

Up, up and away—flying taxis look to France's city of revolution to unleash change on the skies

June 22 2023, by John Leicester



The Volocopter 2X, an electric vertical takeoff and landing multicopter, performs a demonstration flight during the Paris Air Show in Le Bourget, north of Paris, France, Monday, June 19, 2023. Credit: AP Photo/Lewis Joly

Just a dot on the horizon at first, the bug-like and surprisingly quiet electrically-powered craft buzzes over Paris and its traffic snarls, treating its doubtless awestruck passenger to privileged vistas of the Eiffel Tower and the city's signature zinc-grey rooftops before landing him or her with a gentle downward hover. And thus, if all goes to plan, could a new page in aviation history be written.

After years of dreamy and not always credible talk of skies filled with flying, non-polluting [electric taxis](#), the [aviation industry](#) is preparing to deliver a future that it says is now just around the corner.

Capitalizing on its moment in the global spotlight, the Paris region is planning for a small fleet of electric flying taxis to operate on multiple routes when it hosts the 2024 Olympic and Paralympic Games next summer. Unless aviation regulators in China beat Paris to the punch by green-lighting a pilotless taxi for two passengers under development there, the French capital's prospective operator—Volocopter of Germany—could be the first to fly taxis commercially if European regulators give their OK.

Volocopter CEO Dirk Hoke, a former top executive at aerospace giant Airbus, has a VVIP in mind as his hoped-for first Parisian passenger—none other than French President Emmanuel Macron.

"That would be super amazing," Hoke said, speaking this week at the Paris Air Show, where he and other developers of electric vertical take-off and landing aircraft—or eVTOLs for short—competed with industry heavyweights for attention.



The Archer midnight flying taxi is exhibited at the Paris Air Show, Wednesday, June 21, 2023 in Le Bourget, north of Paris. Aviation industry CEOs and top government officials from around the world descended on the Paris Air Show for a week of deal-making and demonstrations of the world's latest air and space technology. Credit: AP Photo/Michel Euler

"He believes in the innovation of urban air mobility," Hoke said of Macron. "That would be a strong sign for Europe to see the president flying."

But with Macron aboard or not, those pioneering first flights would still be just [small steps](#) for the nascent industry that has giant leaps to make before flying taxis are muscling out competitors on the ground.

The limited power of battery technology restricts the range and number of paying passengers they can carry, so eVTOL hops are likely to be short and not cheap at the outset.

And while the vision of simply beating city traffic by zooming over it is enticing, it also is dependent on advances in airspace management. Manufacturers of eVTOLs aim in the coming decade to unfurl fleets in cities and on more niche routes for luxury passengers, including the French Riviera. But they need technological leaps so flying taxis don't crash into each other and all the other things already congesting the skies or expected to take to them in very large numbers—including millions of drones.



People talk by the eHang autonomous aerial vehicle at the Paris Air Show, Wednesday, June 21, 2023 in Le Bourget, north of Paris. Aviation industry

CEOs and top government officials from around the world descended on the Paris Air Show for a week of deal-making and demonstrations of the world's latest air and space technology. Credit: AP Photo/Michel Euler

Starting first on existing helicopter routes, "we'll continue to scale up using AI, using machine-learning to make sure that our airspace can handle it," said Billy Nolen of Archer Aviation Inc. It aims to start flying between downtown Manhattan and Newark's Liberty Airport in 2025. That's normally a 1-hour train or old-fashioned [taxi](#) ride that Archer says its sleek, electric 4-passenger prototype could cover in under 10 minutes.

Nolen was formerly acting head of the Federal Aviation Administration, the U.S. regulator that during his time at the agency was already working with NASA on technology to safely separate flying taxis. Just as Paris is using its Olympic Games to test flying taxis, Nolen said the 2028 Los Angeles Olympics offer another target for the industry to aim for and show that it can fly passengers in growing numbers safely, cleanly and affordably.

"We'll have hundreds, if not thousands, of eVTOLs by the time you get to 2028," he said in an interview with The Associated Press at the Paris show.



