



ZERO PETROLEUM TO PROVIDE FOSSIL-FREE SYNTHETIC FUEL TO POWER DRONAMICS LONG-RANGE CARGO DRONE

News / Business aviation, Manufacturer



Zero Petroleum will supply its revolutionary fossil-free fuel to the world's first licensed drone cargo airline, Dronamics, for testing with a view to commercial use in its long-range cargo drone. The partnership aims to support the creation of Dronamics' sustainable same-day delivery service for items such as e-commerce goods, perishable food, manufacturing parts and medical supplies. Zero Petroleum's ZERO SynAVGAS fuel will be used in Dronamics' 'Black Swan' drone to enable the company to deliver a carbon neutral operation. The drone, which can carry a 350 kg payload over distances of up to 2,500 km, is powered by a ROTAX propeller engine provided by CFS Aero products.

Dronamics recently became the first drone cargo company in the world to obtain a European drone airline license and is currently working with a consortium in the UK to build out a medical supply drone network for NHS Scotland.

Zero Petroleum Co-Founder and CEO Paddy Lowe said: "As a former Formula One engineer, I have spent my entire career working on cutting edge innovation so I am very excited for Zero Petroleum to partner with Dronamics and CFS Aero products on this potentially ground-breaking project. Operating an autonomous delivery network on this scale makes great sense but to carry these heavy payloads over such great distances would be impossible using electric power. Our fossil-free fuels, which have a carbon neutral lifecycle and can be produced in a factory on any site close to water and renewable power, are the ideal way to deliver this as a fully sustainable

alternative to the existing air freight solution.”

Dronamics Co-Founder and CEO Svilen Rangelov said: “Sustainability is a vital part of our plans and as the first drone cargo airline in the world we are delighted to have secured an agreement for Zero Petroleum to supply their fuel for Dronamics' future drone network. Not only is the fuel entirely sustainable and fossil-free, the modular manufacturing process has a small footprint so it fits perfectly into our future droneport plans, potentially enabling the fuel to be produced on site. We are very excited to work with the team at Zero Petroleum as we move towards commercial operations in the coming year.”

Dronamics' fixed-wing aircraft is 8m long with a 16m wingspan and can operate from unpaved runways as short as 400 metres. It can fly up to 22,000ft in altitude and at speeds up to 125mph and is designed to fill the critical missing middle mile in air freight, securing the provision of same-day deliveries to even the most remote areas of the world.

The use of Zero Petroleum fuels, rather than fossil fuels or even biofuels or fuel from waste, is key to the company's long-term sustainability plans. According to research, transporting cargo using kerosene-fuelled belly freight produces 755g CO2 emissions per tonne-km tank to wheels. In contrast, Dronamics' drones flown with synthetic fuel will operate in an entirely carbon neutral process.

ZERO SynAVGAS is a direct drop-in replacement for existing fossil-based fuel, delivering the same performance and range as existing products but entirely sustainably and fossil-free. It is manufactured by extracting hydrogen from water and capturing carbon from atmospheric carbon dioxide, a process that is entirely sustainable when using renewable energy sources such as wind or solar. When burned it emits exactly the same amount of carbon as is used in its production, creating a fully circular process.

The new partnership with Dronamics is the latest commercial link-up for Zero Petroleum and follows the signing of a contract in July to work with the Royal Air Force on the development of its fast jet aviation fuel. The British-based company completed a second round of funding in July and is in the process of setting up a new technical development facility to commence low volume production of its synthetic fuels in the coming months.

In collaboration with the RAF, the company secured the Guinness World Records® title 'First aircraft powered by synthetic fuel' in 2021 using ZERO SynAVGAS in a ROTAX-powered aircraft. Earlier this year, the company ran the first prototype of its ZERO Syn95 petrol in two supercars for a demonstration run on BBC's Top Gear, leading the presenting team to declare it a 'magic bullet' that heralds a 'bright new dawn' for the automotive industry. The same fuel was also used to power the Duke of Richmond's motorbike at the Goodwood Festival of Speed.

04 OCTOBER 2022

ARTICLE LINK:

<https://50skyshades.com/index.php/news/manufacturer/zero-petroleum-to-provide-fossil-free-synthetic-fuel-to-power-dronamics-long-range-cargo-drone>