MOBtronic™

AUTOMATIC MAN-OVERBOARD DETECTION & RESCUE SUPPORT

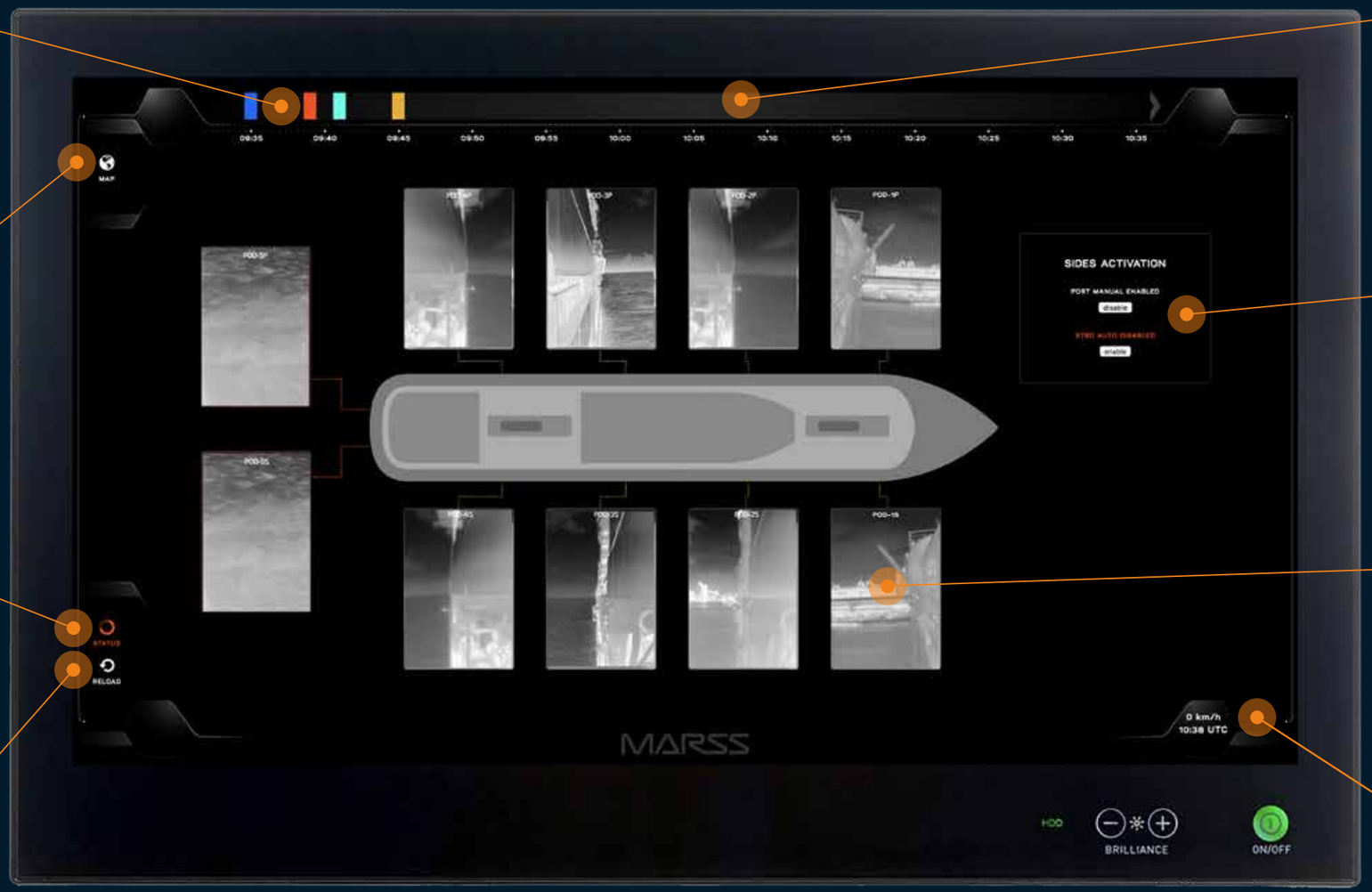
MARSS
EXTRASENSORY PROTECTION

AUTOMATED MAN-OVERBOARD DETECTION

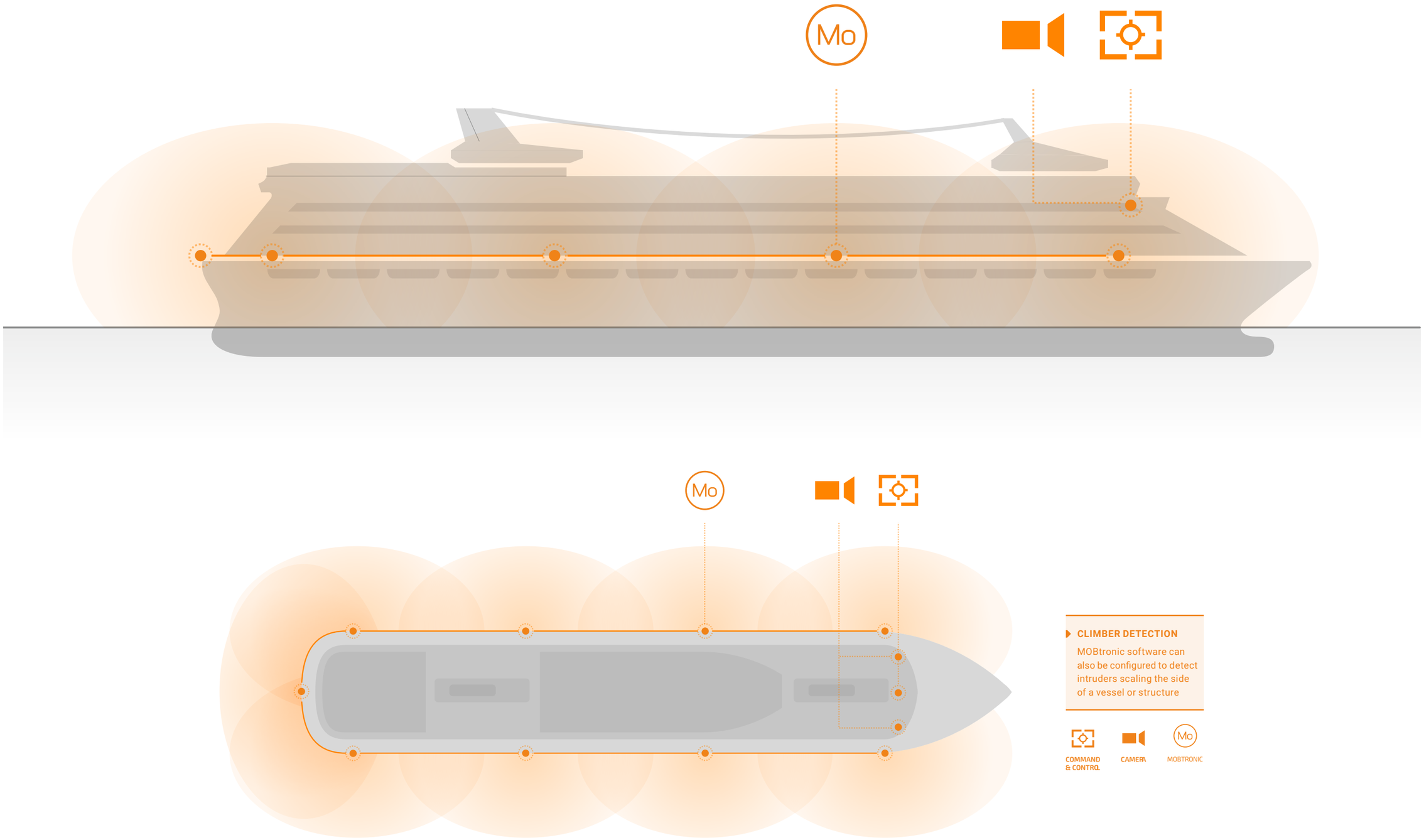
MOBtronic is an intelligent man-overboard detection and rescue support system that features a patented configuration of sensors to reliably detect a human falling overboard a vessel, instantly alerting the crew.

MOBtronic has been extensively trialled over 6 years in harsh marine environments with over 7,000 test jumps. The system is compliant with the current recommendations of the ISO PAS draft with a proven probability of detection in excess of 95% and false alarm rates of less than 0.3 a day.

The intuitive MOBtronic command and control interface automatically presents clear radar and video evidence for immediate identification and verification by the crew, while tracking of the victim at sea supports rapid response.



