



P160C FIRES UP SUCCESSFULLY, A NEW CHAPTER FOR ARIANE 6 AND VEGA LAUNCHERS

- The hot-fire test of the P160C, an upgrade of the P120C motor currently fitted to European launchers Ariane 6 and Vega-C, was run successfully by CNES at the European Spaceport in French Guiana.
- The P160C is one of the world's largest carbon-fiber one-piece solid fuel booster. It contains 157 tons of propellant. The P160C development programme is managed and funded by the European Space Agency.
- This new motor has an increased capacity of solid propellant compared to current Ariane 6 and Vega-C and thus increases launcher performance significantly.
- The new P160C motor is a shared building block to the two European launchers and will be installed as Ariane 6 boosters, as well as Vega-C and Vega-E first stages.

Colleferro (Rome), April 24th, 2025 - The P160C qualification motor was successfully tested on 24 April at the European Spaceport in French Guiana, on the solid-propellant booster test stand (BEAP) operated by the French Space Agency (CNES). The successful test firing of the first P160C motor is a major milestone in the development of the future upgrades of Europe's Ariane 6 and Vega launchers.

The P160C is an upgrade of the P120C motor developed jointly by ArianeGroup and Avio through their 50/50 joint-venture Europropulsion, and is one of the world's largest carbon-fiber one-piece solid-propellant rocket motors. The development programme is managed and funded by the European Space Agency.

The new motor is one meter longer than the P120C and carries over 14 tonnes more solid fuel, increasing considerably Ariane 6 and Vega performance, their payload capacity and their competitiveness.

The extended design of P160C included making the motor one meter longer without affecting the connection interfaces to the Ariane 6 launcher's central core. These development efforts go hand in hand with upgrades to industrial production at ArianeGroup, Avio and their partners, alongside the ongoing production and ramp-up of the P120C motor for upcoming Ariane 6 and Vega-C launches.

The P160C has three main components. The first is the composite structure, manufactured by Avio in Colleferro, near Rome in Italy, obtained by filament winding and automated layup of carbon/epoxy pre-pregs fibers. The second is the nozzle manufactured by ArianeGroup on its Le Haillan site near Bordeaux in France, and made up of composites materials,

enabling the extremely hot gases (3000°C) generated by the motor to be ejected at very high speed, thus providing thrust. The nozzle is gimballed to control the flight of the launcher. Propellant loading and final motor integration are carried out by Avio and ArianeGroup joint subsidiaries in French Guiana (Regulus and Europropulsion respectively).

The third element of P160C is the carbon-fibre composite aluminum igniter that ensures proper ignition of the motor. They are manufactured by Nammo in Raufoss, Norway, under Avio responsibility.

This P160C motor qualification test comes barely 4 years after qualification of the P120C motor currently fitted to the Ariane 6 and Vega-C launchers, and after their first commercial flights.

Avio is a leading international group engaged in the design, development, and operations of space launch systems as well as solid, liquid and cryogenic propulsion systems for civil and military applications. The experience and know-how built up over more than 50 years puts Avio at the cutting-edge of the space launch sector and defense programs. Avio is present in Italy, France, United States and French Guyana, employing approximately 1,500 highly qualified personnel. Avio is the Launch Service Provider for the Vega launcher and a sub-contractor for the Ariane program, placing Italy among the limited number of countries capable of designing, producing, and operating a complete space launch system.

For further information

Media Relations contacts:

francesco.delorenzo@avio.com

Investor Relations contacts:

alessandro.agosti@avio.com

nevio.quattrin@avio.com