

Flying taxis: How DFW is poised to lead the transportation revolution

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Hybrid aircraft technology will change urban transportation as we know it, and Dallas-Fort Worth will lead the way through an Uber plan to go airborne, according to an expert in the technology.

"Uber changed people's paradigm of what transit can be on the ground," retired Air Force General and transportation futurist John E. Michel told the Dallas Business Journal in an exclusive interview. "Now, they're shredding the paradigm of what public transport can mean in the air."

Uber is working with several partners including Bell Helicopter in Fort Worth to develop electric, flying taxis for its Uber Elevate ride-hailing service scheduled to debut in Dallas-Fort Worth and Dubai in 2020.

Uber Elevate will be a boon to DFW and position North Texas as a pioneer with this game-changing and attention-grabbing technology, said Michel, who led NATO's 14-nation effort to build a modern \$7 billion Afghan Air Force in the middle of an active war zone. His efforts in Afghanistan were awarded a 2014 Secretary of Defense Award for Excellence.

Countries around the world are grappling with the increasing congestion, cost and environmental impact of personal transportation, Michel said. Gyroplanes like those being developed for Uber Elevate are uniquely positioned to address these challenges, he said.

These vertical takeoff and landing vehicles, called VTOLs, require no runway, are simple to operate and maintain, do not require expensive infrastructure and are "remarkably safe," Michel said.

The technology has the potential to disrupt urban transportation by adding airspace to the mobility service mix, he said.

The biggest challenge with the technology is the electrification of the aircraft, Michel said. "We're several years away from that," he



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said. "You may see hybrids of electrified aircraft, but it's pretty ambitious to say inside of three years you're going to see (fully electrified VTOLs)."

Michel is managing director of Switch Mobility, sits on the board of Skyworks Global, and is chairman of DemandTrans, whose demand-responsive transportation technologies are used in major cities across the country.

Skyworks Global and Switch Mobility this month announced a joint venture aimed at making door-to-door, customized transportation an app click away.

Skyworks specializes in gyronautics – the type of technology that directly supports the Uber Elevate urban air taxi concept. Switch Mobility provides an application that integrates real-time, micro-transit ride generation capability into a comprehensive transit platform for consumers.

The two companies are joining forces to work on adding urban air movement to the end-to-end trip chain that already includes multimodal ground transportation.

"Everybody wants integrated trips and they want much more efficiency," Michel said. "The goal is to seamlessly integrate all forms of travel, so all people need is a smart phone, and with the click of a single button, all of your tickets are there, all of your payments are there and everything."

Uber's vision for "on-demand aviation" would use networks of small, electric-powered vehicles that can take off and land vertically and have ranges of 50 to 100 miles on a single charge. The eventual goal is to have them operate autonomously, summoned through an app on a passenger's phone, but they would likely operate with human pilots in the near term.

DFW is the oldest Uber market in Texas.