

Leonardo's submarine-hunting acoustic system passes sea trials with flying colours

- **Leonardo's ULISSES system was used to automatically locate a number of simulated submarines in a live trials exercise**
- **Ultra Electronics provides the software capability for the ULISSES system to provide accurate target location from up to 64 sonobuoys and/or dipping sonars. In the trial, Ultra Electronics provided the sonobuoys to demonstrate this capability**
- **The successful trials mean that development is on-track to finish this year, with production starting in 2020**

Rome, 14 November 2019 - **Leonardo has proven the submarine-hunting capabilities of its new ULISSES acoustic sensor system** in a live sea trial off the coast of Italy, meaning that development is on track for completion by the end of 2019. Production will now take place in 2020 for deliveries the same year and Leonardo is in talks with a number of potential domestic and international customers.

ULISSES (Ultra-Light SonicS Enhanced System) is an integrated acoustic sensor system designed to 'listen' for hostile submarines and determine their locations. Uniquely in the market, ULISSES incorporates 'multistatic' functionality, where the processor collects and exploits data from up to 64 distributed sonobuoys or dipping sonar sensors, which are processed in parallel. It then uses the multiple sources of information to triangulate the location of potentially hostile vessels. Leonardo announced the development of the acoustic system, in partnership with Ultra Electronics (providing miniaturised sonobuoys and multistatic technology) and L3 Technologies (providing dipping sonar), at the 2018 Farnborough Air Show. The system is now available to order.

The recent sea trials proved the benefits of ULISSES multistatic capabilities in a realistic naval environment. They began with Leonardo deploying various types of Ultra Electronics supplied sonobuoys, including some with GPS, from a ship. The ULISSES processor was then used to quickly and accurately locate a number of simulated under-sea targets, automatically marking their coordinates on a map on the operator's workstation. The success of the trials means that development of the system is on track to wrap up by the end of December, with production ready to start next year.

Since its launch last year, ULISSES has generated interest due to its light weight (< 20 kg including its processor, transmitter, receiver and recorder), which makes it suitable for even very small unmanned aircraft and helicopters. ULISSES is also ideal for the retrofit market, where it can be affordably installed in place of an existing sonics system, reducing the overall weight. Other advantages include the ability to draw on a range of sensor inputs including GPS-enabled sonobuoys, active and passive sonobuoys and dipping sonar. Designed for ease of use and reduced operator workload, ULISSES can provide automatic tracking and alerts, provide video up to full HD quality and can control sonobuoys remotely using CFS (Command Function System) commands.

Leonardo, a global high-technology company, is among the top ten world players in Aerospace, Defence and Security and Italy's main industrial company. Organized into five business divisions, Leonardo has a significant industrial presence in Italy, the United Kingdom, Poland and the USA, where it also operates through subsidiaries such as Leonardo DRS (defense electronics), and joint ventures and partnerships: ATR, MBDA, Telespazio, Thales Alenia Space and Avio. Leonardo competes in the most important international markets by leveraging its areas of technological and product leadership (Helicopters, Aircraft, Aerostructures, Electronics, Cyber Security and Space). Listed on the Milan Stock Exchange (LDO), in 2018 Leonardo recorded consolidated revenues of €12.2 billion and invested €1.4 billion in Research and Development. The Group has been part of the Dow Jones Sustainability Index (DJSI) since 2010 and became Industry leader of Aerospace & Defence sector of DJSI in 2019.