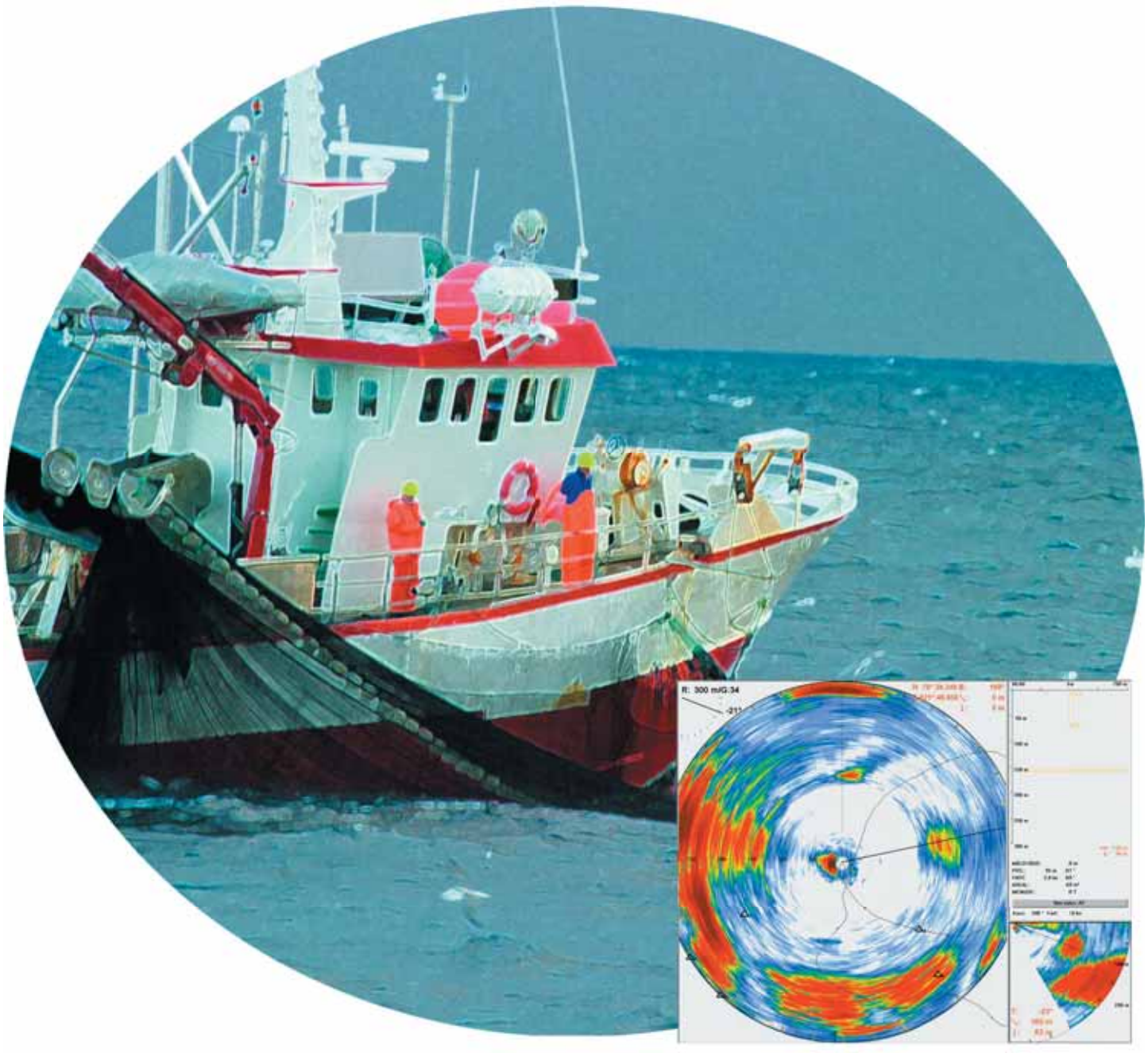
SONAR
Simrad SH40 Omnisonar

SIMRAD



New high frequency omnisonar for coastal fishery

Simrad continues the development program for the coastal fishery fleet, and can now introduce *SH40*: a new high frequency fishery omnisonar.

