

ADVANCE MARITIME SECURITY WITH UNMANNED TECHNOLOGY

What's Unmanned Technology?

Unmanned technology enables vessels to be operated autonomously

Unmanned Surface Vessels (USVs) are deployed to conduct dull, dirty or dangerous tasks which may pose high risks to humans



1 First developed for mine counter measures applications

- Mine Disposal System (USV with mine disposal payloads)
- Towed Sonar (USV with tow sonar payloads)



Evolution of Our Unmanned Technology

How Does It Contribute to Maritime Security?

Eliminates risks by:

- Tackling conflict and dangerous areas such as rescue efforts on oil tankers which are in danger of explosion



- Enabling patrolling to be conducted in harsh conditions (low light, rain, roughwaters, extreme heat)



Automation of mundane tasks by:

- Facilitating prolonged durations of monitoring and enforcement in areas where required



2 Adopted for commercial, public safety and security applications



Fire-fighting



Marine Debris Removal

Where Can It Be Applied?

Harbour Security

Real time video pipe-back with AI-enabled data analytics

Illegal Fishing Enforcement

Enables improved monitoring, anomaly and threat detection

Search & Rescue Missions

Storage & Offloading of Oil & Gas

3 Advanced with AUTONOMAST[®]; a modular product for autonomous navigation

- Ability to use autonomous technology on different sizes of boats



FEATURES

Autonomous Electronics & Sensors

- GPS/AIS/INS; 360 degree all round vision camera



Navigational Intelligence System

- Guidance & Control System



Shore Control

- Mission planning; immediate man-take-over control of vessel



Communications

- supports commercial LOS comms



BENEFITS



Support 24/7 operations



Automatic object detection & localisation



24 hours endurance



Precise execution of search patterns with no gaps

AUTONOMAST (Illustration)