Directory
Urban Air Mobility

# JAURIT

### Journey to Advanced Air Mobility

#### Jaunt Air Mobility Brings a Different Perspective

Entering into advanced air mobility (AAM), the design of the Jaunt Journey brings the proven SRC (slowed rotor compound) technology to market with a certification path as a rotorcraft.

"Jaunt allows me to come at rotorcraft from a new angle and deal with some of the problems associated with traditional rotorcraft," says Martin Peryea, SVP and GM of Electric Air Mobility, Jaunt Air Mobility, an AIRO Group Company. "Today's helicopters are welldeveloped designs and do one mission particularly well: vertical lift and hover. This limitation of traditional rotorcraft has been known in the industry for years. Most companies are now researching and developing compound VTOL aircraft. A compound VTOL aircraft like our Jaunt aircraft retains hover and low-speed capabilities and can take off and land vertically, then fly efficiently like a conventional airplane. We are also addressing other characteristics associated with traditional rotorcraft, such as noise and improved safety, which are critical for urban air mobility and public acceptance."

Jaunt's proprietary SRC technology allows the aircraft to land via autorotation or by gliding in a controlled fashion should there be an unexpected total loss of propulsion. The pilot can choose a safe landing spot and completely control the aircraft during descent. No ballistic parachute is required. Continuing to take a slightly different path to commercialisation, Jaunt Air Mobility merged with AIRO Group Holdings, Inc. in 2022. AIRO announced its merger with a SPAC with Kernel Group Holdings (NASDAQ: KRNLU) earlier this year. The organisation is positioning itself as a new middle-market aerospace and defence sector company operating in four key divisions:

- Advanced avionics: highly critical electronic systems used in aircraft. Application areas include communications, navigation, monitoring, flight-control systems, artificial intelligence, collision-avoidance systems, radar and electro-optics.
- Electric air mobility: eVTOL (electric vertical takeoff & landing) aircraft. Application areas include air taxi, cargo, emergency services, commercial and military.
- Uncrewed air systems: UAS platforms and services for civilian/commercial and military applications. Application areas include reconnaissance, attack, surveillance, inspection, weather analysis and healthcare.
- Training: professional and military aviation training for clients within the wider A&D sector. Application areas include customer-specific solutions, close air support, aircraft leasing, ab initio pilot training and training or aviation consulting services.

The company plans to design and manufacture the Jaunt aircraft in Montréal, Canada, and will work with

Transport Canada for certification. *"We are working closely with the aerospace sector, whose technical expertise is known globally and with the federal and provincial governments,"* says Eric Côté, President of Jaunt Canada.

Jaunt Air Mobility now has customers in North America, Central America, South America, Europe and Asia. "Working with each customer brings its own regional needs and requirements," says Jaunt's Chief Commercial Officer Simon Briceno. "For example, the Jaunt Journey can improve the transportation needs of highly congested cities such as in India and Mexico. Our aircraft can also operate at high altitudes to meet the performance demands in places like Mexico City."

Beyond Jaunt's AAM customers, the team was awarded several contracts under the AFWERX Air Force programme. Studies conducted with Penn State and Continuum Dynamics, Inc. employed novel acoustic analysis techniques to develop and characterise noise from Jaunt's unique compound aircraft to understand rotor-propeller interactions. The studies demonstrated that Jaunt's single main rotor, low tip speed, and low disk loading generate the least noise. In investigating novel thermoplastics technologies and low-cost production techniques, Jaunt, Qarbon Aerospace and Georgia Tech showed a 60% reduction in assembly time, a 40% reduction in manufacturing space required and a 20% reduction in CapEx.

Lastly, an essential area of deployment for urban air travel, Jaunt worked with BAE Systems and Binghamton University to establish requirements for extreme fast charging. It assessed technology for a design that increases power density while reducing charger costs. The proposed solution has nearly 2x the specific power of commercial chargers. Jaunt continues to work with the US Department of Defense on various military programmes.

Jaunt Air Mobility is proud to be part of this new evolution of transportation and to contribute time and resources to the global AAM effort. Jaunt's team participates on various panels, and regulatory committees are actively working on issues such as infrastructure.

#### jauntairmobility.com

## Trust the Experience

### The Jaunt Journey eVTOL

- ( Superior Performance
- 🔅 True Certification Path
- Proven Patented Technology
- Highest Level of Safety





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