




Is It A UFO Or Maybe That Flying Car From The Jetsons? No, This Is Better Because It's Real

By Erin Richards | October 6th 2008 08:23 PM | [Print](#) | [E-mail](#)



Erin Richards

Search This Blog

If you're thinking about which hybrid vehicle to purchase, now that gas prices have dictated that you replace your Hummer, consider a vehicle that will not only eliminate high spending at the gas pump, but also your time spent in traffic. Wouldn't you rather fly above the endless traffic jams in your very own ethanol-fueled flying car? I know I would.

Science fiction, right? Guess again. Welcome to Moller Int., a small company nestled in the unassuming city of Davis, CA, where they are making this science fantasy into cold hard reality via the M400 Skycar, a

'volantor' sky vehicle. Volantor refers to the capability of a vertical takeoff and landing as well as its quick and agile flight.

Dr. Paul Moller, company founder, Chairman of the Board and also the company's President and Chief Executive Officer has, needless to say, invested his entire being into his vision. With a masters degree in Engineering and a Ph.D. in Aerodynamics, Moller's dream, since his first helicopter designs at the age of 15, has been to create viable flight vehicles for the general public. His realization of that dream became the Skycar.



Photo: Side view of the M400 Skycar from Moller Int. Personal aircraft vehicle capable of vertical liftoff, landing, hovering and cruising. Credit: Me! (aka Erin Richards)

Moller Int. currently has two working models of volantor aircraft. The M400 Skycar resembles a small sports car jet, bright red and glossy with a pointed nose, two sets of fans (which rotate for liftoff) and a Plexiglas cockpit, which seats four people. Moller imagines that it would be the best for people with regular trips over 50 miles, and would be much faster due to its ability to cruise between 200 miles/hour at sea level and up to 400 miles/hour at 25,000ft. "It's the kind of vehicle that would change the way you get around," declares Moller.



Photo: Front view of the Skycar. Also taken by me. To see it fly check out: [Skycar flight video](#)

KNOW SCIENCE AND WANT TO WRITE?

Apply for a column: writing@science20.com

DONATE OR BUY SWAG

Donate | **SWAG**

Please donate so science experts can write for the public.

At Science 2.0, scientists are the journalists, with no political bias or editorial control. We can't do it alone so please make a difference.



We are a nonprofit science journalism group operating under Section 501(c)(3) of the Internal Revenue Code that's educated over 300 million people.

You can help with a tax-deductible donation today and 100 percent of your gift will go toward our programs, no salaries or offices.

Popular Now | **New Comments** | **Events**

1. Holiday Chess Riddle
2. Homeopathic Effects Of Pesticides? And Climate Change Will Make It Worse
3. Everyone Knows Alcohol Causes Cancer - The US Government Finally Says It

Links | **Hot Topics**



► Giving Gifts Is One Of Our Oldest Human Legacies

[more](#)

The other model at Moller Int. is the M200X Neuera, formerly the Jetson, which most closely resembles a two person UFO. Its round shape, blue color and domed cockpit are reminiscent of the popular cartoon The Jetsons. Its usability ranges from farming to military, to shipping usages to border patrol. Moller envisions it competing with modern all terrain vehicles and as such its uses are endless. As fast as the average car, it can cruise easily at 75 miles/hour with top speeds near 100 miles/hour.



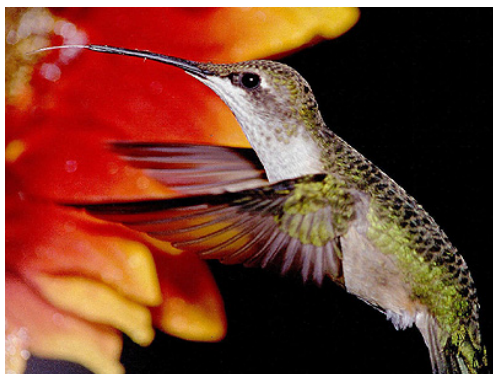
Photo: Moller's M200X Neuera/UFO vehicle. Credit: Me. To see a test flight check out: [Neuera flight video](#)

The M400 Skycar and the M200X Neuera are capable of vertical liftoff, landing, hovering and cruising with the success of two key elements: its engine and its stability system. The Skycar has an engine capable of generating a huge amount of power in a very small space.

"You would describe it as brute force," explains Moller. "That's why this particular class of aircraft is called powered-lift aircraft. Rather than going down a runway and generating lift on the wings, you have to literally generate the force [yourself]. If you want to go forward, you have to throw something out the back end. What we throw is air."

