

A Personal Flight Path

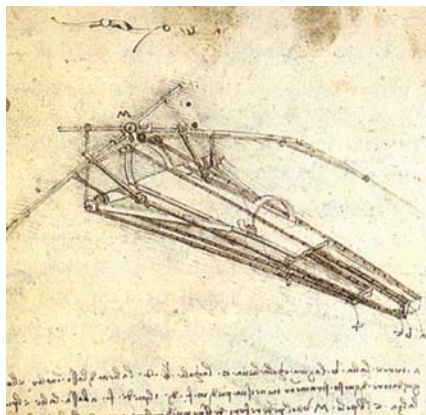
It's a bird. It's a plane. It's a . . . puffin? No, not the short-necked seabird with a colored bill. We're talking about NASA's *Puffin* — a personal flying machine. This personal airplane idea is just that, as it doesn't exist. However, the idea, conceived by aerospace engineer Mark Moore, is real. Researchers from Massachusetts Institute of Technology, Georgia Institute of Technology, National Institute of Aerospace and M-DOT Aerospace also helped. Like its namesake, NASA's *Puffin* "looks very awkward, with wings too small to fly," says Moore.

The 400-lb *Puffin* is an electric-powered device that measures 12-ft long with a 14.5-ft wingspan. Its electric motor propulsion could offer a wider range of possibilities than that of more traditional engines or turbines. Designed as part helicopter, part airplane, the *Puffin* lands and takes off like a helicopter with a tail section that opens up to reveal landing gear. Once airborne, the *Puffin* leans forward and flies flat like an airplane. It would have a reported battery life of 50 miles with a top speed of 150 mph, so this personal airplane would be ideal for a commute to work. Check out the *Puffin* in action at <http://news.discovery.com/videos/discovery-news-future-transportation>.



DaVinci's Dream

Among Leonardo DaVinci's numerous talents and studies, he created his own personal flying machine, known as an ornithopter. Reportedly he reflected on kites, birds and bats as inspirations for his machine. DaVinci never built his flying machine, but his notes and sketches show that its wingspan exceeded 33 ft and the frame was to be made of pine covered in raw silk. To power the plane, the pilot would pedal a crank connected to a rod-and-pulley system, and a hand crank for increased energy would have been available, as well as a headpiece for steering. Whether his flying machine could have actually gotten off the ground is debated, but once in the air, DaVinci may have soared through his dream.



"Flying may not be all plain sailing, but the fun of it is worth the price."

Amelia Earhart



Shoo, Fly, Don't Bother Me



A Harvard University project created the ultimate fly on the wall. It's a life-size robotic fly that has a wingspan of 3 cm and a weight of only 60 mg. The reason for this project is not to create

an indestructible nuisance, but rather to create an alternative new form of surveillance robots. *MIT Technology Review* reports that the U.S. Defense Advanced Research Projects Agency funded the research project in hopes that it could be used in battlefield and urban environments.

Airport Factoids

World's closest airports:

A flight between the gateways to Papa Westray and Westray, islands in the Scottish Orkneys, takes an average of 96 seconds.

World's shortest commercially serviceable runway:

Juancho E. Yrausquin Airport on the island of Saba is just 1,300 ft.

World's highest airport:

Tibet's Qamdo Bangda Airport is located at 14,219 ft above sea level.

World's largest airport building:

Terminal 3 in the Dubai airport is 12.76 million sq. ft.

Congratulations to **Jason Havard**, a professional member of ASSE's East Texas Chapter, for his winning caption in the *PS Create the Caption* contest. His entry appears below the photo of the month.

"That's not flying, that's just falling with style."

Woody, from the 1996 movie *Toy Story*

February Safety Photo of the Month



Of course it will hold; it's a sailor's knot.

Michael Gurevich
Staten Island, NY



If you have a cartoon, anecdote, joke or interesting safety item you'd like to submit for publication on this page, send your contribution to professionalsafety@asse.org. Submissions will not be returned.