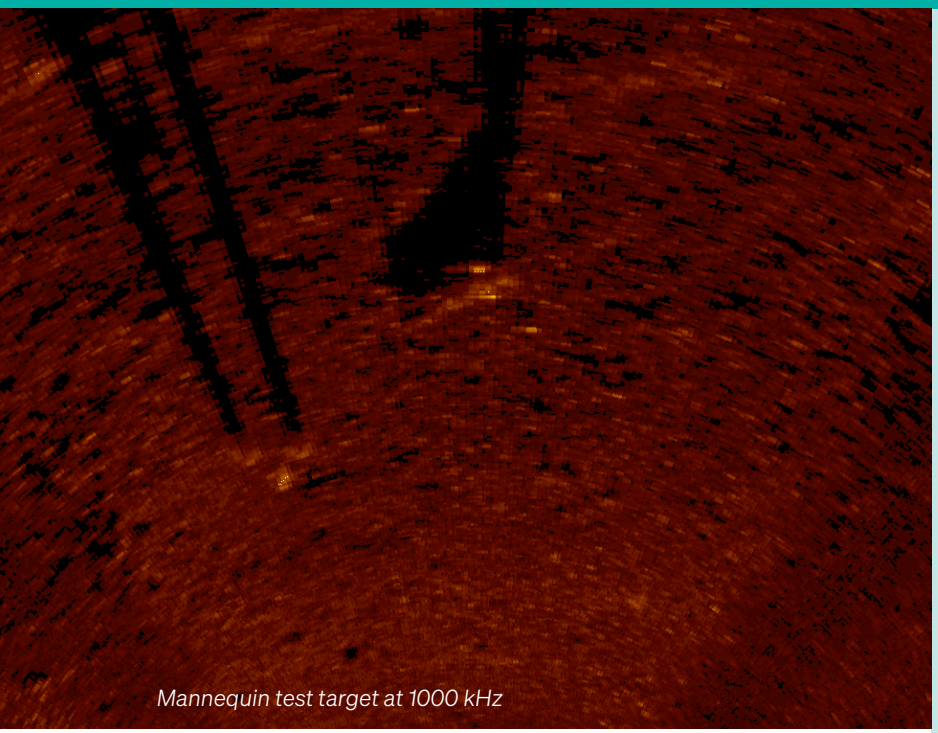
SAR Express

KONGSBERG



Mannequin test target at 1000 kHz



SAR Express from Kongsberg Discovery is a cost-effective, professional-grade scanning sonar system designed for dive teams and first responders operating under budget constraints.

At the heart of the system is Kongsberg Discovery's advanced Clariscan® domed sonar, featuring a wide-bandwidth composite transducer and patented acoustic lens technology that delivers exceptional image clarity in challenging underwater environments.

Trusted worldwide by first responders, divers, and law enforcement agencies, Kongsberg Discovery search and recovery systems support missions involving drowning victims, evidence recovery, downed aircraft, and submerged vehicles.

SAR Express helps teams work faster, enhance diver safety, and obtain accurate search records.

FEATURES

- Low-cost system for limited budgets
- Saves time
- Increases diver safety by allowing operator to identify potential hazards and direct the diver in real-time
- Provides digital records of search and findings
- Unprecedented image clarity from a domed sonar
- Operates in zero visibility from 1 - 250 M (3 - 820') range

SYSTEM UNITS

MS1000 Express Software

MS1000 Express delivers all core functions required for sonar deployment and operation free of charge. A Windows PC is required for operation. Customers must supply their own system.

Rugged USB Remote Keypad

The included USB plug-and-play keypad simplifies sonar operation by enabling quick access to essential MS1000 software functions—no traditional keyboard or mouse required. A two-button thumb joystick provides precise pointer control, while soft backlighting on the buttons ensures visibility in dark or low-light conditions.

