

Voyage Data Recorders (VDRs) versus Simplified Voyage Data Recorders (S-VDRs): How Do They Differ?



Over **6000** vessels
Rely on Netwave VDR

At its most basic, a VDR is a substantial data recording system required under IMO mandate for commercial SOLAS vessels. The IMO defines a VDR as an system as '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 legal requirement is for passenger ships and ships other than passenger ships of 3000 gross tonnage and upwards constructed on or after 1 July 2002 must carry voyage data recorders (VDR) to assist in accident investigations, under regulations adopted in 2000.

A VDR should maintain a store, in a secure and retrievable form, of information concerning the position, movement, physical status, command and control of a vessel over the period leading up to and following an incident

In 2004 amendments to Regulation 20 of SOLAS Chapter V introduced a requirement for a simplified version of a VDR – to assist in casualty investigations, cargo ships, when engaged on international voyages. S-VDRs are equally relevant in terms of data capture of operational activity on board the vessel, but an S-VDR is required to collect less information.

Essentially, both systems collect and protect data of incidents or events on board for a minimum of 12 hours of uninterrupted recording. Both devices are require bridge microphones, radar video and VHF audio to capture navigational data but the full VDR has additional compulsory channels to be recorded, for example echo sounder, propulsion, water tight doors, fire detection.

Netwave's VDR technology is scalable to support both system requirements based on the same foundation components but designed with ease of installation and particularly retrofit installation requirements in mind.

Captured VDR Data

- Date and time
- Ship's position In latitude and longitude
- Speed: Through the Water
- Heading as indicated by the ship's compass.
- Bridge audio picked up by microphones posi-tioned on the bridge
- VHF communications relating to ship opera-tions
- Radar data from one of the ship's radar instal-lations
- AIS data, if it is impossible to obtain radar data then AIS target data should be recorded as a source of information regarding other ships.
- Additional data not applicable to SVDR (under resolution A.861(20),
- Echo sounder, Main alarms, Rudder order and response, Engine order and re-sponse, Hull openings status, Watertight and fire door status, Accelerations and hull stresses, Wind speed and direction.