Drones used for last-mile delivery are “here to stay”

08 / 09 / 2021

By Damian Brett

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Drones will become a preferred transportation mode for last-mile deliveries of pharma products into hard-to-reach areas with a concentration of healthcare facilities in the coming years, according to a new white paper from Pharma.Aero and the Humanitarian Logistics Association.

The whitepaper, which included the results of an interactive survey, found that higher density of health facilities, especially in hard-to-access areas, enable UAVs to work more efficiently, as shorter distances can be operated and as more flights can be made to meet demands.

Among the survey participants, which included participants from the logistics, pharma, humanitarian, medical and drone sectors, 58.3% responded that they see a medium-term horizon (one to five years) for drone deployment within their organisation.

Trevor Caswell, manager of demand and product development at Edmonton International Airport, and vice chairman, Pharma.Aero said: “With the advancements in drone technology coming so far in the recent years, the future of Unmanned Aerial Vehicles (UAVs) is here.

“Drones being used for last mile delivery is here to stay, and projects like this will provide insights to our members and industry on how drone technology could become more integrated in the pharmaceutical supply chains, delivering life-saving products directly to the end user.”

Asked how they would like to see drones improved, the survey respondents ranked range as the most important area for development, followed by; weight, all-weather availability, capability to fly over cities, logistics infrastructure dependency, volume and speed.

Backing this finding up, the white paper also found pharma specialists are more likely to acknowledge the application of drones for distances over 120 km.

However, the need for greater range creates the requirement for specific infrastructure as smaller multicopter drones that require less infrastructure tend to have a range of around 20 km, while fixed-wing drones that require runways for takeoff and landing can fly up to 500 km.

While the whitepaper predicts the increased use of drones, it also pointed out some of the main challenges that lie ahead.

“In order for UAV to be considered as an integral part of air cargo, there are still areas to be addressed by the industry and regulatory bodies,” it said.

“Countries across the globe need to align on standards, regulations and guidelines to ensure safety of UAV for final mile deliveries. With this, there could be higher understanding and acceptance from the pharma and air cargo industry to increase the use of UAVs as a form of freight transportation in the pharma supply chain.”