

800-pound paper airplane takes flight

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A helicopter hoists the giant paper airplane into the sky. Image credit: Pima Air & Space Museum

(PhysOrg.com) -- An 800-pound, 45-foot-long paper airplane with a 24-foot wingspan may be the largest paper airplane ever to glide across the sky. After being hoisted to a height of 2,703 feet by a helicopter last Wednesday, the plane was released and glided for an estimated 7-10 seconds, reaching speeds of close to 100 mph.

The gigantic paper airplane is part of [The Great Paper Airplane Project](#) hosted by the Pima Air & Space Museum in Tucson, Arizona, with the goal of getting kids interested in science and engineering.

A much smaller paper airplane designed by 12-year-old Arturo Valdenegro, a seventh grader at Santa Cruz Catholic School in Tucson, inspired the design of the giant plane. Valdenegro, who is now considering a future career as an engineer, experimented with different paper airplane designs until he got one to fly 75 feet. That design beat out 150 others in the museum's paper airplane design contest in January.

After winning the contest, Valdenegro flew to Los Angeles to work on scaling up the design with Art Thompson, who formerly worked on the B-2 Stealth bomber for Northrop Grumman and for NASA and the U.S. Air Force. The team used falcon board, a type of corrugated cardboard, to build the plane. Among their challenges, they watched one of their mid-size models, a 15-footer, crash during a test flight.

Further challenges arose when Valdenegro, Thompson, and others first attempted to lift the final plane, dubbed Arturo's Desert Eagle, with a crane last week. The plane's wings began to fold and the fuselage buckled, so they wheeled it back to the tent hangar for repairs. Then they tried lifting the massive plane by the nose instead of the midsection with a Sikorsky helicopter, and achieved several seconds of high-speed gliding before stress on the tail sent the plane crashing to the ground. The huge plane suffered serious damage, but Valdenegro wasn't too upset.

"You can always make another one," he told the film crew.

More information: via: [Arizona Daily Star](#) and [PopSci](#)

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