

VOYAGE DATA RECORDER

Like the black boxes carried on aircraft, VDRs enable accident investigators to review procedures and instructions in the moments before an incident and help to identify the cause of any accident.

The VDR collects data from the sensors on board the vessel and stores it in an externally mounted Crash Survivable Module (CSM). The CSM is a tamperproof unit designed to withstand the extreme shock, impact, pressure and heat, which could be associated with a maritime incident. The CSM may be retrieved from the vessel and the stored data replayed by the authorities for investigative purposes.

Features

- Compact and lightweight Crash Survivable Module (CSM) and Data Acquisition unit (DAU)
- Space saving, modular design makes it ideal for all classes of vessels including high speed ferries.
- Removable Storage Unit (White Box) records 30 days of data and allows the ship's history to be archived ashore (option).
- Office PC Playback Software for training and monitoring purposes (option)
- Replay option displays sensor information and ship's movements on an electronic chart background with playback of recorded audio.
- Remote LCD Real Time Display (RTD) - providing conning information
- Integral and optional Remote Status and Alarm Module (SAM)
- 'Black Box' CSM data for the last 12 hours using solidstate memory and an acoustic beacon to aid underwater location (38 hour option is available)
- Integral UPS for up to 2 hours of data recording
- AC and 24V DC Operation (option)

Recorded Data

- GPS – Date, Time & Position
- LOG – Speed
- GYRO – Heading
- RADAR – Post Display Image (VDR Only)
- ANEMOMETER – Wind Speed & Direction
- ECHO SOUNDER – Depth
- BRIDGE AUDIO – Internal & External
- VHF COMMS – Communication Channels
- HULL OPENINGS – Hull Doors
- RUDDER – Order and Response
- AUTOPILOT – Settings & Status
- ENGINE/PROPELLER – Order & Response
- THRUSTERS – Status, Direction, Thrust

VDR and SVDR Carriage Requirements

The following vessels are required to carry a VDR and are subject to an annual survey:

- All Passenger ships and ro-ro passenger ships
- Ships, other than passenger ships, of 3,000 GT and upwards constructed on or after 1 July 2002.

The following vessels are required to carry an SVDR and are subject to an annual survey:

- Ships over 3,000 GT constructed before 1 July 2002

Kelvin Hughes MantaDigital™ Voyage Data Recorders (VDR) and Simplified Voyage Data Recorders (SVDR) are type approved and exceed the requirements of IMO Performance Standards.

MANTADIGITAL™



DATA ACQUISITION UNIT (DAU)

FLOAT-FREE CRASH
SURVIVABLEMODULE (CSM)

FIXED CRASH SURVIVABLE
MODULE (CSM)

REMOTE STATUS AND
ALARM UNIT

WHITE BOX DATA STORAGE UNIT

SYSTEM CONFIGURATIONS

Standard Configuration

Data Acquisition Unit:

- 16 serial ports
- 2 radar interfaces (VDR only)
- 2 VHF audio interfaces
- Pulse log interface
- Synchro or stepper gyro
- CSM Interface
- Up to 12 microphones
- Battery unit

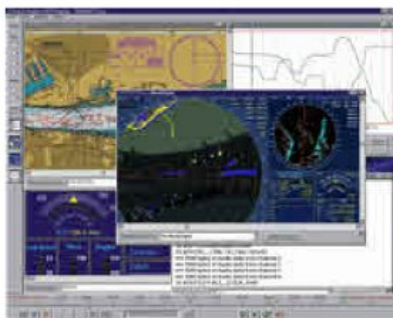
Options

- Removable data storage
- Replay software
- Remote real-time Ddisplay
- Up to 6 additional microphones
- Serial expansion capability
- Bridge wing microphones
- Analogue interface capability



Data Replay (option)

The optional replay kit allows the data stored in the removable white box to be replayed on a PC. The replay includes the display of radar images together with status, navigation and audio data. This can be used both for post-incident analysis and crew training.



Physical Details



All dimensions in millimetres.
Products shown in approximate relative proportions.



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