



FIRST A319NEO FLIGHT WITH 100% SUSTAINABLE AVIATION FUEL

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Airbus, Dassault Aviation, ONERA, the French Ministry of Transports and Safran have launched the first in-flight study of a single-aisle aircraft running on unblended sustainable aviation fuel. During the flight test over the Toulouse region on 28 October, one CFM LEAP-1A engine of an Airbus A319neo test aircraft operated on 100% SAF. Initial results from the ground and flight tests are expected in 2022.

The unblended SAF is provided by Total Energies. It is made from Hydroprocessed Esters and Fatty Acids (HEFA), which primarily consists of used cooking oil, as well as other waste fats. HEFA is made of paraffinic hydrocarbons and is free of aromatics and sulfur. Approximately 57 tonnes of SAF will be used for the entire test campaign. It is produced in Normandy close to Le Havre, France. The 100% SAF will also be utilised for compatibility and engine operability studies on the Safran Helicopters Arrano engine used on the Airbus Helicopters H160, which are expected to start in 2022.

Airbus, in collaboration with DLR, is responsible for characterising and analysing the impact of 100% SAF on ground and in-flight emissions. Safran focuses on compatibility studies related to the fuel system and engine adaptation for commercial and helicopter

aircraft and their optimisation for various types of 100% SAF fuels. Safran will perform LEAP engine ground tests with 100% SAF at its Villaroche facilities later this year to complete analysis. ONERA is supporting Airbus and Safran in analysing the compatibility of the fuel with aircraft systems and will be in charge of preparing, analysing and interpreting test results for the impact of 100% SAF on emissions and contrail formation. Dassault Aviation is contributing to the material and equipment compatibility studies and verifying 100% SAF biocontamination susceptibility.

The study – known as VOLCAN (VOL avec Carburants Alternatifs Nouveaux) – contributes to global decarbonisation efforts currently underway across the entire aeronautical industry, and is benefiting from a financing of the France Relance recovery plan, the part thereof dedicated to the decarbonisation of aviation, which is implemented by DGAC under the supervision of Jean-Baptiste Djebbari, French Minister of Transports. The study's ultimate goal is to promote the large-scale deployment and use of SAF, and certification of 100% SAF for use in single-aisle commercial aircraft and the new generation of business jets.



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