Low-voltage splash-proof Interface Unit

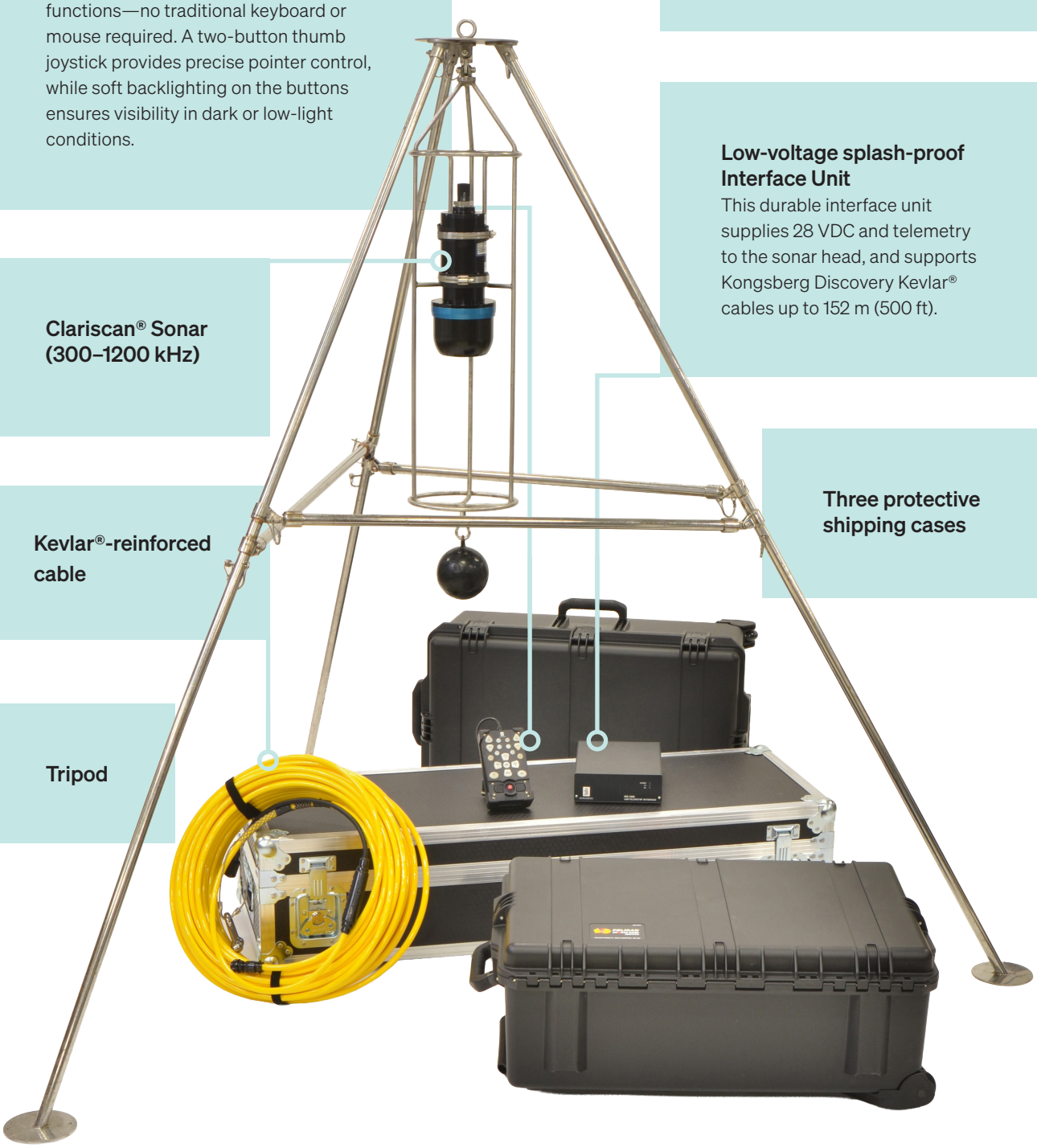
This durable interface unit supplies 28 VDC and telemetry to the sonar head, and supports Kongsberg Discovery Kevlar® cables up to 152 m (500 ft).