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MAXIMIZING YOUR PERFORMANCE AT SEA

SIMRAD
A KONGSBERG Company

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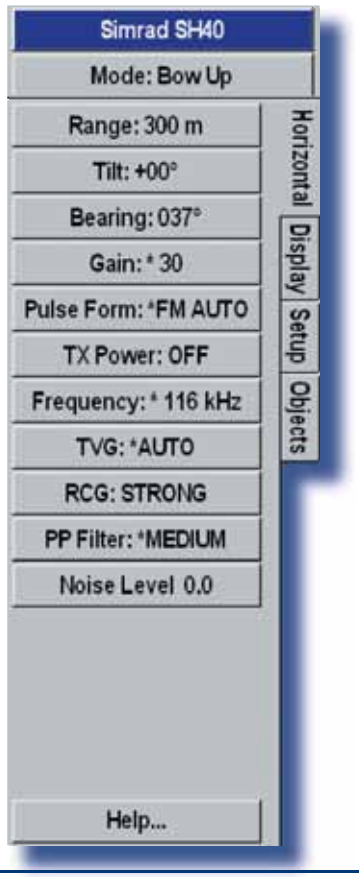
*The new **Simrad SH40** has been developed to find coalfish, herring and similar species under difficult conditions. The sonar is equipped with a vertical view mode which allows you to locate the position of the schools relative to the seabed. This gives you full control of the catch.*

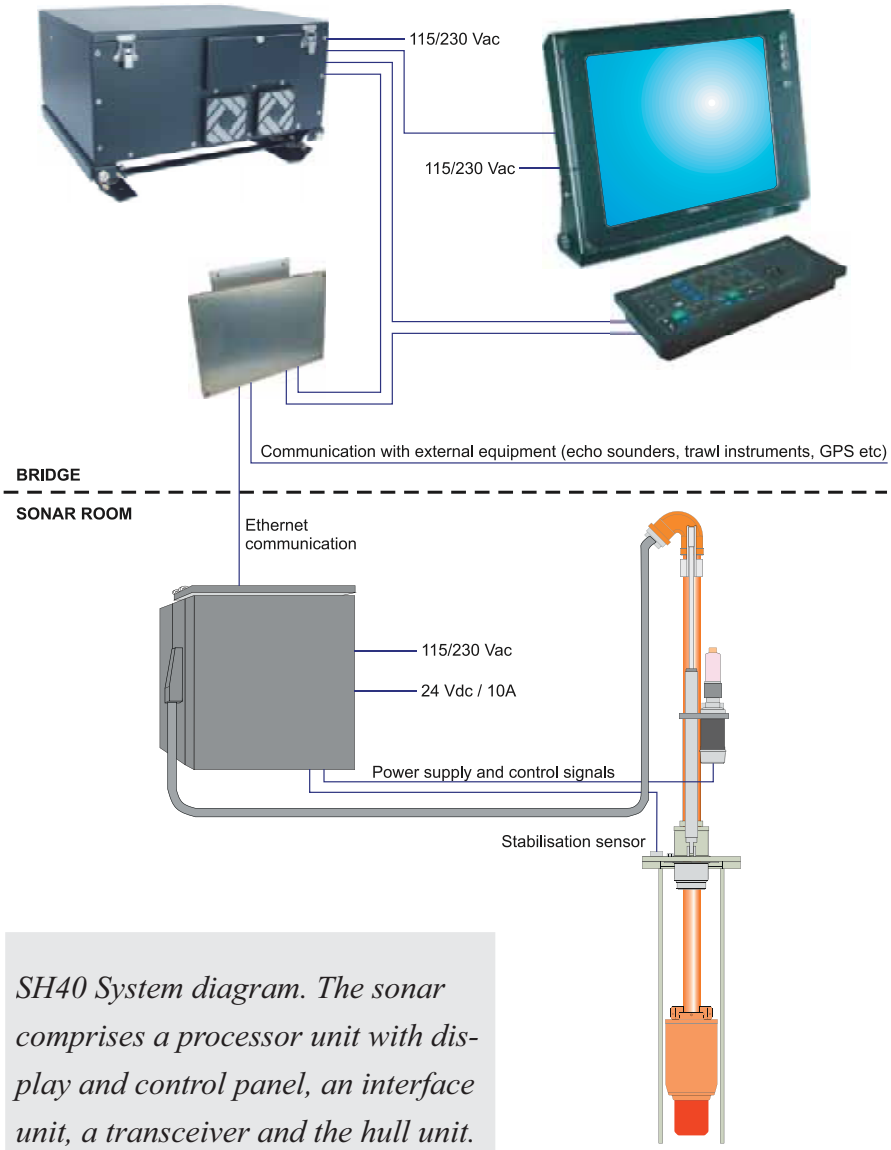
Stable images: The **SH40** compensates for the vessels' movements, even in the vertical view. This gives you a more stable sonar picture, and enhances the quality of the echo presentation.