The Volocopter 2X, an electric vertical takeoff and landing multicopter, right, performs a demonstration flight during the Paris Air Show in Le Bourget, north of Paris, France, Monday, June 19, 2023. Credit: AP Photo/Lewis Joly

The "very small" hoped-for experiment with Volocopter for the Paris Games is "great stuff. We take our hats off to them," he added. "But by the time we get to 2028 and beyond ... you will see full-scale deployment across major cities throughout the world."

Yet even on the cusp of what the industry portrays as a revolutionary new era kicking off in the city that spawned the French Revolution of 1789, some aviation analysts aren't buying into visions of eVTOLs becoming readily affordable, ubiquitous and convenient alternatives to ride-hailing in the not-too-distant future.

And even among eVTOL developers who bullishly talked up their industry's prospects at the Paris show, some predicted that rivals will run dry of funding before they bring prototypes to market.

Morgan Stanley analysts estimate the industry could be worth \$1 trillion by 2040 and \$9 trillion by 2050 with advances in battery and propulsion technology. Almost all of that will come after 2035, analysts say, because of the difficulty of getting new aircraft certified by U.S. and European regulators.



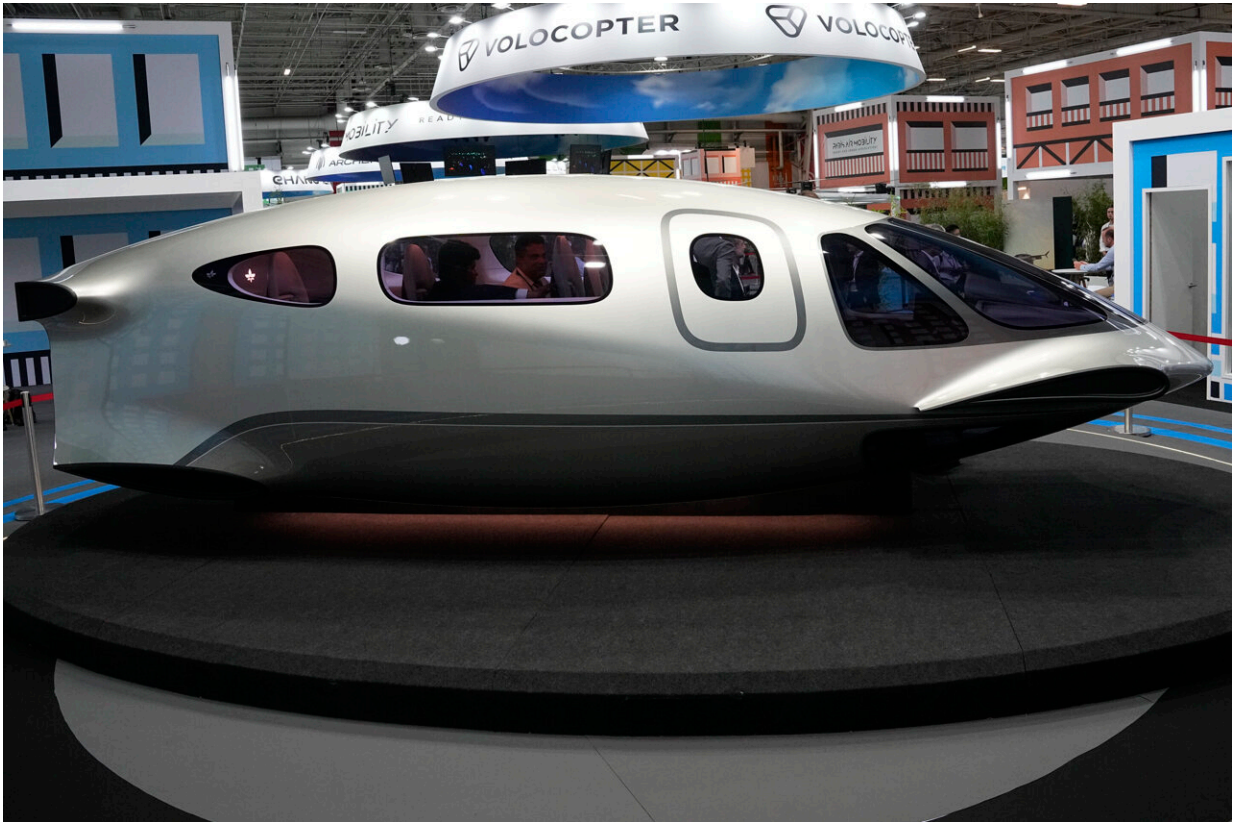
Volocopter CEO Dirk Hoke poses for a picture next to the Volocopter 2X, an electric vertical takeoff and landing multicopter, during the Paris Air Show in Le Bourget, north of Paris, France, Monday, June 19, 2023. Credit: AP Photo/Lewis Joly