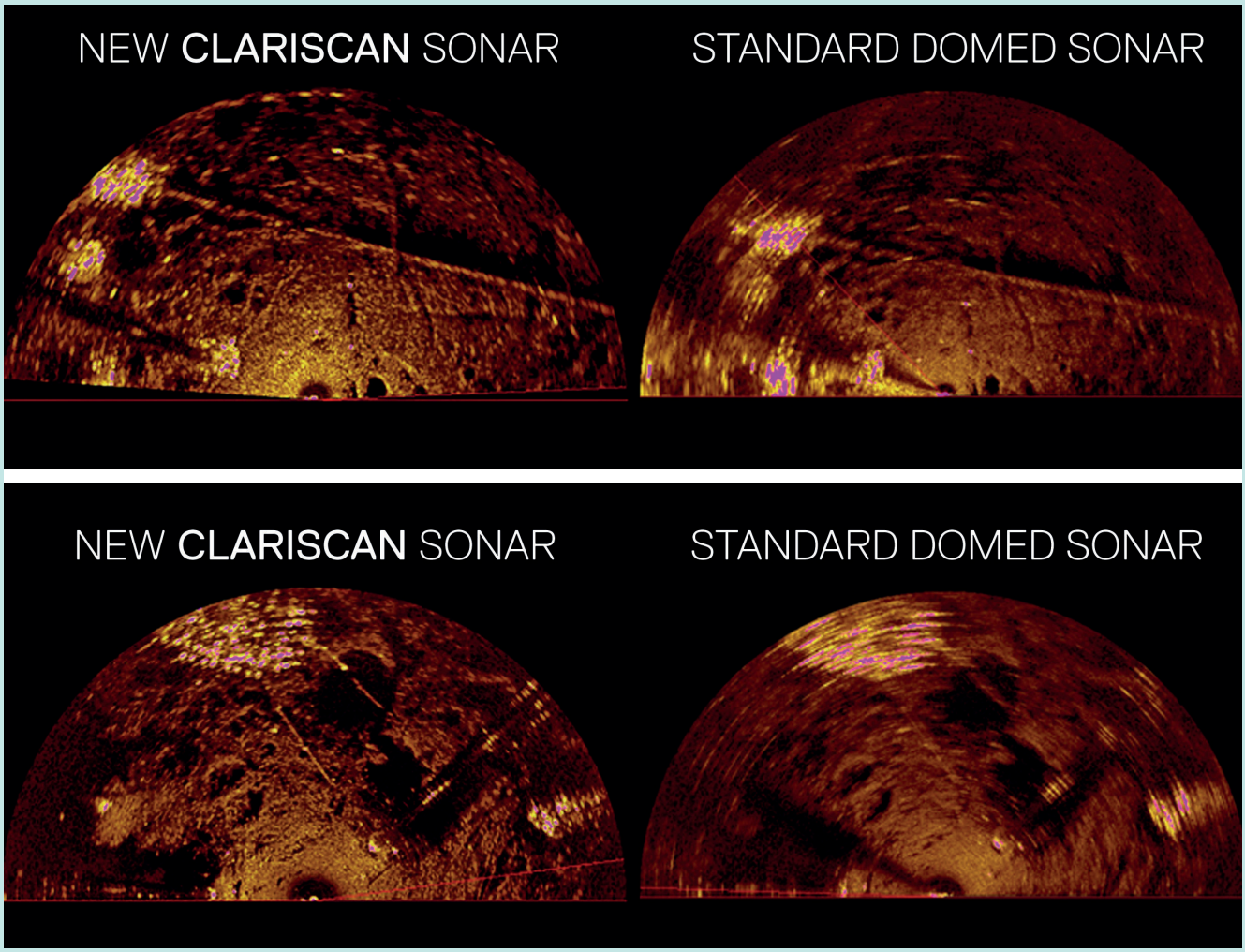
Clariscan® Sonar (300–1200 kHz)

Three protective shipping cases

Kevlar®-reinforced cable

Tripod





The problem

Oil-filled domes were introduced to provide protection and eliminate flooding on traditional exposed transducer shafts. This innovation solved flooding issues but introduced beam defocusing in two conditions: warm & shallow, and cold & deep. The beam defocusing effect becomes more extreme in warm, shallow water as temperature increases and in cold, deep water as depth increases.

