First ground run of Tech TP turboprop demonstrator

18 June 2019, Le Bourget, International Paris Air Show

Safran Helicopter Engines has made the first ground run of its Tech TP, a turboprop technological demonstrator based on an Ardiden 3 turboshaft and developed as part of the EU Horizon 2020 research and innovation programme. The test took place at Safran Helicopter Engines' facility in Tarnos (France), on 12 June 2019. More than 20 European partners are contributing to this technological demonstrator.

The Tech TP aims are to validate the technologies required to develop a new-generation turboprop, featuring a compact, lightweight architecture and offering 15% lower fuel consumption and CO2 emissions than current engines. Tech TP would then form the basis for developing a turboprop derivative of the Ardiden 3, ready for integrating into future aircraft designs through leveraging the skills of European partners.
The Tech TP test campaign will validate the behavior of a complete propulsive system, integrating a gas generator, nacelle, air intake and propeller. It will also evaluate the case for more “electric” technologies, notably in the accessory gearbox and propeller controller components.

Didier Nicoud, Safran Helicopter Engines EVP Engineering said, “Supported by the European Commission, the Tech TP technological demonstrator relies on the skills and know-how of more than 20 European partners1, through the Clean Sky 2 framework. This first run is a very important milestone toward the validation of a new European turboprop engine, due to enter the market in the coming years and offering increased performance, competitive operating costs and low environmental footprint”.

"Congratulations to Safran and its many partners across Europe on this achievement to promote European cleaner aviation by substantially reducing CO2 emissions. We look forward to the promising next steps", said Axel Krein, Executive Director of Clean Sky 2 Joint Undertaking.

The Ardiden 3 is a new-generation turboshaft in the 1,700 to 2,000 shp power range. Two EASA-certified models, the Ardiden 3C and 3G, have completed over 10,000 hours of tests, confirming high levels of design maturity and competitive operating and maintenance costs. In addition, more than 250 Ardiden 1 engines are already in service, completing over 200,000 flying hours. The Ardiden 3 features a remarkably compact modular architecture, a best-in-class power-to-weight ratio and low cost-of-ownership.

Safran is an international high-technology group, operating in the aircraft propulsion and equipment, space and defense markets. Safran has a global presence, with more than 92,000 employees and sales of 21 billion euros in 2018. Safran is listed on the Euronext Paris stock exchange, and is part of the CAC 40 and Euro Stoxx 50 indices.

Safran Helicopter Engines is the world's leading manufacturer of helicopter engines, with more than 72,000 produced since being founded. It offers the widest range of helicopter turboshafts in the world and has more than 2,500 customers in 155 countries.

For more information: www.safran-group.com and www.safran-helicopter-engines.com / Follow @Safran and @SafranHCEngines on Twitter.

Clean Sky est une coopération entre la Commission européenne et les acteurs de l'industrie aéronautique européenne, appartenant au programme de recherche et d'innovation Horizon 2020. Elle vise au développement de technologies de pointe permettant une réduction des émissions de CO2 et NOx, et du niveau de bruit des aéronefs. Elle contribue également à renforcer la compétitivité et la souveraineté de l'Europe dans ce domaine. Le programme Clean Sky 2 fait l'objet d'un budget de 4 milliards d'euros sur 7 ans.

Pour plus d'informations: www.cleansky.eu / Suivez @cleansky_ju sur Twitter

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