













Joint Press Release

French aeronautical players to fly 100% alternative fuel on single-aisle aircraft end of 2021

Toulouse, Paris, 10 June 2021- Airbus, Safran, Dassault Aviation, ONERA and Ministry of Transport are jointly launching an in-flight study, at the end of 2021, to analyse the compatibility of unblended sustainable aviation fuel (SAF) with single-aisle aircraft and commercial aircraft engine and fuel systems, as well as with helicopter engines. This flight will be made with the support of the "Plan de relance aéronautique" (the French government's aviation recovery plan) managed by Jean Baptiste Djebbari, French Transport Minister.

Known as VOLCAN (*VOL avec Carburants Alternatifs Nouveaux*), this project is the first time that in-flight emissions will be measured using 100% SAF in a single-aisle aircraft.

Airbus is responsible for characterising and analysing the impact of 100% SAF on-ground and inflight emissions using an A320neo test aircraft powered by a CFM LEAP-1A engine¹. Safran will focus 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. ONERA will support 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. In addition, Dassault Aviation will contribute to the material and equipment compatibility studies and verify 100% SAF biocontamination susceptibility.

The various SAFs used for the VOLCAN project will be provided by TotalEnergies.

Moreover, this study will support efforts currently underway at Airbus and Safran to ensure the aviation sector is ready for the large-scale deployment and use of SAF as part of the wider initiative to decarbonise the industry. It will also contribute to the ultimate goal of achieving 100% SAF certification in single-aisle commercial aircraft and the new generation of business jets.

¹ The LEAP engine is a product of CFM International, a 50/50 joint company between GE Aviation and Safran Aircraft Engines















Joint Press Release

About Airbus

Airbus pioneers sustainable aerospace for a safe and united world. The Company constantly innovates to provide efficient and technologically-advanced solutions in aerospace, defence, and connected services. In commercial aircraft, Airbus offers modern and fuel-efficient airliners and associated services. Airbus is also a European leader in defence and security and one of the world's leading space businesses. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions and services worldwide.

Press contact:

Matthieu Duvelleroy - Tel.: +33 (0)6 29 43 15 64 - matthieu.duvelleroy@airbus.com

About the French Ministry of Transport

The general mission of the Ministry of Transport is to prepare and implement the government's policy in all areas related to transport but also to civil aviation. It also manages the State's road and motorway facilities. www.ecologie.gouv.fr/politiques/aviation-civile

Press contact:

Tel.: +33 (0)1 40 81 77 57 - secretariat.beyret@transports.gouv.fr

About Dassault Aviation

With over 10,000 military and civil aircraft (including 2,500 Falcons) delivered in more than 90 countries over the last century, Dassault Aviation has built up expertise recognized worldwide in the design, development, sale and support of all types of aircraft, ranging from the Rafale fighter, to the high-end Falcon family of business jets, military drones and space systems. In 2020, Dassault Aviation reported revenues of €5.5 billion. The company has 12,440 employees. www.dassault-aviation.com

Press contacts:

Stéphane Fort - Tel.: +33 (0)1 47 11 86 90 - stephane.fort@dassault-aviation.com Mathieu Durand - Tel.: +33 (0)1 47 11 85 88 - mathieu.durand@dassault-aviation.com

About ONERA

ONERA is the French national laboratory for aeronautics and space R&T, staffed by 2000 people. Under the supervision of the French Ministry of Armed Forces, ONERA has an annual budget of 234 million euros, of which more than half comes from commercial contracts. As the French expert in aerospace technologies, ONERA prepares tomorrow's defenses, meets the aerospace challenges of the future, and contributes to the competitiveness of the European aerospace industry. ONERA masters all the disciplines and technologies in its aerospace fields. All major civil and military aerospace programs in France and Europe contain "DNA" from ONERA: Ariane, Airbus, Falcon, Rafale, missiles, helicopters, engines, radars, etc.

Press contact:

Guillaume Belan - Tel.: +33 (0)1 80 38 68 54 / +33 (0)6 77 43 18 66 - guillaume.belan@onera.fr

About Safran

Safran is an international high-technology group, operating in the aviation (propulsion, equipment and interiors), defense and space markets. Its core purpose is to contribute to a safer, more sustainable world, where air transport is more environmentally friendly, comfortable and accessible. Safran has a global presence, with 79,000 employees and sales of 16.5 billion euros in 2020, and holds, alone or in partnership, world or regional leadership positions in its core markets. Safran undertakes research and development programs to maintain the environmental priorities of its R&T and Innovation roadmap. Safran is listed on the Euronext Paris stock exchange and is part of the CAC 40 and Euro Stoxx 50 indices.















Joint Press Release

For more information: www.safran-group.com / Follow @Safran on Twitterwww.safran-group.com / Follow

Press contacts:

Catherine Malek - +33 (0)1 40 60 80 28 - <u>catherine.malek@safrangroup.com</u> Isabelle Javary - + 33 (0)7 86 10 59 16 - <u>isabelle.javary@safrangroup.com</u>