

# ***NAVY FEARED FRIGATES EXCESSIVE NOISE MADE IT AN EASIER TARGET***

The noise generated by one of Canada's frigates was so excessive that navy officers worried for a time that it had become more vulnerable to torpedoes and other weapons that home in on sound, according to a military report obtained by the Citizen.

Royal Canadian Navy officials were scrambling last year to deal with the problem just as **HMCS Toronto** was getting ready to set sail for the Arabian Sea, a potentially high threat area for submarines operated by other nations.

At first, the navy thought that the excessive noise was being generated by stern flaps, a device installed on the Halifax-class frigates to reduce drag and improve fuel efficiency.

In December 2012, Chief of the Defence Staff Gen. Tom Lawson warned the Conservative government that the stern flaps had increased the level of noise generated by the warships. That, in turn, would allow enemy submarines and warships to more easily detect the frigates.



“The frequency and intensity of the tonals generated would allow acoustic sensors to both detect and identify the ship at ranges well in excess of the norm for the **Halifax Class**, and could also render the ship more vulnerable to acoustic-homing weapons,

” then-defence minister Peter MacKay was told in the report prepared by the navy and forwarded by Lawson. The noise was several times higher than what was normal for the frigates. To further complicate matters,

**HMCS Toronto** was setting sail in January 2013 for the Arabian Sea, an area that concerned the navy because of the potential submarine threat in the region. Iran, for instance, operates a number of Russian-built submarines.

The stern flap, which cost \$250,000 to build and install, was removed from **HMCS Toronto** before it headed out, according to the navy report obtained by the Citizen under the Access to Information law. But Department of National Defence spokeswoman Ashley Lemire said in an email to the Citizen that a review determined that, in fact, the stern flaps were not the cause of the noise on **HMCS Toronto**. Instead, the added noise was eventually attributed to “a maintenance activity undertaken during her modernization.” No other details were provided in the DND email. It did not explain why, if the flaps were not the problem, they were removed. “**HMCS Toronto’s** equipment has been reviewed and the elevated noise source has now disappeared,” Lemire stated.

“A one-time cost of \$685,000 was spent for the docking and stern flap removal.” **Toronto**, as well as **HMCS Halifax, Calgary, Montreal** and **Winnipeg** all had stern flaps installed.

Defence analyst Martin Shadwick said noise reduction is essential on the Halifax-class frigates, which have an anti-submarine warfare role. “When those ships were being built, the navy went to great lengths to keep the noise signature as low as possible,” said Shadwick, a strategic studies professor at York University in Toronto.

“Any increase in the acoustic signature in a naval ship is not good news.” Stern flaps have been used on other NATO ships to great success and without adverse acoustic signature affects, according to the navy report. The 12 **Halifax-class** patrol frigates are considered the backbone of the Royal Canadian Navy. They were commissioned between 1992 and 1996 and are going through a modernization program to improve their command and control systems, radar, weapons and other equipment.

The ships are in various stages of modernization, with some waiting for upgrades or undergoing modernization while others are being run through the paces to test the new equipment. In May, one of the frigates – **HMCS Regina** – had been operating in the Arabian Sea as part of a multinational counter-terrorism mission but was re-assigned to the Mediterranean where it joined NATO’s Standing Maritime Force. The ship was part of Canada’s response to the crisis in Ukraine.

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