

European Unmanned Maritime Surveillance Testing Set to Begin This Summer

Defense-Aerospace



The AR5 Life Ray unmanned air system, which has been selected for the first European demonstration of a drone-based maritime surveillance system, is fitted with both synthetic aperture radar and a satellite link. (Tekever photo)

NEW ORLEANS, LA. - The AR5 Life Ray UAS, developed by Tekever, has been selected by the European Space Agency (ESA) and the European Maritime Safety Agency (EMSA) to demonstrate the first European maritime surveillance system where drones are integral to operations. The first demonstration will be performed this summer over the Maltese waters of the Mediterranean Sea, said Pedro Sinogas, Tekever CEO, at the AUVSI Xponential show in New Orleans, Louisiana, USA.

Maritime operations have been brought into focus in Europe by the unprecedented migrant crisis. As part of the response to this crisis the EU border patrol agency FRONTEX has recently announced that it is in the planning phase of adding remotely piloted aircraft to its existing portfolio of satellite and sensor technologies for monitoring vessel traffic and migrant flows.

During the demonstration in Malta, Tekever's systems will be deployed from land and will perform operations across a range of maritime scenarios during the 4-6 weeks of testing", added Pedro Sinogas.

This project is demonstrating the benefits of deploying unmanned aircraft in the dual roles of pollution monitoring and search and rescue. The project has developed the business case to deploy unmanned aircraft to augment, or even replace, existing assets such as satellites, manned aircraft and ships.

Tekever is working with maritime authorities from across the EU, coordinated with EMSA and will demonstrate operations in the Atlantic Ocean, the North Sea and the Mediterranean Sea across a wide range of environmental conditions.

The AR5 Life Ray UAS platform is a mature system, in the market since being presented at Farnborough in 2014. AR5 was conceived to be a system capable of delivering the endurance and payload of a larger system in a compact and flexible package. The RAPSODY programme has seen this system be prepared for maritime missions, while maintaining a small logistics footprint.

With a wingspan of 4.3 meters and a payload of 50 kg, AR5 delivers performance of 8 to 12 hours missions. Typically, systems in this class don't offer Satellite Communications or on-board SAR. By delivering these capabilities the AR5 Life Ray UAS delivers unprecedented flexibility for maritime missions.

"Tekever is now working with specialist sensor manufacturers to increase the capability of the system as new technologies mature, offering increased capability for our customers. We are working to allow AR5 to operate from onboard a ship in the future, delivering a capability organic to the vessels existing tasks. There is also a planned increased wingspan AR5 variant, with increased endurance and payload to match, while remaining within the existing logistics footprint", added Pedro Sinogas, Tekever CEO.

Tekever owns the entire technology stack within the AR5 Life Ray platform, allowing combined sensor modalities, data fusion and intelligent on board algorithms. This automates functionality and creates an excellent tool to support maritime missions.

The Tekever Group develops innovative technologies for the Enterprise, Aerospace, Defense and Security Markets. Tekever is based in Lisbon, Portugal, and currently has subsidiaries in Europe, Asia, South and North America focused on developing innovative technology, creating and distributing products, supporting partners and servicing customers around the world.