New hull unit: A brand new hull unit has been developed for the **SH40**. It is hydraulically powered, which means that it does not require a three-phase power supply. Its physical size has also been greately reduced. These factors will make installation easier and cheaper.

The **Simrad SH40** is based on its "big brother" **SH80**.



System diagram



SH40 System diagram. The sonar comprises a processor unit with display and control panel, an interface unit, a transceiver and the hull unit.

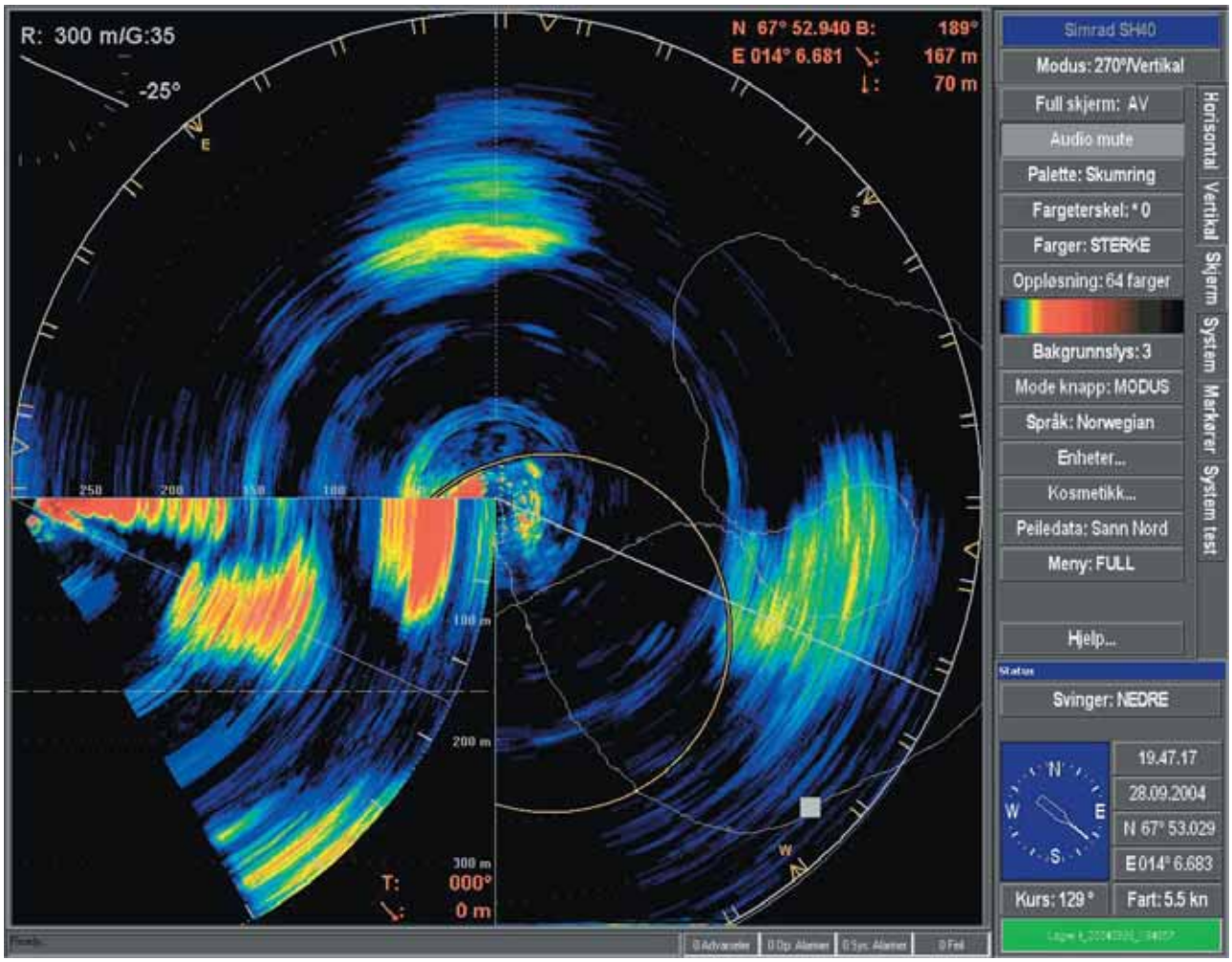
***Simrad SH40** provides results:* On the next page you can see two typical examples provided by a test installation made in the early fall of 2004.