SYSTEM INTEGRATION



CLIMBER DETECTION

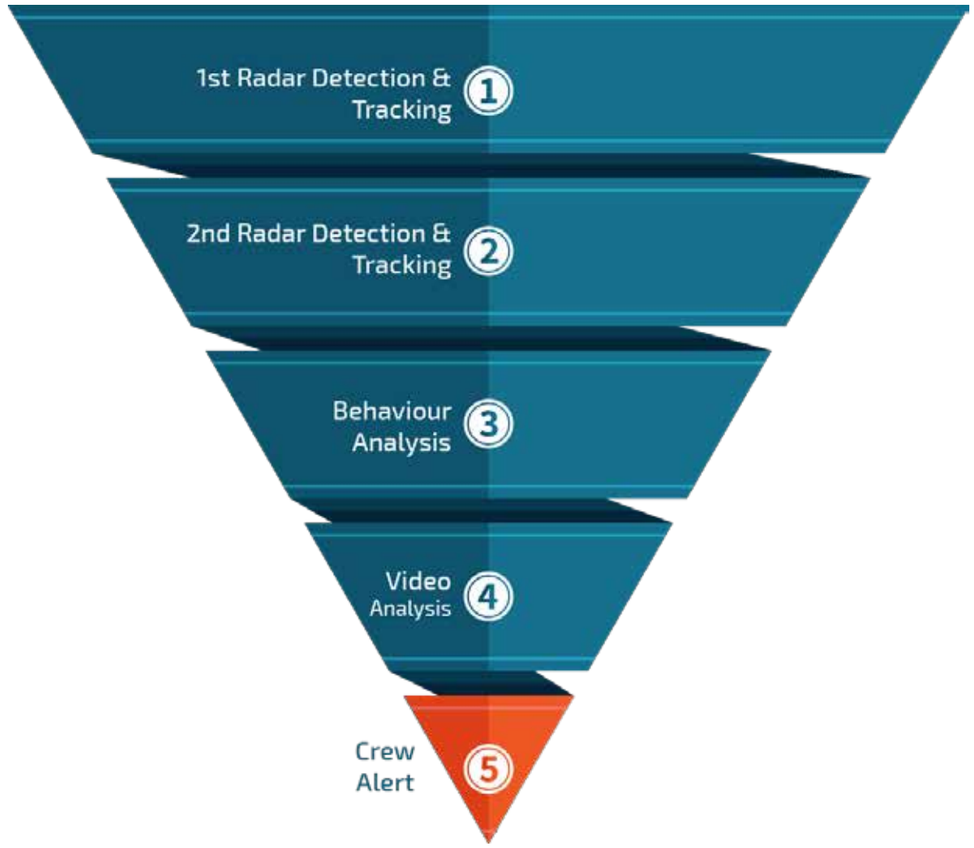
MOBtronic software can also be configured to detect intruders scaling the side of a vessel or structure

COMMAND & CONTROL
CAMERA
MOBTRONIC

SYSTEM CAPABILITY

- 45,000 hours of vessel operation = Largest MOB dataset worldwide
- 7,000 test jumps, 5 world cruises = Operationally proven
- >95% average Probability of Detection (PD) = High reliability
- <0.3 per day average MOB Notifications = Minimised burden for the crew
- 120 days data recording, storage & replay = CVSSA compliant
- Multi standard compliance = CVSSA & ISO PAS draft

MULTI STAGE DECISION HIERARCHY



1. Multiple radars simultaneously monitor ship side ensuring falling objects are detected and tracked
2. Radar tracks are confirmed by co-located independent radar sensors
3. Behaviour of confirmed track is analysed (based on speed, fall direction, shape, strength)
4. MOB radar track is verified with infrared signature (heat, object shape, dimension, range)
5. Visual confirmation by crew based on video replay to confirm MOB alarm

TECHNICAL SPECIFICATIONS

SYSTEM PERFORMANCE *

Probability of detection	95%
False alarm rate	<0.3 per day
Detection range along hull	80m
Detection distance from hull	0-10m
MOB warning initiators	Autonomous
Wearable devices	Not required

USER INTERFACE

OS	Linux
Operator stations	Multi-touch tablet up to 78” screens
Recording storage	7/30/90/120 day storage available
Hot swap redundancy	Yes (each pod can be stand alone)
Hardware	No central server. Only a NVR may be required for extended video storage.
Video replay for confirmation	Yes
Audible alarm	Yes

MOB SENSOR PAYLOAD

Radars	High resolution, solid state
Thermal cameras	Up to 640 x 512 pixel, uncooled

MOB SENSOR ENVIRONMENT AND CERTIFICATIONS

Ingress Protection	IP67
Operation Temperature	-20°C to +70°C
EMC/EMI	IEC 60945:2002(E)
Shock and Vibration	IEC 60068-2-6:2007
Other certifications	CE marking, RoHS

PHYSICAL CHARACTERISTICS

Mechanical structure	Marine grade stainless steel
Radome	ABS
Weight	12kg
Dimension	350mm x 330mm x 330mm

MOB SENSOR POWER SPECIFICATIONS

Mob Sensor multi power supply	12/24VDC or 110-230VAC
Power consumption	109W (peak)

*Performance indicators are collected from a MOBtronic system equipped on a world-wide operating cruise vessel over a period of 5+ years, actual performance may vary depending on vessel characterisics, installation and other external conditions. Specifications, technical data and product availability are subject to change without notice.

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