Our solution

We have designed an acoustic lens that maintains beam focus through operational temperature and depth changes, significantly improving sonar performance and resulting in images that are much sharper. The Clariscan acoustic lens behaves like an optical contact lens, correcting refraction caused by oil in the dome.

The Clariscan has a depth rating of 4000 m and is part of Kongsberg Discovery's 1171 series of sonar heads. It has been optimized to meet the requirements of deep-ocean applications.

"Sending a police officer underwater in zero visibility without scanning sonar is like sending an officer on patrol without a bulletproof vest."

Sgt. Rob Riffle, Dive Team Supervisor
Winnipeg Police Services

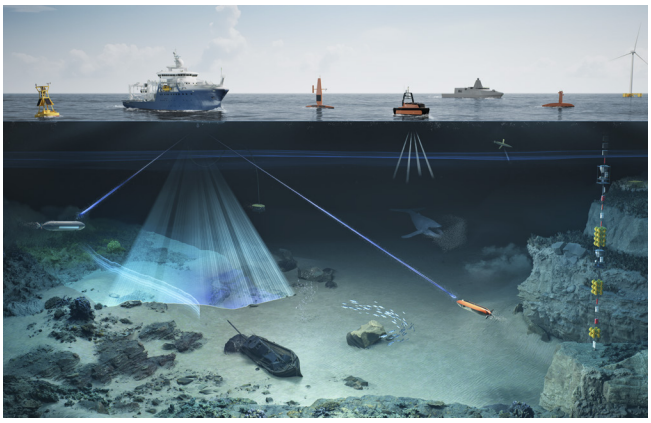
Kongsberg Discovery

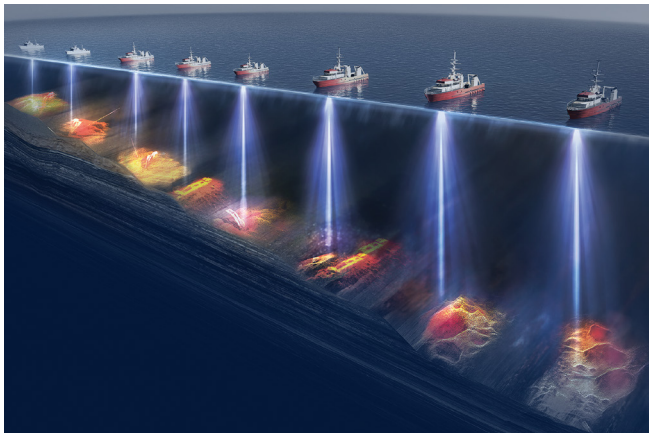
Protecting people and planet

From the deepest sea to outer space

Kongsberg Discovery serves the ocean space from the deepest sea to outer space. We develop technology to ensure sustainable management of marine resources, monitor climate change and critical infrastructure, and safeguard national security.

Our technology aims to sustainably manage marine resources, monitor climate change, secure infrastructure, protect national security, and address crucial global challenges. It is vital for offshore operations, fisheries, marine research, maritime activities, ocean energy production, infrastructure monitoring, and naval operations.





Committed to protecting our planet

We recognize the global sustainability challenges and are committed to developing solutions and products that resolve operational issues while addressing environmental impacts on the ocean ecosystem.

The business has over 1,100 employees located in Horten, Trondheim, and Oslo in Norway, as well as operations in Alicante in Spain, Aberdeen in the UK, Lynnwood (Seattle), Houston, and New Orleans in the USA, Vancouver and Halifax in Canada, Kuala Lumpur in Malaysia, and Singapore. Kongsberg Discovery is part of KONGSBERG, a leading technology group based in Norway.

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