

 **PRESS RELEASE**

Safran PPS®5000 plasma thruster chosen for new Galileo satellites

26 January 2022, Vernon (France)

Thales Alenia Space, one of the world's leading satellite manufacturers, has chosen the Safran Aircraft Engines PPS®5000 plasma thruster to power six satellites in the second-generation Galileo¹ global navigation satellite system (GNSS).

Safran Aircraft Engines will deliver the first PPS®5000 thrusters to Thales Alenia Space by the end of the first quarter of 2023 prior to a launch of the first Galileo satellites by the end of 2024 to perform commercial and military missions, and provide both civil and defense positioning services. According to this contract, Safran Aircraft Engines will deliver the first PPS®5000 thrusters. These new-generation plasma (electric) thrusters, rated at up to 5kW, are designed to handle all different phases in the satellite's life, from transfer to operational orbit until disposal to a "graveyard" orbit at the end of the mission.

Developed with support from the French and European space agencies, CNES and ESA, the PPS®5000 was fully qualified in June 2021 after logging more than 13,000 hours of full-power firing under vacuum conditions, corresponding to the over projected lifespan of these electric thrusters for a 15-year mission in geostationary orbit. In October 2021, the PPS®5000 performed its maiden flight by propelling the SYRACUSE IV mission, French military communications satellites supplied by Thales Alenia Space. The satellite will reach orbital position in 6 months relying on PPS®5000 multiple capacities.

"We are very honored by this new contract, which further strengthens our long-standing partnership with Thales Alenia Space, ESA and CNES, and also marks our participation in a key strategic program for European independence in space," said Olivier Ferrandon, Safran Aircraft Engines' Space Electric propulsion Director. "The PPS®5000 is purpose-designed for new-generation all-electric satellites. It provides a highly flexible propulsion solution to meet the diverse needs of satellite operators, thus optimizing our customers' operations."

Its robustness and enhanced reliability will improve system availability for all users. On the SYRACUSE IV mission, the PPS®5000 has already demonstrated 'on spec' performances to successfully operate the satellite.

A total of 88 PPS®5000 thrusters have been ordered to date by operators of all-electric satellites and 44 of these have been delivered.

¹ The Galileo contract is carried out "under a programme of and funded by the European Union" The views expressed in this Press Release can in no way be taken to reflect the official opinion of the European Union and/or ESA.

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 76,000 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 is listed on the Euronext Paris stock exchange, and is part of the CAC 40 and Euro Stoxx 50 indices.

Safran Aircraft Engines designs, produces, sells, alone or in partnership, commercial and military aircraft engines offering world-class performance, reliability and environmental-friendliness. Through CFM International*, Safran Aircraft Engines is the world's leading supplier of engines for short and medium-haul commercial jets.

* CFM is a 50/50 joint company between Safran Aircraft Engines and GE

Media Contact

Charles SORET : charles.soret@safrangroup.com / T +33 (0)6 31 60 96 79