The Archer "midnight" flying taxi is exhibited at the Paris Air Show, Wednesday, June 21, 2023 in Le Bourget, north of Paris. Aviation industry CEOs and top government officials from around the world descended on the Paris Air Show for a week of deal-making and demonstrations of the world's latest air and space technology. Credit: AP Photo/Michel Euler



Volocopter CEO Dirk Hoke poses for a picture next to the Volocopter 2X, an electric vertical takeoff and landing multicopter, during the Paris Air Show in Le Bourget, north of Paris, France, Monday, June 19, 2023. Credit: AP Photo/Lewis Joly



German developed Lilium's electric jet prototype is exhibited at the Paris Air Show, Wednesday, June 21, 2023 in Le Bourget, north of Paris. Aviation industry CEOs and top government officials from around the world descended on the Paris Air Show for a week of deal-making and demonstrations of the world's latest air and space technology. Credit: AP Photo/Michel Euler



The Volocopter 2X, or VoloCity air taxi, an electric vertical takeoff and landing multicopter, performs a demonstration flight at the Paris Air Show, Wednesday, June 21, 2023 in Le Bourget, north of Paris. Aviation industry CEOs and top government officials from around the world descended on the Paris Air Show for a week of deal-making and demonstrations of the world's latest air and space technology. Credit: AP Photo/Michel Euler



German developed Lilium's electric jet prototype is exhibited at the Paris Air Show, Wednesday, June 21, 2023 in Le Bourget, north of Paris. Aviation industry CEOs and top government officials from around the world descended on the Paris Air Show for a week of deal-making and demonstrations of the world's latest air and space technology. Credit: AP Photo/Michel Euler



The Volocopter 2X, an electric vertical takeoff and landing multicopter, performs a demonstration flight during the Paris Air Show in Le Bourget, north of Paris, France, Monday, June 19, 2023. Credit: AP Photo/Lewis Joly

"The idea of mass urban transit remains a charming fantasy of the 1950s," said Richard Aboulafia of AeroDynamic Advisory, an aerospace consultancy.

"The real problem is still that mere mortals like you and I don't get routine or exclusive access to \$4 million vehicles. You and I can take air taxis right now. It's called a helicopter."

Still, electric taxis taking to Paris' skies as Olympians are going faster, higher and stronger could have the power to surprise—pleasantly so,

Volocopter hopes.

One of the five planned Olympic routes would land in the heart of the city on a floating platform on the spruced-up River Seine. Developers point out that ride-hailing apps and E-scooters also used to strike many customers as outlandish. And as with those technologies, some are betting that early adopters of flying taxis will prompt others to try them, too.

"It will be a total new experience for the people," said Hoke, Volocopter's CEO. "But twenty years later someone looks back at what changed based on that and then they call it a revolution. And I think we are at the edge of the next revolution."

© 2023 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Up, up and away—flying taxis look to France's city of revolution to unleash change on the skies (2023, June 22) retrieved 2 May 2024 from <https://techxplore.com/news/2023-06-awayflying-taxis-france-city-revolution.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.