar Impulse 2 is attempting to fly around the world without fuel. (AP Photo/Marco Garcia)



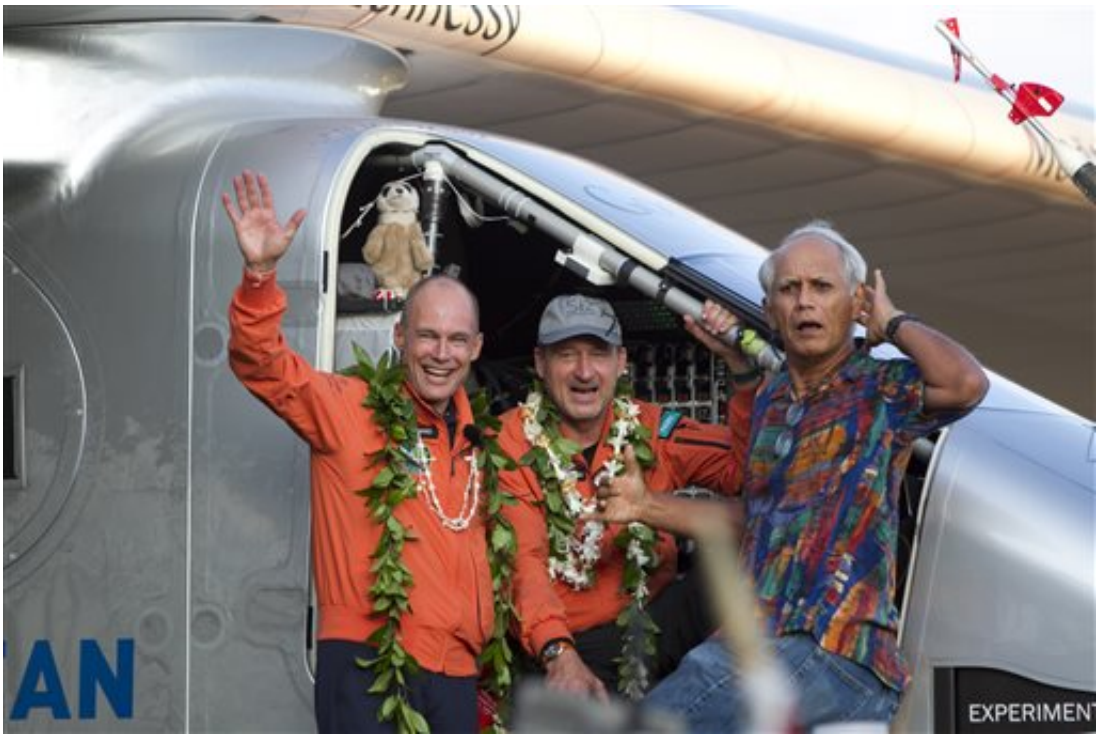
Pilot Andre Borschberg flashes a Hawaiian shaka sign to a greeter after landing the Solar Impulse 2 at the Kalaeloa Airport in Kapolei, Hawaii, Friday, July 3, 2015. The plane powered by the sun's rays landed in Hawaii after a record-breaking five-day journey across the Pacific Ocean from Japan. (AP Photo/Marco Garcia)



Martin Dahinden, Swiss Ambassador to the U.S., right, and pilot Bertrand Piccard, left, greet pilot Andre Borschberg after Borschberg landed the Solar Impulse 2 at the Kalaeloa Airport, Friday, July 3, 2015, outside Honolulu, in Kapolei, Hawaii. Borschberg spent five days flying the plane from Japan. The Solar Impulse 2 is attempting to fly around the world without fuel. (AP Photo/Marco Garcia)



Bertrand Piccard, left,and Andre Borschberg wave to the audience after Borschberg landed the Solar Impulse 2 at the Kalaeloa Airport, Friday, July 3, 2015 in Kapolei, Hawaii. The Solar Impulse 2 is attempting to fly around the world without fuel. (AP Photo/Marco Garcia)



Hawaii State Sen. Mike Gabbard, right, leads a cheer for pilots Bertrand Piccard, left, and Andre Borschberg after Borschberg landed the Solar Impulse 2 at the Kalaeloa Airport, Friday, July 3, 2015 in Kapolei, Hawaii. Borschberg spent five days flying the plane from Japan. The Solar Impulse 2 is attempting to fly around the world without fuel. (AP Photo/Marco Garcia)