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SOLAR-POWERED AUTONOMOUS AIRSHIPS

 MOBILITY & TRANSPORT

Vertical take-offs make the airships ideal for difficult-to-reach locations

Spotted: Helicopters' ability to take off and land vertically makes them well-suited for use in areas of the world with less developed infrastructure. Depending on the type of aircraft, helicopters carry between 20 and several hundred gallons of fuel. But despite their efficiency in shorter flights, the dependence of helicopters on jet fuel for longer flights contributes to the [International Energy Agency's](#) (IEA) evaluation of the aviation industry as being off track. The IEA highlights that jet fuel demand will massively outweigh the planned production capacity for sustainable aviation fuels by 2027.

One of the best ways to reduce demand for jet fuel is to produce aircrafts that run on sustainable alternatives. South African flight technology company Cloudline has created autonomous solar-powered airships to provide remote delivery services. The flights are emissions-free up to a weight of 100 kilogrammes of freight, and use lightweight helium gas to provide lift. The airships use a combination of battery and solar power for propulsion and can travel up to 200 kilometres or fly for up to 12 hours in a single flight.

The airships can carry far more products than drones, and with that larger capacity, Cloudline is partnering with the World Food Programme in South Africa and Mozambique, medical supply companies in Kenya, and medical diagnostics services in Namibia. Users buy the delivery service, rather than the airships themselves, which allows Cloudline to maintain the aircrafts and technology and provide updates to operating systems as and when needed.

Pre-seed funding helped the company earn regulatory approval in South Africa, and continued development of the technology and service focuses on strengthening the end-to-end experience of users and expanding the range of commercial deployments.

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Takeaway:

The IEA lists innovation in hydrogen [fuel](#) as one of the main steps required in order to decarbonise the aviation industry. Every carbon-free flight contributes to a healthier environment, and as operations and capabilities expand, more industries will have green transport options to use. Additionally, data gathered from companies like Cloudline that are developing and proving the technology across large-scale deployments helps regulators and governments better support long-term, sustainable change.