



# ALISTAR 3000

## Engineering Inspection AUV



### **Reduced operation time**

- Advanced hydrodynamic shape enabling high inspection speed
- Untethered vehicle enabling independent motion of the vehicle from the support vessel (increased weather windows)

### **Reduced support vessel requirements**

- Autonomous operation liberates the support vessel to carry out parallel tasks
- Light overall spread (no TMS, no winch, no umbilical)
- No medium voltage requirement (vehicle powered by secondary batteries)
- Reduced personnel requirements & associated logistics (no pilot over 24h operation)

### **Technical advantages compared to existing AUVs**

- High stability increasing acoustic sensors detection performance and reducing power consumption to stabilize the vehicle
- Hovering capacity thanks to its thruster architecture (4 horizontal, 2 vertical & 2 lateral)
- Easy deployment overseas (only two 20 feet containers)
- User friendly Mission Management System for mission planning, simulation, monitoring and replay
- Open and flexible architecture enabling easy adaption to various missions & payloads

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### TYPICAL MISSIONS & PAYLOADS

#### Construction support

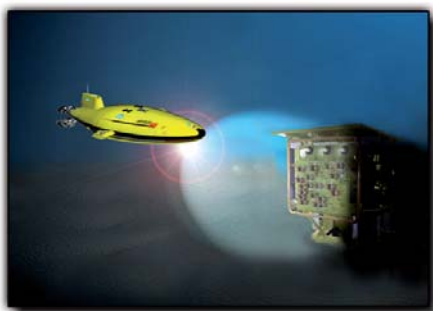
During the operation of pipelaying, ALISTAR 3000 can be pre-programmed to achieve the tasks of Pre-lay-survey, Touch Down Monitoring and Post-lay survey.

Whatever the technique of lay-down, ALISTAR can be deployed either from the lay barge or from the survey vessel, and can perform the various tasks at any time without preliminary retrieval.

#### Field survey & inspection

As-Built survey or routine inspection of offshore oil fields can be performed by pre-programming ALISTAR to fly close to equipment such as risers, mooring, lines, flowlines, etc...

Video and sonar data are recorded whilst performing the mission and can then be visualised once the vehicle retrieved. During the mission, data can also be transferred to surface using an acoustic communication link.



### TECHNICAL CHARACTERISTICS

#### Main characteristics

- Operating depth : 0 to 3000 m
- Dimensions : L x H x W = 5000 x 1450 x 1680 mm
- Weight in air : 2300 kg (payload included)
- Cruise speed : 2 Knots
- Maximum speed : over 4 Knots
- Minimum speed : 0 Knots - hovering capability
- Operational endurance : 20 hours
- Payload : 150 kg

#### Positioning & communication

- Two-way Radio Frequency (RF) link
- GPS/DGPS receiver
- Acoustic localisation transponder
- Acoustic modem (1 two-way secured link + 1 one-way high speed link)

#### Navigation sensors

- Inertial Navigation System (INS) & Kalman Filter
- Doppler Velocity Log (DVL)
- High accuracy depth sensor
- Altimeter
- Obstacle Avoidance Sonar (OAS)

#### Primary payload sensors

- Side Scan Sonar (SSS)
- Multibeam echosounder
- Sub-Bottom Profiler (SBP)
- Camera + searchlight
- CTD or Sound Velocity Probe (SVP)
- Profiler

#### Safety features

- Safety weight
- Safety pinger
- Flasher
- Radio beacon
- Water ingress sensor

**HALIODSTAR Project**



*This project has been cofinanced by the European Community*



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