

Abstract

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Replay Software of Voyage Data Recorder for Real Marine Accident

replay software of Voyage Data Recorder is essential for a critical application, Voyage data recorder (VDR), popular name-black box, is used for recording all kinds of navigation information. The recorded data is used for analyzing causes of major and minor incidents happened during ships' voyage. Voyage Data Recorder, or VDR, is a data recording system designed for all vessels required to comply with the international maritime organization IMO's International Convention safety of life at sea SOLAS requirements [1] (IMO Res.A.861(20)) in order to collect data from various sensors on board the vessel. It then digitizes, compresses and stores this information in an externally mounted protective storage unit. The protective storage unit is a tamper-proof unit designed to withstand the extreme shock, impact, pressure and heat, which could be associated with a marine incident (fire, explosion, collision, sinking, etc). This research realizes the importance of obtaining these stored data and use it for the accident analysis, specially because of this paper is real case, it is represented by one of the team who extract the data and replay the software in a computer and monitor the real time operating status of the relevant device. This has been done by downloading and replaying the data of real black box for a ship which was sunk in red sea