

Emirates operates first ever A380 demonstration flight with SAF

-A Monitor Report

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Dubai: Emirates has become the world's first airline to operate an A380 demonstration flight using 100 per cent Sustainable Aviation Fuel (SAF). On November 22, the flight took off from Dubai International Airport (DXB) with one of four engines powered on 100 per cent SAF, demonstrating its potential as a drop-in replacement that matches jet fuel's technical and chemical requirements.

SAF can reduce carbon emissions by up to 85 per cent over the fuel's life cycle when compared to conventional jet fuel. SAF is currently capped at a 50 per cent blend limit in engines for commercial flights.

The flight carried four tonnes of SAF, comprised of HEFA-SPK provided by Neste (hydro processed esters and fatty acids synthetic paraffinic kerosene) and HDO-SAK from Virent (hydro deoxygenated synthetic aromatic kerosene).

The 100 per cent SAF was used in one Engine Alliance GP7200 engine, while conventional jet fuel was used in the other three engines. The PW980 auxiliary power unit (APU) from Pratt and Whitney Canada also ran on 100 per cent SAF.

Earlier in 2023, Emirates successfully completed the first 100 per cent SAF-powered demonstration flight in the region on a GE90-powered Boeing 777-300ER. In October, the first Emirates flights operating with SAF provided by Shell Aviation took off from Dubai International Airport (DXB).

The airline recently expanded its partnership with Neste for the supply of over 3 million gallons of blended SAF in 2024 and 2025 for flights departing from Amsterdam Schiphol and Singapore Changi airports.

Emirates currently uplifts SAF in Norway and France and the airline continues to seek opportunities to use SAF at various airports as supply becomes available.