Words in This Story

altitude - n. the height of something above the level of the sea

cable - n. a thick, strong rope made of wires that are twisted together

conform - v. to be similar to or the same as something

flutter - v. to move or flap the wings quickly without flying

frostbite - n. a condition in which part of your body freezes or almost freezes

turbulence - n. sudden, violent movements of air or water

Powerless Aircraft Sets Altitude Record

Two pilots recently set a new altitude world record for gliders.

A glider is an aircraft that does not have an engine. They are pulled into the air by powered airplanes and then released. They are designed to ride warm, rising air to gain altitude.

The Perlan II glider reach an altitude of 15,902 meters on September 3. The two pilots flew their aircraft above mountains in southern Argentina. The pilots beat the earlier world record for gliders by 441 meters.

The pilots hope the ability of their plane to reach the edge of outer space will influence young people to follow careers in science and engineering.

Reaching new heights

The glider was pulled into the air by a small plane. At about 3,000 meters, the plane released the connecting cable and started looking for strong updrafts of air, called the mountain waves, to take them higher.

According to chief pilot Jim Payne it took eleven flights to reach the altitude record.

"Basically, we take steps of certain amount of altitude and airspeed, gather data, analyze that data and if those data conform to our theory and the model we have for the airplane - then we can safely go on to the next step."

A glider flight at high altitude is very difficult. The glider has no engine to fight turbulence they may encounter.

Also, although the airspeed instrument shows the speed of only 80 to 90 kilometers per hour, the true airspeed can be much higher. At those high speeds, the wings may flutter to the point of breaking.

Also, it is very cold said pilot and project manager Morgan Sandercock.

"We have electric socks on the pilots, we literally could not fly without those electric socks, we would get frostbite. And heated vests and we're looking at upgrading our heating systems for next year because cold is the big issue that we've been dealing with this year."

Investing in the future

The Perlan II glider is made of special kind of light carbon fiber material. It also has improved mechanical properties. The company Airbus helped build the glider and transport it to Argentina.

Ken McKenzie, an employee with Airbus, says the company hopes the project will attract young people to science and technology.

"We want to actually grab the next group of pilots, engineers, mechanics, airport operators, flight attendants, basically kids that are in high school and university right now that may not have considered aerospace as a career and we want to inspire them."

In the future, the pilots hope to break the world altitude record for level flight of 25,929 meters, set in 1979 by the U.S. spy plane called the SR-71 Blackbird.

The pilots also plan to turn their aircraft into a non-polluting research vehicle for the stratosphere.

I'm Phil Dierking.

This story was originally written by George Putic for the VOANews. Phil Dierking adapted the story for VOA Learning English. Mario Ritter was the editor.

What record would you like to break? Would you be interested in flying at high altitudes? We want to hear from you. Write to us in the Comments Section or on 51VOA.COM.