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Use of Vessel Bridge Electronic Data in Litigation

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1. Introduction

Litigation using Vessel Electronic Data has significantly changed. In many instances, what would essentially have been “swearing matches” between the bridge personnel of two vessels because of a vessel’s electronic data we now know exactly how the vessels were operated and even what was said at the time. The sources include voyage data recorders which provide bridge audio, ship’s position, speed, course and other vital information, and automatic identification system which identifies vessel and shows location, speed and course. These can be used to prepare user friendly computer simulations to illustrate to the Court what occurred.

With more available data also arises a greater obligation to retain and preserve more data. The requirements for preserving the data and possible consequences of not preserving the data will also be considered as well as the admissibility of the computer simulations.

2. Voyage Data Recorders (VDR) and Simplified Voyage Data Recorder (S-VDR)

a. Requirements by International Maritime Organization (IMO) for VDR and S-VDR

Under Regulation 20 of Chapter V of the Safety of Navigation of the International Convention for the Safety of Life at Sea (“SOLAS”), 1974, “[t]o assist in casualty investigations” the following ships, with some limited exceptions, are required to carry a voyage data recorder (“VDR”):

- passenger ships constructed on or after 1 July 2002;
- ro-ro passenger ships constructed before 1 July 2002, not later than the first survey on or after 1 July 2002;
- passenger ships, other than ro-ro passenger ships, constructed before 1 July 2002, not later than 1 January 2004; and
- ships, other than passenger ships, of 3,000 gross tonnage and upwards constructed on or after 1 July 2002.

On December 2004, the International Maritime Organization (IMO) adoption amendments to regulation 20 of SOLAS chapter V, entering into effect on July 1, 2006, phasing-in carriage requirement for a simplified voyage data recorder (S-VDR). The regulation requires a VDR or S-VDR, to be fitted on existing cargo ships of 3,000 gross tonnage and upwards. The phase-in was to take place as follows:

- cargo ships of 20,000 gross tonnage and upwards constructed before 1 July 2002, at the first scheduled dry-docking after 1 July 2006 but not later than 1 July 2009;
- cargo ships of 3,000 gross tonnage and upwards but less than 20,000 gross tonnage constructed before 1 July 2002, at the first scheduled dry-docking after 1 July 2006 but not later than 1 July 2010; and

The S-VDR is not required to store the same level of detailed data as a standard VDR, but nonetheless should maintain, in a secure and retrievable form, information concerning date and time, ship's position (latitude and longitude), speed (through the water or over ground), heading (as indicated by the ship's compass), bridge audio (capture conversations at or near the conning stations, radar displays, chart tables, etc. and should also capture intercom, public address systems and audible alarms on the bridge), VHF communications, radar data (record all information actually being presented on the master display of the radar), Automatic Identification System ("AIS") data, and if available the additional data required to be captured by a VDR pursuant to Resolution MSC.163(78) Performance Standards For Shipborne Simplified Voyage Data Recorders (S-VDRs)¹, such as water depth, main alarms, rudder order and response, engine order and response, hull openings status, watertight and fire door status, accelerations and hull stresses, and wind speed and direction. See Resolution MSC.163(78) Performance Standards For Shipborne Simplified Voyage Data Recorders (S-VDRs), ¶ 5.4.²

On May 29, 2002, the IMO, recognizing the importance of the information captured by the VDRs, issued guidelines on ownership and recovery on VDR information. See MSC/Circ.1024 Guidelines On Voyage Data Recorder (VDR) Ownership and Recovery.³ The guideline states that the recovery of VDR information:

should be undertaken as soon as possible after an accident to best preserve the relevant evidence for use by both the investigator and the ship owner. As the investigator is very unlikely to be in a position to instigate this action soon enough after the accident, *the owner must be responsible, through its on-board standing orders, for ensuring the timely preservation of this evidence.*

Id. (emphasis added).

b. Incorporation of IMO requirements for maintaining VDR or S-VDR information by U.S. Coast Guard

As part of marine casualty investigations, the U.S. Coast Guard also requires that information captured by VDRs be maintained and secured if a vessel is involved in a marine casualty. 46 C.F.R. § 4.05-15(a), states:

The owner, agent, master, or person in charge of any vessel involved in a marine casualty shall retain such voyage records as are maintained by the vessel, such as both rough and smooth deck and engine room logs, bell books, navigation charts, navigation work books, compass deviation cards, gyro records, stowage plans,

¹ www.imo.org/blast/blastDataHelper.asp?data_id=22640

² www.imo.org/blast/blastDataHelper.asp?data_id=15536

³ www.imo.org/OurWork/Safety/Navigation/Pages/VDR.aspx

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