

Leonardo announces the first satellite-controlled European MALE-class drone flight

- **A flight campaign saw Leonardo's innovative, proprietary satellite-based solution used to operate Piaggio Aerospace's P.1HH HammerHead drone, demonstrating the ability to control unmanned platforms beyond the range of ground-based radio coverage**
- **The drone's ground station linked up with the Athena-Fidus satellite, which is managed by Telespazio's Fucino Space Centre, to operate the aircraft, its onboard systems and its sensors. The satellite link was also used to receive the data acquired in-flight**
- **Leonardo is a key player in the development of drone-based capabilities, products, and services. The Company is involved in all of the main national and international initiatives seeking to standardise and regulate the sector**

Rome, 23 May 2018 – The first flight campaign to demonstrate satellite control of a European-built MALE-class (Medium Altitude Long Endurance) drone has been completed successfully. A team comprising Telespazio (Leonardo 67%, Thales 33%) and Piaggio Aerospace carried out the activity using a remotely-piloted P.1HH HammerHead aircraft as the test bed, developing and integrating capabilities that will enable drones to safely fly in unsegregated air space, beyond the range of ground-based radio coverage (called BRLOS - Beyond Radio Line Of Sight).

The campaign was carried out at Birgi airport in Trapani, Italy in order to evaluate the efficacy of the satellite technology for various dual-use applications under realistic conditions. The flights are in line with the objectives of the DeSIRE II European research project, led by Telespazio and jointly initiated by the European Space Agency (ESA) and European Defence Agency (EDA).

DeSIRE II (<https://business.esa.int/projects/desire-ii>) will support European standardisation and regulatory activities in the drone sector.

Telespazio, a subsidiary of Leonardo and a leader in Space services, has developed a two-way satellite communication network which was used during the flight campaign. Control data from the ground station was transmitted to remotely operate the P.1HH and its on-board sensors and systems, while data collected by the drone during flight was returned to the ground station via the same network. The system made use of the Athena-Fidus satellite resources, managed by Telespazio's Fucino Space Centre.

The success of this set of trials reinforces Leonardo's position as a key player in the development of drone-based capabilities, products, and services, with this campaign proving the Company's ability to support flights of unmanned systems in BRLOS mode. The activities also represent a step towards a future where remotely-piloted aircraft are used to support public services, such as environmental monitoring, surveillance, and emergency management.