



**ROYAL CANADIAN MARINE
SEARCH & RESCUE**
Saving Lives on the Water

Lessons Learned Report 2017-3

Incident Summary:

An RCMSAR DRV and crew were returning to base at night, in the dark, after engaging in a short training exercise with another RCMSAR station. The DRV's five crew members on-board met all RCMSAR crewing standards and were wearing appropriate PPE at the time. During the transit back to base, the DRV, which was travelling at high speed, struck the back end of a log boom under long tow. The log boom in question was appropriately lit & the tow boat master was not aware of the collision at the time. There were no crew member injuries and the vessel survived the collision with relatively minor hull deformation (no perforation).

The Coxswain of the vessel was overseeing an approved temporary Coxswain who was in place for the purpose of gaining experience training. At the time of the collision, both helm and navigation positions were occupied by relatively inexperienced crew members with more advanced crew members monitoring from aft positions.

Assessed Facts / Deductions:

- 1) The vessel was transiting at approximately 32 knots.
- 2) The navigator was not experienced and had little familiarization with the Multi-Function Display's used on the DRV.
- 3) The Coxswain and temporary Coxswain were actively monitoring the progress of the vessel, but, were using the smaller rear Multi-Function Display in split screen mode, limiting the adequate usage of both the GPS Plotter and Radar.
- 4) There was a significant amount of back scatter in the direction they were heading, making visual detection of the tug and boom more difficult

Incident Primary Causes:

There were three main factors that caused the incident:

1. Safe speed. The vessel was not being operated at a safe speed considering the environmental conditions and the experience level of the helmsman and navigator.



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2. Appropriate lookout. All RCMSAR vessels must maintain a proper lookout by all available means. Using a smaller Multi-Function Display in split screen mode hindered the leaderships ability to effectively keep watch over an inexperienced member who was seated at the designated navigational position. Environmental conditions (back scattered) made visual detection more difficult.
3. Crew assignment and supervision. The helmsman and navigator were both relatively inexperienced members. Having both front seats occupied simultaneously by relatively new crew members increased the risk associated with the vessels transit & require greater vigilance from all other crew on board.

Lessons to be learned:

- Multi-Function Display's must, at all time, be set to the appropriate ranges and display size to safely and effectively navigate in current environmental conditions.
- RCMSAR vessels should transit at speeds that are appropriate given the conditions and the experience of the crew.
- Coxswains must adequately assess the strengths and weaknesses of their crew and must provide development opportunities in a controlled environment that do not introduce additional risk to the vessel or crew.