



## MAURIC and ECA Group unveil OCTOPODA: a new range of motherships for mine warfare carrying unmanned systems

To meet the increasing demand from navies and other professional maritime operators, in 2016 ECA Group and MAURIC joined forces to combine their respective areas of expertise, and have developed an innovative product range enabling drones and robots to be integrated on board naval vessels.

This is how OCTOPODA came to see the light of day; a range of ships with specifications similar to those of patrol boats or OPVs, but specifically adapted for mine clearance missions at sea using drones and robots systems.

### OCTOPODA integrates the UMIS™ unmanned system

For these developments, ECA Group and [MAURIC](#) defined typical configurations for unmanned systems dedicated to mine warfare, based on the different components of ECA Group's [UMIS™](#) system. This is a complete system of different drones that can collaborate within the same mission to carry out each step of a mine clearance mission: detection, identification and destruction. Each robot has a different role to play in the zone to be secured. They are deployed and controlled by a small team of operators on the OCTOPODA vessel, which remains in a secure zone.

OCTOPODA operates outside the minefield, so that it does not have to comply with demanding specifications relating to acoustic and electromagnetic signature, and shock resistance. Inspired by MAURIC's patrol boat and OPV range, OCTOPODA vessels are based on sea-proven hulls, with ideal seaworthiness characteristics for launching and recovering [USV](#) surface drones, [UAV](#) aerial drones, underwater autonomous [AUVs](#) and remotely operated [ROVs](#).





The first results of this work are two vessels: the 30 m OCTOPODA 300, and the 50 m OCTOPODA 500.

To design the first vessels in the OCTOPODA range, MAURIC's naval architects focused specifically on two fundamental aspects concerning integration of naval unmanned: the integration of launch and recovery systems that are effective even in high sea states, and the ergonomics of the drone deployment zones on board the vessel. So the OCTOPODA vessels have been designed around these zones (aft deck, drone storage and maintenance hangar, drone system control centre).

---

*"The vocation of ECA Group is not to build ships. We are not a shipyard, we are in partnership with shipbuilders when a project arises.*

*On the other hand, thanks to MAURIC and the new OCTOPODA range, we illustrate to our customers how our range of unmanned systems fits into different types and sizes of vessels. At each mission, a suitable UMIS™ system and a ship size to integrate it.*

*Over the months, this OCTOPODA range will be extended to other types of missions for UMIS™ systems", says Guénaél Guillerme, CEO of ECA Group.*

---

## **OCTOPODA 300 – A comprehensive and compact solution for robotised mine clearance**

The OCTOPODA 300 makes it possible to deploy a naval unmanned system from a vessel that is just 30 metres in length. The system consists of two [A9-M](#) AUVs, identification robots and destruction MIDS (Mine Identification and Destruction System) consisting of 2 [SEASCANs](#) and 6 [K-STER Cs](#). These underwater robots can be deployed from OCTOPODA 300 or a 7m Rhib nested in an aft ramp.

The OCTOPODA 300 also comprises a small landing platform making it possible to deploy a [IT 180 UAV](#) lightweight drone. The design incorporates a specific hangar with direct access to the aft deck and a control centre with a bird's eye view of the deployment zone, the objectives of which are to simplify handling of the robots and optimise operability of the entire UMIS™ system.

## OCTOPODA 500 – Mine clearance in the high seas with a drone system that is operational in heavy seas

For navies wishing to deploy a more sophisticated configuration of the UMIS™ system, MAURIC has developed a 50 m vessel, the OCTOPODA 500, making it possible to launch and recover a 12 metre INSPECTOR 120 USV from an aft ramp. By adding this USV it is possible to deploy AUVs (two A9-Ms, two SEASCANs and ten K-STER Cs) in autonomous mode, and therefore penetrate further into the minefield. The UAV landing platform is larger and therefore makes it possible to land the IT 180 in more difficult sea states.

With the development of the OCTOPODA range, MAURIC and ECA Group are proposing completely integrated solutions comprising motherships and [UMIS™](#) systems dedicated to mine warfare. MAURIC thereby demonstrates its capacity to integrate any type of naval drone (underwater, surface or air); today for mine warfare, but tomorrow for other missions such as surveillance, bathymetry, search and rescue, surveys for offshore industries or scientific missions.

