

## Evidence Collection from VDRs

Under regulation 20 of SOLAS Chapter V, from the 1st July 2010 all ships of 3,000GT and upwards, when engaged on international voyages, must carry voyage data recorders (VDRs). This regulation already applied to all passenger ships, ships of 20,000GT and upwards and ships of 3,000GT and upwards constructed on or after 1 July 2002.

Amendments to SOLAS regulation 20/ V adopted in December 2004 provide for a phased-in carriage requirement for a voyage data recorder (VDR) on cargo ships built before 1 July 2002, allowing for these ships to be fitted with a simplified voyage data recorder (S-VDR).

The S-VDR is not required to store the same level of detailed data as a standard VDR, but, nonetheless, should retain, in a secure and retrievable form, information concerning the position, movement, physical status, command and control of a vessel. In accordance with the performance standards for S-VDRs, the time for which all stored data items are retained should be at least 12 hours while data items that are older than this may be overwritten with new data.

The purpose of a VDR is similar to that of the black boxes carried on aircraft; to enable accident investigators to review the events,



actions, compliance with procedures and instructions given in the period leading up to an incident, and thereby help to identify the cause of any accident.

Recovery of the VDR information should be undertaken as soon as possible after an accident in order to best preserve the relevant evidence for use by both the accident investigators and the ship owner.

It has recently been reported by some marine incident investigators that some ships' crews are not sufficiently well familiarised with the recording system of the VDR, and consequently the information

in some cases was not saved, and was then overwritten or the copy was damaged.

A number of condition surveys undertaken by the Club also revealed that on many occasions the ships' navigation officers, including senior officers, failed to demonstrate awareness of VDR operational procedures.

In accordance with the IMO guidelines on Voyage Data Recorders (VDR) Ownership and Recovery, the ship owner will, in all circumstances and at all times, own the VDR and its information. However, in the event of an accident, the owner of the ship

should make all the recorded information available to investigators.

Recovery of the VDR information should be undertaken as soon as possible after an accident and the owner must ensure that this is achieved through compliance with on-board standing orders, operational procedures and adequate training of personnel on board.

Vessels should be under instruction to ensure that immediately after a casualty or the occurrence of a near miss, the VDR data is saved and/ or the records are copied in the appropriate manner.

In the case of abandonment of a vessel during an emergency, Masters should, where time and other responsibilities permit, take the necessary steps to preserve the VDR information until it can be passed to the investigator.

In all circumstances the investigator is responsible for arranging downloading and read-out of the information, and should keep the

ship owner fully informed. In some cases, the assistance of specialist expertise may be required to extract the data.

The current Performance Standards for VDR/S-VDR do not specify a recording format for VDR data. Consequently VDR manufacturers have adopted differing approaches and methods. There has been a growing demand from Accident Investigators and a number of ship owners for the harmonisation of playback facilities and standardisation of VDR data formats.

In any incident that is likely to result in liabilities falling within the scope of Club cover, the ability of the Club and any appointed lawyers or experts to assist in effectively protecting the Member's interests very much depends upon the availability of accurate factual information. The data that is available from a vessel's VDR is therefore extremely important and Members are strongly advised to ensure that their Masters and officers are fully familiar with the VDRs on their vessels in order that

the ability to protect their interests in the event of a casualty is not unnecessarily compromised.

Additional information on this topic can be found using the following links:

*MSC/Circ.1024 Guidelines on voyage data recorder (VDR) ownership and recovery*

[http://www.imo.org/includes/blastDataOnly.asp?data\\_id%3D5628/1024.pdf](http://www.imo.org/includes/blastDataOnly.asp?data_id%3D5628/1024.pdf)

*SC/SN/Circ.246 Recommended means for extracting stored data from Voyage Data Recorders (VDRs) and Simplified Voyage Data Recorders (S-VDRs) for investigation authorities.*

[http://www.imo.org/includes/blastDataOnly.asp?data\\_id%3D12653/246.pdf](http://www.imo.org/includes/blastDataOnly.asp?data_id%3D12653/246.pdf)



For further information on this or other Loss Prevention topics please contact the Loss Prevention Department, Steamship Insurance Management Services Ltd.

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