PRESS RELEASE

Safran Secures Inertial Navigation Contracts for French Nuclear Deterrence

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Safran Electronics & Defense has been selected this year for three inertial navigation programs supporting France's strategic nuclear deterrence, equipping three main platforms with its HRG (Hemispherical Resonator Gyroscope) technology:

- Sub-Surface Ballistic Nuclear (SSBN): The Global Navigation System (SGN) for France's third-generation SSBNs will deliver unmatched performance, enabling extremely long periods of autonomous navigation without any need for GNSS recalibration. This autonomous capability is critical to the SSBN mission—operating underwater without satellite signals, the submarine must navigate discreetly and initialize M51 missile launches independently. This new system will succeed Safran Electronics & Defense's SGN-3EV, currently in service on Triomphant-class submarines.

- M51 Missile: Safran Electronics & Defense designs and manufactures the inertial navigation unit for current versions of the M51 missile. For the M51.4, which will equip the 2nd and 3rd generation of the SSBNs, the new CI4 inertial navigation unit will leverage HRG Dual Core technology to provide the missile with enhanced accuracy in a significantly more compact package.

- Rafale Fighter: The HRG Dual Core technology will also equip most combat aircraft starting from the fifth production batch, featuring the F4 standard. On the aircraft carrier Charles de Gaulle, the Safran Electronics & Defense's navigation system serves as a reference for aligning the Rafale's navigation systems at sea before each mission.

Developed and manufactured in France, the HRG is a high-precision sensor considered as the most advanced inertial sensor in the world. Safran Electronics & Defense invested €120 million this year in its capabilities in France, which currently produces 10,000 HRGs per year and will produce 30,000 units by 2032.

This new achievement extends Safran Electronics & Defense's more than fifty-year commitment to supporting France's nuclear deterrence. This commitment was demonstrated once again on October 6: off the coast of Brittany, France, in the presence of the President of the French Republic, the nuclear submarine Le Vigilant successfully launched an M51.3 missile. This test was carried out to validate the operational capability of the ballistic missile submarine after its periodic maintenance and overhaul (IPER). Several of Safran Electronics & Defense's resilient PNT (Positioning, Navigation and Timing) systems contributed to this success.

On board, the SGN-3EV navigation system and the new BELUGA high-precision clock provided the exact position and time. Inside the missile, the inertial navigation unit ensured extremely accurate guidance. As part of the test operation, the ICARE radar transponders and RGNSS receiver tracked the missile throughout its trajectory from the test center.

"We are particularly proud of the renewed trust shown by the DGA since 1972 in Safran's navigation and timing solutions. We owe our ability to meet the highest standards and deliver the best possible performance to our teams and our 58 industrial and technological sites, rooted in local regions as well as internationally, which contribute every day to the sovereignty of France and its allies", said Franck Saudo, President of Safran Electronics & Defense.

***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 more than 110,000 employees and revenue of 31.3 billion euros in 2025, and holds, alone or in partnership, global 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 roadmaps. Safran is listed on the Euronext Paris stock exchange and is part of the CAC 40 and Euro Stoxx 50 indices.*

***Safran Electronics & Defense** is a high-technology industrial company operating in the aerospace, defense, and space sectors. For over 100 years, the company has been designing, developing, and manufacturing equipment and services for both civil and military clients - on land, at sea, in the air and in space. A leader in its markets, Safran Electronics & Defense offers cutting-edge solutions in avionics, critical electronics, optronics, inertial navigation, precise timing, guidance, actuation, flight controls, satellite engines, and artificial intelligence for industry and defense. Our 19,000 employees across five continents are proud to support their customers, States and their armed forces, in strengthening their autonomy and sovereignty, and to contribute to the safety of air transport passengers.*

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