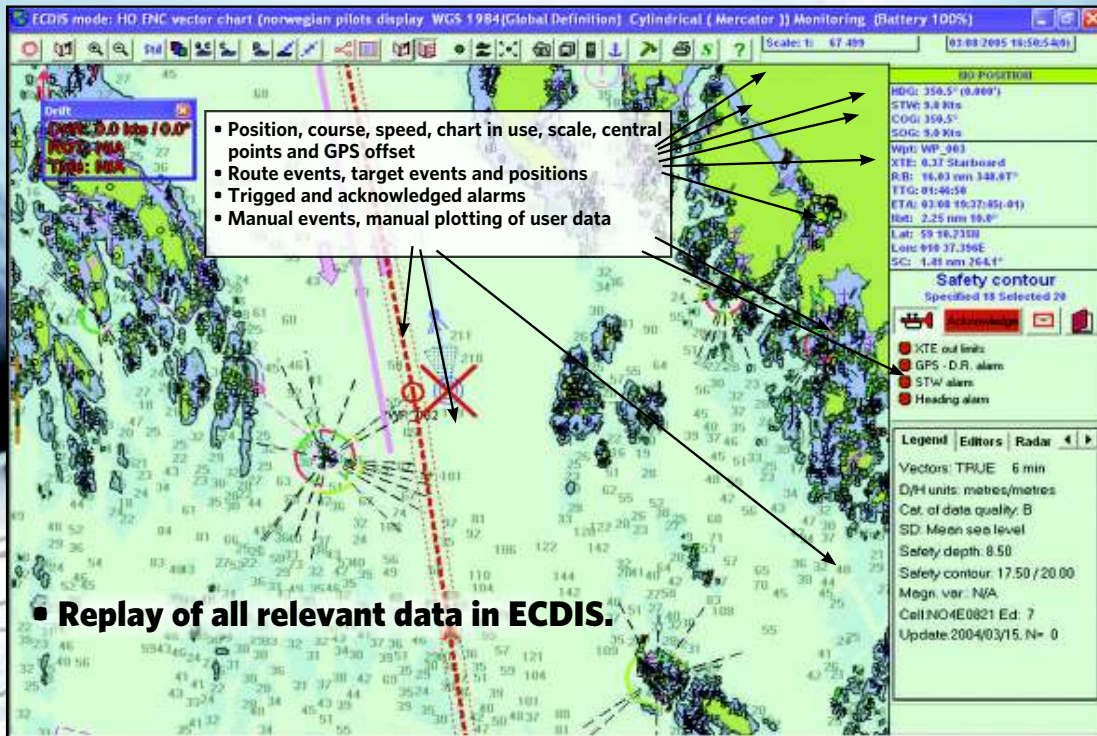


## Type Approved Combined VDR/S-VDR with ECDIS900



Maritime Information Systems AS introduces the world's first DNV type approved VDR and S-VDR with optional ECDIS, providing, in addition to the recorded data required under IEC 61996, recording of the complete logbook database in ECDIS.

The MARIS ECDIS900 logbook, which complies with SOLAS regulation V/28 for records of navigational activities, provides navigator textual notes, route-monitoring information, including reference to the displayed charts, its updating, ship's track, heading, speed, alarms and acknowledgements and all other settings of the MARIS ECDIS900.

The past twelve hours of this data is recorded to the hardened storage device, fixed or float free, together with the obligatory VDR or S-VDR data.

The VDR2000/S-VDR2000 replay system allows the data to be "burnt" to CD ROMs, and in doing so an ECDIS reader heads the data, such that replay reconstructs the actual ECDIS displayed data.

This in addition to the display of recorded raw data, audio, VHF, radar etc., which can be displayed in raw form, as radar image or in the form of a conning display. The CD with recorded data may be replayed on any Windows compatible PC.

With the increased use of ECDIS, impending compulsory carriage and the move to paperless navigation, traditional plotting of ships position on paper charts will be significantly reduced. In most cases it will not be executed at all, when ECDIS is used as primary aid to navigation.

It means that the logbook database in ECDIS is left as the only source of route monitoring information, including reference to displayed charts, its updating, ships track, heading, speed and all settings of ECDIS.



Existing standards do not contain requirements for the registration and recording of this information in VDR and S-VDR systems, now required for compulsory carriage on all SOLAS registered vessels between 2006 and 2010. Phase in compulsory carriage of ECDIS is expected to commence toward the end of the S-VDR phase-in.

An addition of a single ECDIS workstation enables the ship-owner to move toward paperless navigation or, dependent on flag state, a reduction of the paper chart portfolio otherwise required to be carried.

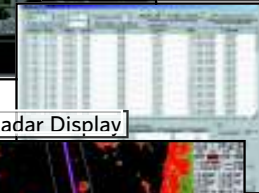
Ship-owners are faced with investing, first in either a VDR or S-VDR, and then an ECDIS. Neither a VDR nor S-VDR records the complete navigational picture. Whilst an ECDIS with logbook function compliant with the SOLAS requirements for records of navigational activities under regulation V/28 does - it does not record this data to a hardened removable storage media.

MARIS has developed options for both its VDR2000 and S-VDR2000 to enable integration of its ECDIS900 system **in one and the same unit**, providing complete ECDIS900 logbook recording and replay. The combined units are less than the cost of an ECDIS900 and separate VDR2000 or S-VDR2000, and likewise the double installation costs of fitting both independent of one another are halved since one installation provides both systems.

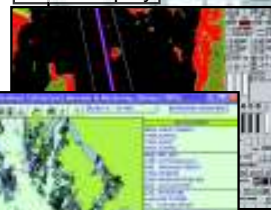
Conning Display



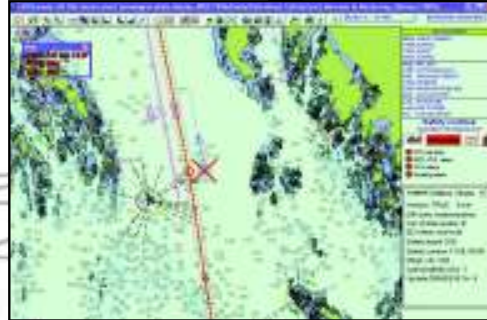
General Data Display



Radar Display



ECDIS Display



- ECDIS as playback unit included
- ECDIS logbook included
- Real time, RAW data network broadcast enable display on any multimedia computer connected
- Loading of Voyage Data Recordings and logbook to DVD-Recorder



MARIS is a limited company with head office in Tønsberg, Norway a recognized centre for maritime information technology. The company has delivered thousands of navigation systems to customers all over the world. The majority owner is the Grieg Group ([www.grieg.com](http://www.grieg.com))

The Grieg Group has its beginnings in a long and proud maritime tradition. Today, in addition to shipowning and shipbroking, the group is engaged in fish farming and processing, global logistics, insurance broking and asset management, employing some 900 people.

MARIS roots go back to the start of the maritime information technology explosion of the mid-1960s. MARIS is a system house with world-class experience in maritime on-board systems. Innovative engineering from people in MARIS has added several "worlds first" to the global list of milestones. Among our worlds first are "Wheelmark" certified ECDIS and PC radar/ARPA, IEC 60945 certified Flat Panel Computer and S-VDR/ECDIS COMBO.



**maris**  
MARITIME INFORMATION SYSTEMS AS

Maritime Information Systems AS (MARIS)

Danholmen 25, NO-3115 Tønsberg, Norway Tel: +47 33 30 42 50, Fax: +47 33 30 42 51 E-mail: [sales@maris.no](mailto:sales@maris.no)

a Grieg Group Company