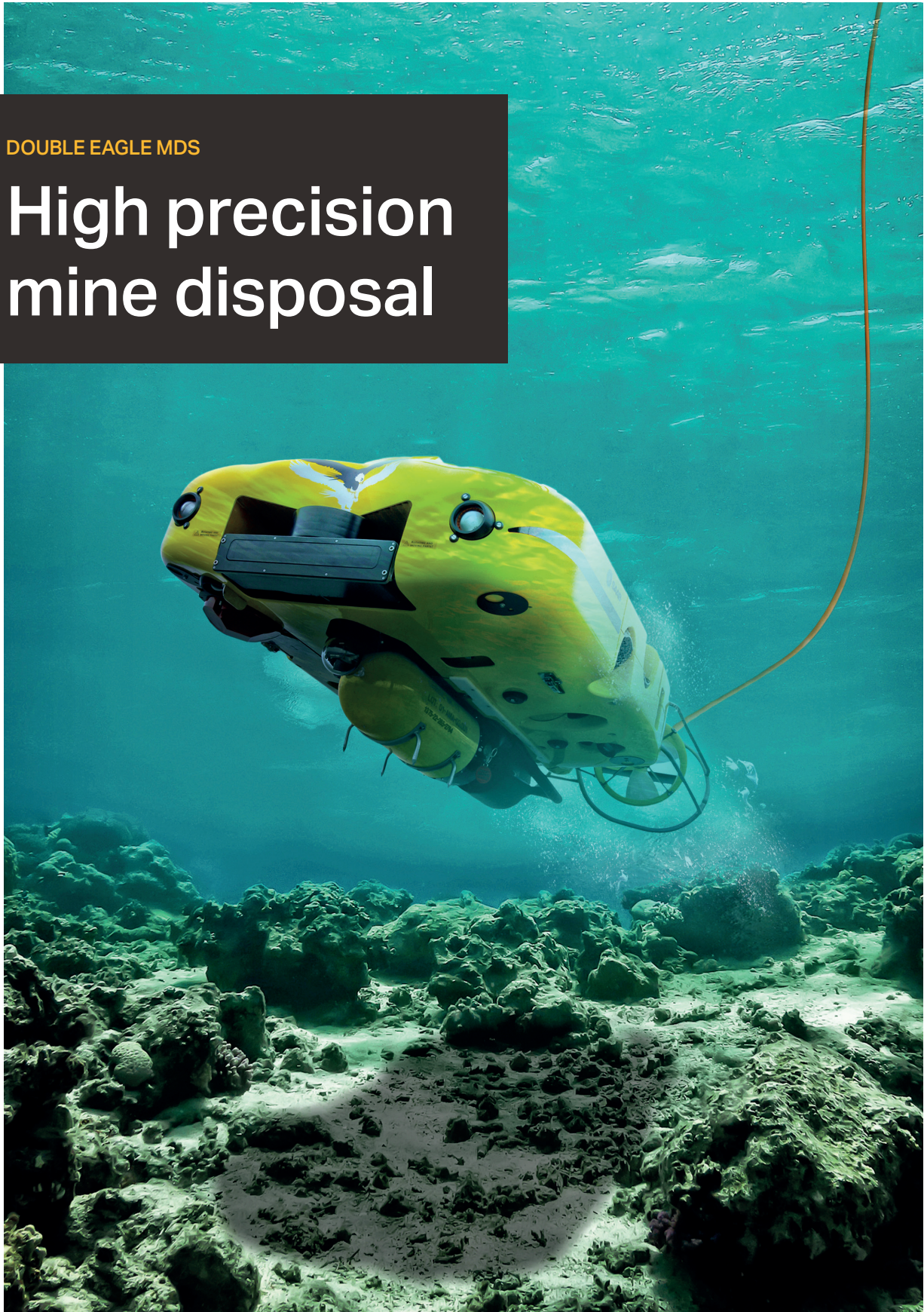




**SAAB**

DOUBLE EAGLE MDS

# High precision mine disposal





# Safe and reliable operations

The Double Eagle Mine Disposal System (MDS) is the market-leading solution for non-expendable mine disposal. Operationally proven and continually upgraded over time, it is the first choice for many navies worldwide.

The Double Eagle MDS is a Remotely Operated Vehicle (ROV) system that delivers a high level of availability and reliability, enabling safe and effective Mine Countermeasure (MCM) operations.

A modular approach to the disposal capability ensures effective operations regardless of the mission's requirements. The MDS vehicle can be launched and recovered using a standard ship's crane and is readily integrated into any combat

management system. Power to the vehicle is supplied through the tether, providing practically unlimited endurance.

## System overview

At the heart of the Double Eagle MDS is the control system that provides a hydro-dynamically stable vehicle with exceptional manoeuvrability and user-friendly controls, a crucial aspect to high-precision mine disposal.

The MDS vehicle can be launched from any type of ship, from the shore, or from a craft of opportunity (COOP). The system can also be deployed as a containerised solution.

The vehicle is connected to the ship via a tether on an Automatic Tension Control (ATC) winch. As well as providing vehicle power and control signals, the tether continuously sends real-time sonar data to the operator on board the ship.

A control interface including an Operator Control Board (OCB) and a Portable Operator Control Board (POCB), combined with

software that is ready to run on any general purpose or dedicated vehicle console, makes the MDS easy to integrate with command and control systems on different levels.

The relocation sonar is carried in the bow of the vehicle, together with a camera on a tilt table, which allows the sonar and camera to be angled downwards for optimal identification performance.

## In-service support



Saab works closely with customers worldwide to secure their operational capabilities through our well-established and effective in-service support solutions. Our flexible and scalable range of offerings includes:

- Maintenance and repair
- Supply and logistics
- Operational and technical support
- Training
- Upgrades and modifications
- Obsolescence management





**BRUSHLESS MOTORS**

The thrusters emit very low electric, magnetic and hydroacoustic noise



**NAVIGATION**

USBL, MEMS, DVL and speed log for navigation



**MINERELLOCATION SONAR**

The multibeam sonar is used to relocate detected objects





# High precision mine disposal



## System specifications

|                    |  |
|--------------------|--|
| Length             | 2.2 m  |
| Width              | 1.3 m  |
| Height             | 0.5 m  |
| Weight in air      | 360 kg   |
| Weight in water    | Adjustable, slightly buoyant   |
| Speed              | 0–6 knots  |
| Operational depth  | 500 m  |
| Payload            | 250 kg   |
| Vehicle control    | 6 Degrees of Freedom, auto depth, auto heading, auto altitude, waypoint steering and autopilot   |
| Navigation sensors | Ultra-Short Base Line (USBL), Microelectromechanical Systems (MEMS), Doppler Velocity Log (DVL) and speed log Inertial navigation System (INS) and GPS |
| Camera             | Colour camera on tilt table  |
| Tether             | 1,000 m, 11 mm power and fibre optic   |
| Communication      | Fibre optic – Gigabit, Ethernet  |
| Sonar              | Multibeam forward looking relocation sonar   |



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