

Inspector MK2 Links Unmanned Systems



ECA Group has extended the capabilities of its unmanned surface vehicle (USV) Inspector MK2 to provide faster data transfer and docking linked to other unmanned systems such as USVs, ROVs and AUVs. Premium equipment has been selected and tested in real user conditions to complete and qualify ECA Group's radio communication solutions for its USV range.

Featuring this new capability, the unmanned surface vehicle Inspector can be used as an intelligent docking system for underwater drones systems such as AUVs or ROVs, allowing them to be automatically deployed and recovered: it enables recharging and data download, as well as fast transits.

Fitted with acoustic modem and short baselines for underwater communications and positioning, the USV allows underwater inspection and intervention to be supervised by an operator based on a safe spot.

The unmanned surface vehicles equipped with down-looking sonar are suitable platforms for detection of in volume mines as well as obstacles (such as nets) for safe AUV navigation.

These communication solutions for USV Inspector meet requirements such as:

- Adaptation/reconfiguration to the customer/mission characteristics
 - Compatibility with a multitude of antennas (directivity, gain),
 - Online reconfiguration according to Quality of Service
 - Latency vs. data rate real time mitigation
- Large frequency spectrum : from Ultra high frequency (UHF) to Supra High Frequency (SHF)
- Variety of possible communication architectures (See below: ECA Unmanned Maritime Vehicle Interoperability):
 - Point To Point (PTP),
 - Point To Multi Point (PTMP)
 - Multi Point Interconnection [MESH] 1
- Comply with main standards :
 - NATO,
 - National,
 - Civilian : Industrial Scientific and Medical band (ISM)
- Fulfill cybersecurity requirements