



SKYBUS AND SKYTRUCK - LYTE AVIATION REVEALS ITS 40-SEAT HYBRID EVTOL

News / Manufacturer



LYTE Aviation reveals its 40-seat eVTOL SkyBus and SkyTruck programme. Its LA-44 SkyBus and complementary SkyTruck cargo variant, designed around a 4.5 tonne payload, is the accumulation of three years' R&D. The result is a vertical take-off and landing vehicle - designed to be five times more fuel efficient than current helicopters. The SkyBus will offer a range of 1,000 km with a max speed of 300 km/hr, using mainly technology available today. The LA-44 is a hybrid electric tandem tilt-wing design, disrupting other futuristic looking next-gen designs. A full-scale prototype is being planned within 24 months.

LYTE Aviation's SkyBus' design features two separate propulsion systems, one electric and powered by hydrogen fuel cells, the other turbine powered by jet fuel / SAF. Freshta Farzam, LYTE Aviation Founder & CEO, explained the design: "The use of turbine engines will likely remain unavoidable for the foreseeable future, so in order to achieve useful and business-sensible ranges as well as quicker time to market, we have opted for a hybrid, partly electric VTOL. My personal inspiration with this operating concept stems from the Rotodyne aircraft of the 1950's. Imagine 70 years later after accomplishing those 350 successful test flights, what can be achieved

thanks to the advances in technology that we have seen, and continue to see. Conventional, highly reliable turboprops are the best option for our aircraft programme for the time being, with the aim to operate and refuel practically anywhere with the current infrastructure. With the constant evolution and expected investment in global infrastructure, including vertiports, energy sources (SAF & green Hydrogen) and electric powerplants, the ambition would be to become fully hydrogen-electric in the future. ”



LYTE Aviation LA-44 design, presented for the first time is powered by four conventional turbine engines, running on sustainable aviation fuel complemented with four electric motors at the wingtips for control and stability, powered by hydrogen fuel cells.

“We are focusing on facilitating the easy movement of passenger and cargo air transportation in a fast, safe, cost-effective and sustainable way. SkyTruck will be designed to deliver time-sensitive cargo faster from point to point, without reliance on runways, designed for the time critical demands of the onshore and (especially) offshore industry,” said Freshta. Furthermore, the LA-44 would be honed for operation in other rugged operational conditions and (in the absence of ground infrastructure) in remote areas. It will feature underslung load capability: a 4.5 tonne payload and 17 tonnes’ gross weight. The LA-44’s unique design will enable us to tap mass transport capabilities, displacing air transport and land transport modalities such as buses, trains and trucks. LYTE Aviation’s vision is to significantly enhance speed and frequency of passenger mass transit and cargo deliveries. The LA-44 represents the work of LYTE’s world-class team, who collectively hold 200 years’ aviation experience. ”

Speaking at *Helicopter Investor 2023* in London Freshta introduced two newly disclosed early believers who are joining LYTE Aviation in this collaboration.

Inmarsat and Inflight Canada are early partners

Newly signed Inmarsat and Inflight Canada share the same vision for an exponentially growing aviation market. Inmarsat is one of the largest recognised suppliers of satellite communication

services worldwide.

Anthony Spouncer, Senior Director of ITM at Inmarsat commented: "Inmarsat is excited to team with LYTE Aviation and be a key partner in delivering a safety information service to and from the LA-44 platform, as part of a line-fit delivery programme for its hybrid electric vehicle. Inmarsat has been a trusted provider of critical safety communications for aviation for over 30 years. Its systems are assured, proven and available line-fit with major OEMs globally."

Inflight Canada, a leading Transport Canada, FAA and EASA approved aerospace design organisation and inflight specialist which supports aerospace projects from conception, engineering and integration through to maintenance and manufacturing, will partner LYTE for the 'reversible' cargo modification.

George Smallhorn, General Manager of Inflight Canada commented: "IFC is very excited and keenly interested in participating with the development of a SkyTruck version of the LA-44. With a range of 1000km and the flexibility of vertical operations, the sheer usefulness of this aircraft is well beyond the current technology in use today."



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