NEW THREATS DEMAND NEW SOLUTIONS

MANTA DIGITAL™ Voyage Data Recorder
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Kelvin Hughes MantaDigital™ Voyage Data Recorder is type approved and exceeds the requirements of IMO Performance Standards.

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 tamper-proof 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) allows the ship's history to be archived ashore (option) allows 30 days continuous recording.
- Office PC Playback Software for training and monitoring purposes (option)
- Replay option provides VCR style viewing of sensor information, including sound and ship's movements on an electronic chart background.
- 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 solid-state memory and an acoustic beacon to aid underwater location (38 hour option is available)
- Integral UPS for 2 hours for all data items
- USB port for on-board downloads to laptop or ship's PC (option)
- AC and 24V DC Operation (option)

Recorded Data:
- GPS - Date, Time & Position
- LOG - Speed
- GYRO - Heading
- RADAR - Post Display Image
- 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

Fixed Crash Survivable Module (CSM)

Data Acquisition Unit (DAU)

Float-free Crash Survivable Module (CSM)

"White box" data storage unit

Remote Status and Alarm Unit
System Configurations

Standard Configuration
Data Acquisition Unit:
- 16 serial ports
- 2 radar interfaces
- 2 VHF interfaces
- Pulse log interface
- Synchro or stepper gyro
- CSM interface
- Up to 12 microphones
- Battery unit

Options
- Removeable data storage
- Replay software
- Remote real-time display
- 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 removeable 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.
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