He likens his craft to hummingbirds; inherently graceful, nimble and known for their speed. Capable of hovering as well as flying, a hummingbird requires an immense amount of energy, eating two and a half times its weight in food just to be able to maintain flight. Hummingbirds are small and, as they hover, they push air down with their wings to generate the power to hold them airborne.

"That was the tricky part of our business," says Moller, "How to generate that large amount of power in a very small package. If the engine weighs a lot, you are just going to sit on the ground." Moller's advanced engine, the Rotapower engine, can generate 2 horsepower for every pound of its weight. "That's an absolutely new accomplishment," says Moller.



Hummingbirds create lift by forcing air downward with their wings. By doing so, they are able to hover. Credit: [South Carolina Dept. of Natural Resources](#)

File: 2008 10 06_Science 2 0_Is It A UFO Or Maybe That Flying Car From The Jetsons No This Is Better Because It s Real.pdf

URL: https://www.science20.com/erin039s_spin/it_ufo_or_maybe_flying_car_jetsons_no_better_because_its_real

Moller's technology, "as sophisticated as the system used to land a man on the moon," is not just for astronauts. The second key component of the Skycar is its artificial stabilization system, which allows all of us who aren't Neil Armstrong to pilot the vehicle. The stability system is a network which collects information such as change in velocity, acceleration and position every few milliseconds and integrates them, telling the engine how to adjust its speed to maintain the craft's stability. The advantage that these key elements give Moller's volantor crafts is undeniable.

The stability system allows for the average person to pilot the craft without the need for a pilot's license (at least from a skill level). This enables the vehicles to be available for the general public. Also, the improved engine provides a slew of advances over the common automobile.

The [Rotapower engine](#), which Moller hails as the "most significant mechanical invention of the 20th century," allows for a safer, more powerful, quieter and cleaner engine. "The beauty of the engine is that it's round, so I can hide it," says Moller. This is important because it forgoes the need for gear boxes found in regular aircraft and which are vulnerable to breakdown and malfunction. According to Moller, 40 percent of all helicopter crashes are due to powertrain failure, a risk he's eliminated with the usage of his [rotary engine](#).

Another advantage is the fuel that powers the Skycar and Neuera. [Ethanol](#), besides burning cleaner than gasoline, is much safer as well. "If you have an accident, the last thing you want have in that engine is gasoline, explains Moller. "It's extremely volatile, one spark and it's all over for you." Ethanol is able to be mixed with water and, while it burns within the engine, won't ignite outside of it. If in the case of a crash, or a fuel spill, the risk of fire or explosion is negated by using the ethanol-water mixture.

The M200X Neuera is currently in limited production for 2009 while the Skycar is 3 years away. Moller estimates that the Neuera will sell for under \$100,000 and could get under \$50,000 with increased volume. The Skycar, however, will sell for above \$100,000 dollars but is well worth the dough if having a cherry red volantor sky vehicle is your thing - and you know it is.

So before you shell out over a hundred thousand dollars on that new Maserati with its advanced aerodynamic engineering, only to be stuck in traffic with Yugos anyway, consider being where aerodynamics really count: in the sky.

For more information, visit Moller Int. at their website: <http://www.moller.com/>

Erin's Spin

MORE ARTICLES

- [H1N1 Vaccine: Examining Benefits Vs. Risk For Individuals](#)
- [HIV Halted By Plants](#)
- [Genetic Fitness - Biological Bias, Not Societal, Explains Promiscuous Men And Chaste Women](#)

ABOUT

I am a current graduate student at USC Annenberg School for Communication and Journalism. I write for Neon Tommy, a digital news website, as a science...

RELATED ARTICLES

- ◆ [Hummingbirds Rely On Raw Power, Not Physique, To Outmaneuver Rivals](#)
- ◆ [Odyssey IV- Swims Like A Fish, Hovers Like A Helicopter](#)
- ◆ [DeFly Micro Air Vehicle Weighs Just Three Grams](#)
- ◆ [How Do Hummingbirds Hum? A Study In Metabolic Respiration](#)
- ◆ [Eocypselus Rowei: Hummingbird Precursor Discovered](#)

COMMENTS

Who's
Online?

[About Us](#) | [Contact Us](#) | [RSS](#) | [Terms](#) | [Privacy](#) | [Copyright and Removal](#) | [Advertise with Us](#)

© 2025 Science 2.0