The OCTOPODA 300 and OCTOPODA 500 will be on show at the ECA Group stand at the [EURONAVAL trade fair](#) taking place in Paris Le Bourget from 23 to 26 October 2018.





### About MAURIC – Naval architects for 50 years

MAURIC has been designing patrol boats, OPVs and military vessels for more than 50 years. As an independent naval architecture firm, MAURIC offers Sea-Proven custom solutions to many navies and other public sector organisations operating at sea.

MAURIC initially specialised in fast vessels, developed world-renowned know-how for design of fast patrol boats and interceptor vessels. Over the last 10 years, MAURIC has developed with naval shipyards partners a whole range of offshore patrol vessels capable of deploying fast craft for protection and interception missions. This is the case for the two 53.5 m RDS, CASTOR and POLLUX designed for the Belgian Navy in 2014 and 2015, and more recently the three 61 m light patrol vessels for French Guyana (PLG) for the French Navy. To design these vessels, MAURIC made use of its recognised expertise in the field of hull design, to obtain exceptional nautical performance, in particular seakeeping at patrol speeds. This makes it possible to deploy fast craft via the aft ramp or by davit.

In addition to this know-how for integrating craft on board naval vessels, MAURIC has become an expert in integrating complex naval systems, such as weapons systems, communications systems or sensors for its survey vessels and scientific vessels.



## About ECA Group – specialised in air-borne, naval and land-based drones

ECA Group has been an expert in deploying robots at sea for mine clearance, rescue and research missions for more than 60 years. ECA Group has always been at the technological forefront ever since it was founded in 1936, constantly innovating and supporting its customers in their projects aiming to secure ports, coastal areas and shipping channels, while keeping crews out of the zones at risk.

ECA Group specialises in robotised mine warfare. It first entered the field in the early 70s together with Naval Group by developing the first Mine Identification and Destruction System (MIDS), the [PAP](#) (Poisson Auto Propulsé - self-propelling wire-guided ROV) several hundred of which have been sold around the world. Thirty years later, the PAP is still being used on board the French Navy's minesweepers.

Other MIDS systems were developed over the years, such as the [SEASCAN](#) and [K-STER C](#). ECA Group has also developed a comprehensive range of AUVs (autonomous underwater vehicles): the [A9](#) (light and easy to deploy from small craft), the [A18](#) (compact, modular, carrying SAS sonars that deliver the best performance on the market), as well as the [A27](#) (high endurance and sensor payload capacity) which the French and British Navies chose for their MMCM mine clearance programme. The airborne IT 180 [UAV](#) drones provide back-up, capable of inspecting the environment around the vessel, measuring its magnetic signature and acting as a relay radio for the mother ship. As for surface drones, or [USVs](#), the ECA Group developed the first drone in the [INSPECTOR](#) range 10 years ago for the DGA. Since then, two other types of USV has been devised: the [INSPECTOR 90](#) which has been sold to two navies, and the [INSPECTOR 120](#) which was designed in collaboration with MAURIC. All the ECA Group drones are interoperable. They can cooperate together within a single mission and share the same technological building blocks, whether this is for their systems enabling launch and recovery from vessels, or the software for mission management and planning, as well as data centralisation and processing. They are brought together in a single system: UMIS™.



### ECA Group and MAURIC – experts in integration of naval drone systems

MAURIC brings the know-how required to design systems that enable optimal integration into vessels, especially as far as it concerns launch and recovery of robots (USV, AUV, ROV, UAV) in heavy seas. In addition, thanks to its expertise as an integrator of specific systems on board vessels, MAURIC provides the interface for integrating ECA Group naval drones into its customers' vessels. This contribution from MAURIC is absolutely vital for customers, because it ensures they have a robotised system fully integrated into their vessels.

Follow us:

<https://www.ecagroup.com/en/news-stories>

&



#### The ECA Group

Recognized for its expertise in robotics, automation systems, simulation and industrial processes, the ECA Group has been developing complete, innovative technological solutions for complex missions in hostile and confined environments since 1936. Its product offering is designed for an international client base that is demanding, both in terms of safety and effectiveness. The Group's main markets are in the defence, maritime, aeronautics, simulation, industrial and energy sectors.

The ECA Group is a Groupe Gorgé company.

#### ECA Group

Meliha BOUCHER  
Corporate PR & Marketing  
Manager  
Tel: +33 (0)6 99 31 45 29  
boucher.m@ecagroup.com