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Ionised air to power flying saucers

Tuesday, 1 July 2008 Eric Bland
Discovery News

Scientists in Florida are planing to build a 'wingless electromagnetic air vehicle', or flying saucer *(Source: iStockphoto)*

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A new wingless, saucer-shaped aircraft is scheduled to take to the skies - just don't call it a UFO.

Professor Subrata Roy, a scientist at the University of Florida, calls his aircraft a "wingless electromagnetic air vehicle," or WEAV, and if it flies he says it could usher in a new age of aircraft design.

"If this works and we are able to fly it, this will be a quantum shift in how we see flying objects," says Roy.

The WEAV will use a physical phenomenon known as magnetohydrodynamics - used by Captain Marko Ramius's submarine in the movie *The Hunt For Red October*.

The fictional submarine engine had no moving or rotating parts. Instead it used a series of electrodes that ionised the water and pushed it out the back of the submarine, silently propelling it forward.

Whether a craft moves through water or air, the principle is the same.

Ionising plates

In Roy's WEAV there will be two different sets of electrodes placed on a thin ceramic plate. One set will be located on the top and bottom of the craft to move ionised air down, providing lift. Another set along the sides to propel the aircraft forward. The electrodes create a conducting fluid by ionising the surrounding air into plasma.

The force created by passing an electrical current through this plasma pushes around the surrounding air, and that air creates lift and momentum.

While the aircraft has no moving parts, the craft will spin to provide stability, the same way that the barrel of a rifle spins a bullet to make it fly straight.

This wouldn't be the first aircraft to fly using magnetohydrodynamics, says Anthony Colozza, a researcher at NASA's Glenn Research Center who is not involved in Roy's work.

According to Colozza, about eight years ago a NASA team used ionised air propulsion to fly an aircraft that was attached to an external battery.

Not for space travel

"When they first did it they thought it was miraculous, an anti-gravity machine, all that stuff," says Colozza. "Then they stuck it into a vacuum and it didn't move."

The new aircraft needs air or at least a magnetic field in order to operate. Therefore it wouldn't work in space or fly between planets, although Roy says it could fly missions on other planets.

And don't expect the WEAV to zoom away from earth like the flying saucers in the movies.

"Escaping [earth's] gravity pool is a different ball game altogether," says Roy.

Roy estimates that the first test flight could happen in as little as four months. If successful, the physics of magnetohydrodynamics lend themselves to larger aircraft, making larger-scale versions of the WEAV possible.

Whether the aircraft actually flies or not, it is already generating interest. NASA and the US Air Force have both contacted Roy, and UFO theorists have latched onto the development.

"We've been getting so many phone calls and emails, you wouldn't believe it," says Roy.

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