

First in flight again: Pilotless air taxi makes public demonstration flight in Raleigh

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More than 100 people, including Gov. Roy Cooper, state lawmakers and leaders of the N.C. Department of Transportation, gathered at the State Highway Patrol's test track south of Raleigh Tuesday afternoon to



witness a bit of aviation history.

They were there to see what was billed as North America's first public demonstration flight of a pilotless air taxi. As they braced themselves against a stiff northwest wind, the EH 216, a two-seat drone made by the Chinese company EHang, was parked some 500 feet away, down a slight hill, outside of their view.

NCDOT had spent nearly 10 months arranging for EHang to bring its drone to Raleigh, in conjunction with the department's annual Transportation Summit this week. Transportation Secretary Jim Trogdon said North Carolina not only wants to be ready for new technologies like this but also hopes to lure the companies that are developing them.

"Autonomous connected vehicles of any type are where transportation is headed," Trogdon said in an interview. "We want to bring these kinds of opportunities to make sure that we're economically competitive."

Sixteen sets of electric motors and propellers lift the EH 216 into the air and move it forward along pre-programmed routes at up to 80 mph, said Derrick Xiong, Ehang's cofounder. The craft weighs about 600 pounds and can carry another 500 to 600 pounds of cargo or people, Xiong said.

Ehang has built dozens of them and has made demo flights like this one in Amsterdam, Vienna, Qatar, Dubai and in several cities in China, Xiong said. He said the craft is in the "very early stage of commercialization" in China, mostly limited to sightseeing flights.

The Federal Aviation Administration doesn't permit <u>autonomous aircraft</u> to carry people, so no one flew in the EH 216 on Tuesday. Under FAA guidelines, NCDOT had to treat the demonstration flight as it would an airshow, keeping spectators back 500 feet and having a fire truck and ambulance on hand.



Still, comparisons with the first powered flight at Kitty Hawk were inevitable, starting with Cooper, who, like Trogdon, spoke about the potential economic benefits of building relationships with aviation companies such as EHang.

"The Wright Brothers made North Carolina first in flight 116 years ago," Cooper said. "But first in flight isn't just something that we were—it's something that we are."

Xiong started Ehang in 2014, the year after he graduated from Fuqua School of Business at Duke University. The company envisions a day when fleets of its autonomous vehicles are flying passengers and cargo around urban areas.

"This is the very beginning of transforming the two-dimensional transportation system into 3-D," he told the crowd. "And now ... let's just witness the future and create the future together."

The future was delayed for about a half hour, because of problems with the radio signal, and people who had intently watched the horizon began to mill about. When the EH 216 suddenly rose up into the air, so did everyone's cell phones.

"We've known for years this was out there," said Rep. John Torbett, who heads the House Transportation Committee. "But to see it, touch it, feel it, that brings it home."

Several companies are developing autonomous air taxis, including Boeing and Airbus. What makes EHang particularly attractive to North Carolina, Trogdon said, is that the company is also working to create an airspace management system that can digitally manage hundreds of flying taxis at a time.



"That's even more important, I believe, than just developing the airframe," he said.

Trogdon said the next step will be working with the FAA to allow a demonstration flight with people on board, followed by limited real-world use in a place like the Triangle. NCDOT is following a similar path with package delivery on small drones in Wake County, under an FAA-sanctioned demonstration program.

After a five-minute flight over the test track, the EH 216 landed, and the crowd was allowed to walk down for a closer look. People posed with the craft for pictures, careful not to touch it.

Then with EHang's blessing, some state officials opened the doors and sat in it. Eventually, Cooper and Xiong walked down together and got in. As he did, Cooper, said the words that were no doubt on other people's minds: "Meet George Jetson."

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