Top: Herring in Vestfjorden, Northern Norway, 28 September 2004. A night colour palette is used, and the sonar runs in mode **270º/ Vertical**. The image colours have been modified to allow print.

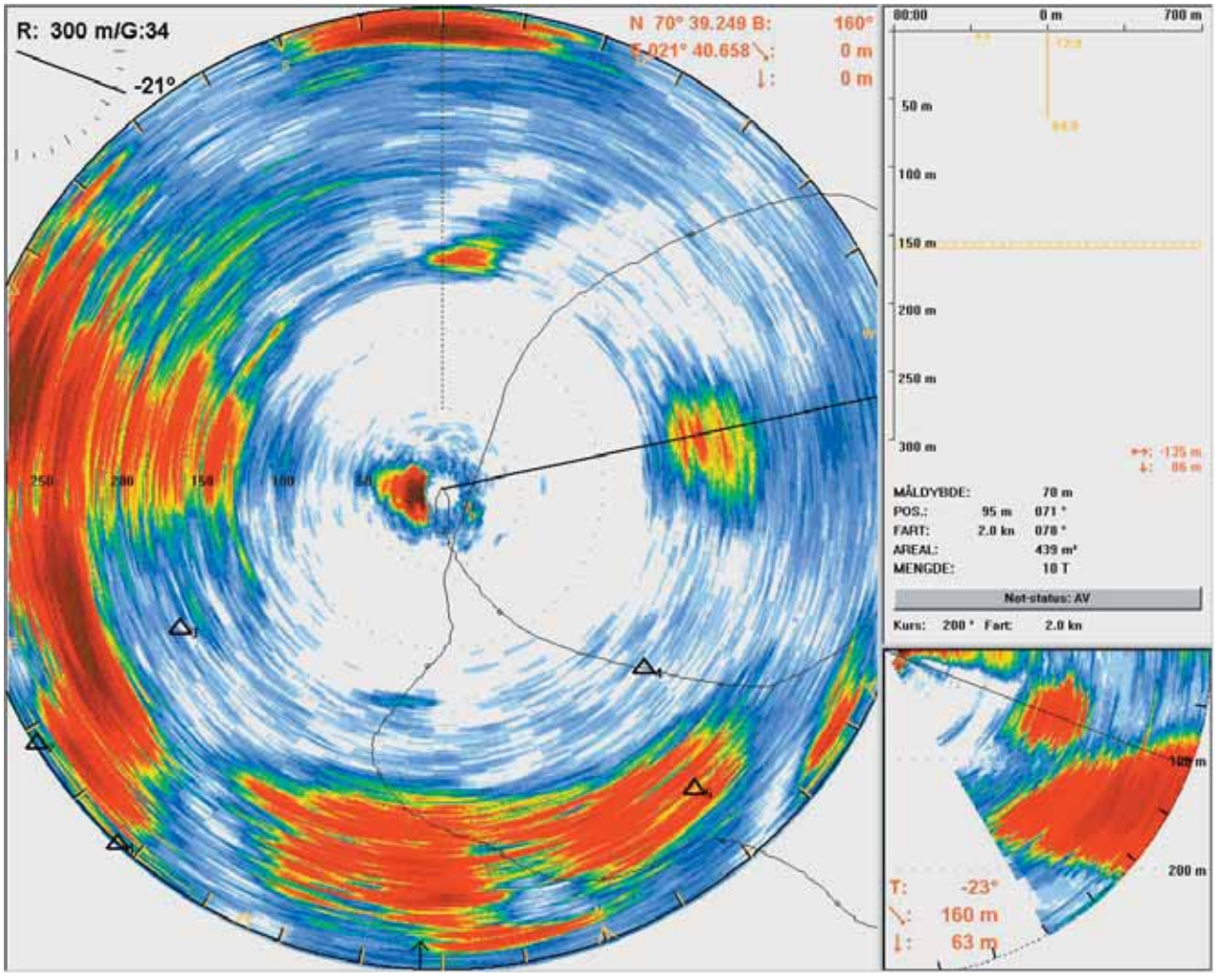
Bottom: Coalfish close to the seabed, Lopphavet, Northern Norway, 20 October 2004. The operator has chosen a catch mode, a palette with white background, and he has hidden the menu from view.

