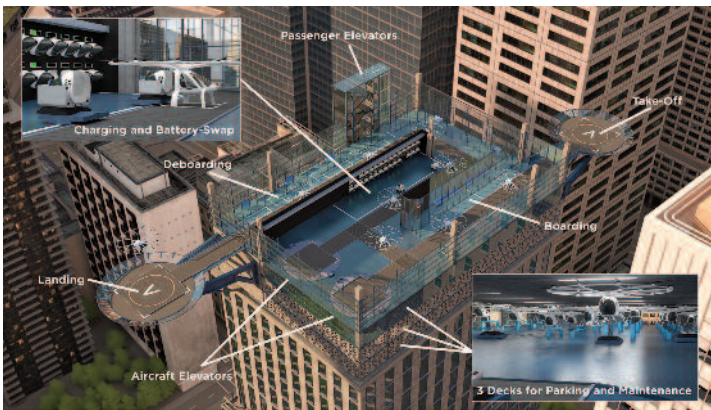


Drones as Air Taxi: A feasibility



When for the first time I saw the drones way back in 2014 at CES – they were impressive as toys, for aerial surveillance, remote sensing, agriculture, motion picture/weddings/parties filmmaking, oil, gas, and mineral exploration, disaster relief etc but never imagined that they can have a potential to be converted into air taxis.

The first drones were used by the military and defense world when manned flight is considered too risky or difficult. But with all the attention that they have been receiving, these unmanned aerial vehicles are now finding more practical and innovative uses. Two revolutionary ideas will be to use drones for shipping and delivery applications as they could significantly improve delivery times be it delivering pizzas, letters, or even small parcels and reducing human work.

The other which would take some time, thanks to a large number legislations and insurance issues, will be the use of them as Air taxis. But already US, China, Dubai, Germany and Israel are experimenting on the feasibility of commercial operations by 2025. One of the first cities to make a move was Dubai with a maiden air taxi test flight with Volocopter in Sept 2017. I had the pleasure of seeing the air taxi at GITEX, Dubai.

With Uber, shortlisting India and feeling that Mumbai, Delhi and Bengaluru being one of the most congested cities in the world UberAir will certainly make a difference. Though an air taxi they will offer a service over our congested roads. These proposed taxis would be able to accommodate four passengers each and can fly at a speed of 200 miles per hour (322 kph). UberAIR, which sees NASA and Uber teaming up, plans to launch demo flights by 2020 and hopes to launch the paid service by 2023.

Add to this the drone policy that was unveiled recently will make the domestic drone market to take off and the air taxi operation in India a reality soon. Speaking on the policy Civil Aviation Minister Suresh Prabhu said “The guidelines would help foster technology and innovation in the development of drones — devices which have an extensive range of applications ranging from disaster relief to agriculture. The drone market in India holds the potential of hitting over \$1 trillion. We plan to develop drone manufacturing not only for the domestic market but abroad as well. India’s expertise in technology is characterised by its capacity to devise low-cost solutions.”

One of the major utilization of air taxis, could be to fly passengers from cities to airports and vice versa. But the price need to

How nice it would be if the 100-minute journey from the Mumbai’s city airport to Churchgate can come down to 10 minutes. This is a feasibility with the arrival of air taxi feels Eric Allison, chief executive, Uber Aviation Program. Recently Uber Air announced that it has shortlisted five countries - India, Japan, Australia, Brazil and France for its air taxi project and we Indians have become quite enthusiastic about it feels **Chandragupta Amritkar**

be competitive and for that the most important thing would be that the batteries that power drones continue to improve. Improvements in battery technology should provide investment opportunities during the next five to ten years. The major advantages of drone air taxis will be – As they are 100 % electric no need of combustion engine, fuel and no direct emissions

Many startups like Volocopter, eHang, Kitty Hawk and established firms like Boeing, Airbus, Uber are investing in the development of autonomous passenger drones. These electric Vertical TakeOff and Landing (eVTOL) drones will fly over the traffic jams making the urban life simpler.

Volocopter

The Volocopter 2X can fly completely autonomously or be easily operated using a joystick and assistive systems for support. The vision integrates air taxis into existing transportation systems and provides additional mobility for up to 10,000 passengers per day with a single point to point connection. Co-founder Alex Zosel expects the first full Volocopter air taxi systems with dozens of Volo-Hubs and Volo-Ports to be in place within the next



10 years, capable of flying 100,000 passengers an hour to their desired destination. They are based on drone technology and scaled up to carry two people, ini-

