

NEWS FOR RELEASE: February 8, 2021

AN FOLEY ASSOCIATES

Flying Taxi Concepts Gain Traction but Practical Challenges Remain

Urban Air Mobility (UAM) is suggested by some industry participants and investors to be the next big disruptor in air transportation. It's envisioned that Jetson-like, small flying pods, often battery powered, will whisk passengers on short intra-city or regional hops starting with the press of an app, all while leaving an ecologically friendly footprint at relatively economical air travel fares.

Known as eVTOLs for Electric Vertical Takeoff and Landing, these vehicles and support ecosystem are argued by some to be the most significant civil air transportation development since the jet age. They have spawned hundreds of individual air vehicle designs, plans for ground and air infrastructure projects, government participation and most importantly, outside investment. Some concepts even contemplate eventually doing away with the pilot altogether and flying autonomously. To this community of mavericks and evangelists, it isn't a question of if, but when.

As is often the case with new ideas, there are those on the other side of the fence who aren't quite onboard just yet. Some are reminded of the previous Eclipse Aviation siren song. Back in the early 2000's investors poured upwards of US \$1 billion into the promise of a new, tiny, low cost, entry-level private jet that would eventually darken the skies with 1000 deliveries per year. While the aircraft had technical merit, the production costs and sales price were incompatible, resulting in its demise after only 260 units were built.

Other critics question the noise acceptability of a fleet of these vertical takeoff and landing vehicles, like a helicopter, buzzing around a city. They make the analogy of taking that pesky noise produced by a hobby drone and then scaling it up to a platform that carries several occupants using multiple rotors. By reason, it's argued, it should be much louder, and perhaps not much less than a traditional small helicopter which are often banned from some downtown locations in part due to noise concerns.

Naysayers top it off by pointing out the difficulty in obtaining stringent vehicle certification by regulatory authorities such as the FAA in the U.S., and that manufacturing in quantity is no small feat for newcomers. Plus, it's argued, we already have helicopter services in many cities which thus far have been underutilized, which questions how a newfangled rotorcraft would make any difference.

The arguments could go on forever, with each side having a quippy rebuttal to quash the other. That said, this time just may be different, with the real prospects for the UAM concept probably somewhere in the middle of each faction - eventually.

First, there's a lot of outside funding coming into the space and interest from big name companies across different industries. Hundreds of millions in development dollars have already poured in backing previously unknown startups, while established aerospace manufacturers fund their own homegrown designs. While Uber Boeing have recently taken a step back, strategics like Airbus, Textron's Bell Flight and Embraer march on.

The automotive industry has even taken notice, with companies like Hyundai and Toyota putting chips down in the emerging sector. Stodgy General Motors just got into the act, suggesting that the top of the hype curve may have been reached.

Certification agencies have even gotten out in front of it, developing custom airspace rules and aircraft certification requirements pertaining just to these types of vehicles. The U.S. Air Force, which has it's own set of less stringent rules, has blessed one of the startup eVTOL designs opening up early sales to the military.

In all, this aviation rally can't be compared to previous revolutionary flash-in-the-pans since there now a multitude of important players onboard including investors, the military, private industry and regulatory authorities. More than anything there's ample development money which has found its way to the most promising startups. Stakeholders have put chips on the table in part due to fear of missing out. Perhaps Silicon Valley's naivety to the costs and risks involved with such an endeavor will work in its favor. If they had heeded the advice that only NASA can put the U.S. in space, there never would have been a booming private space launch industry today.

Feasible or not, the eVTOL train has left the station.

About Brian Foley Associates (BRiFO)

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