Safran's contribution to the Rafale fighter

Just two months after Egypt’s acquisition of 24 Rafale multirole fighters, Qatar has announced its own order for 24 Rafales, to be deployed by its air force. In April, India’s Prime Minister Narendra Modi had announced the country’s intention of ordering 36 of these fighters. This string of export successes provides a timely opportunity to review Safran’s contributions to the Rafale.

Safran’s companies supply a number of key systems and equipment for the Rafale, the “omnirole” fighter designed and built by Dassault Aviation, making a major contribution to its performance, efficiency and reliability.

Snecma designed, developed and produces the M88 engines that power this twin-engine fighter, available in both air force and naval versions. The M88 features state-of-the-art technologies, including compressor “blisks” (integrally-bladed disks), single-crystal high-pressure turbine blades, powder metallurgy disks, ceramic coatings, composite parts from Aircelle and nozzles made using thermostructural composites from Herakles. Hispano-Suiza designed, developed and produces the power transmission system and accessory gearbox, while Sagem provides the full authority digital engine controls (FADEC).

Messier-Bugatti-Dowty supplies the landing gear, wheels and carbon brakes, all braking, steering and landing gear extension-retraction systems, and hydraulic generation equipment. All wiring is produced by Labinal Power Systems. The Rafale is fitted with ejection seats from SEMMB (a 50/50 joint subsidiary between Safran and the British company Martin Baker Aircraft). Sagem supplies the laser gyro inertial navigation system and gyros for the fly-by-wire flight control system. As part of the Rafale’s weapon suite, Sagem also offers the AASM Hammer, a modular air-to-ground guided weapon.