***Simrad SH40** is easy to operate:* It uses Simrad's intuitive standard user interface, the same as you know from the other sonars. This yields recognition, no matter which sonar you use; SP60, SP70, SP90, SH80 or the new SH40.

Herring in Vestfjorden

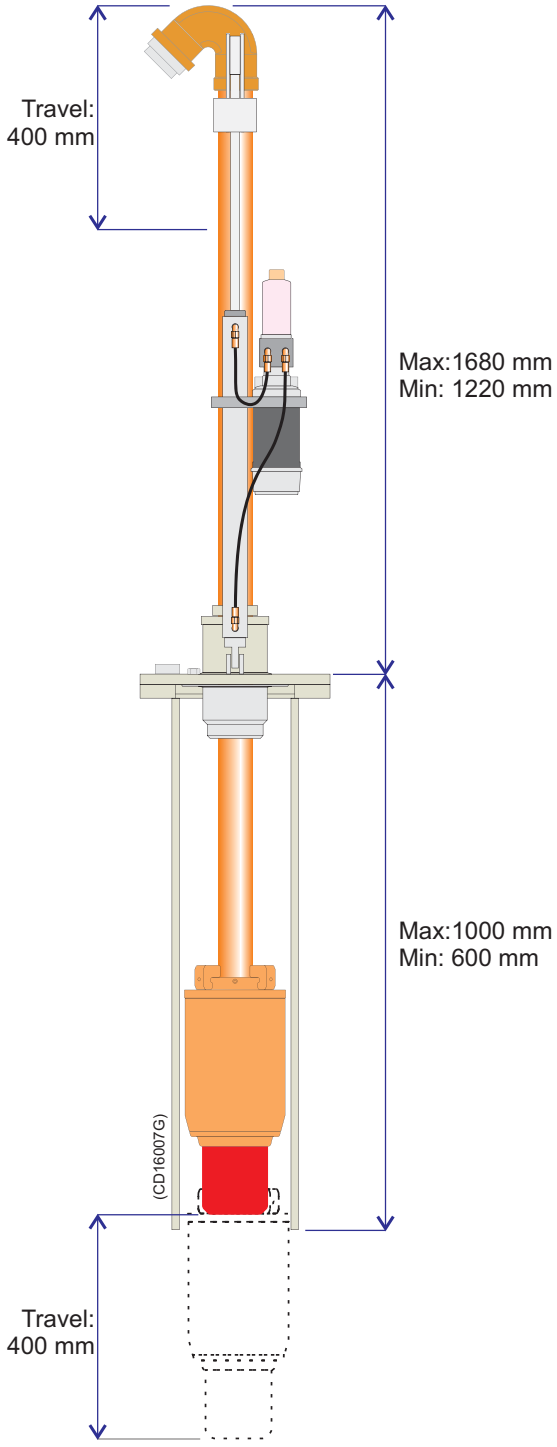


Coalfish close to the seabed



Technical specifications

Frequency: 116 kHz (see “Options”)
Ranges: 50, 75, 100, 150, 200, 300, 400, 500, 600, 750, 1000 and 1200 m
Tilt: +10 to -60°
Detection range: 700 m with 0 dB target
Transducer:
Geometry: Cylinder
Horizontal beam: 8° or 360°
Vertical beam: 15° or 60° (vertical view)
Interfaces (RS-232):
Speed log, Course gyro, GPS, Echo sounder, ITI/FS Trawl system, PI32 Purse seine system, Buoy data
Power requirements:
Display: 115/230 Vac, 50/60 Hz, 100 W
Processor Unit: 115/230 Vac, 50/60 Hz, 200 W
Transceiver: 115/230 Vac, 50/60 Hz, 500 W
Hull unit: +24 Vdc, 10 A
Hull unit:
Maximum travel: 400 mm
Hoist speed: 20 seconds
Maximum vessel speed: 20 knots
Trunk diameter: 8”
Typical length: 1000 mm
Options:
Display: 17”, 19” eller 21” LCD
(Resolution 1280 X 1024 pixler)
Sonar frequency: 110 to 122 kHz (1 kHz steps)
Gyro connection: Analogue converter
Trunk: Type approved (DNV) trunk



SH40 Hull unit

Note: Technical specifications can be altered without prior notification!

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