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Evaluation of portable high-frequency sonars for diver identification

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Obtaining a positive identification is a critical step in most tiered harbour protection strategies for countering underwater intruders. It is generally recognised that sonar is one of the best tools for underwater imaging, however operating in a harbour environment presents challenges. As part of an on-going harbour protection research project, small easily portable high-frequency sonar systems are being investigated as a means to equip small response craft with intruder identification capability. Several systems are being considered, with the most comprehensive testing by DRDC to date being done on small Canadian-made sonars. Tests were conducted in local harbour waters in Halifax, Canada, and in La Spezia, Italy, through participation in the NATO Undersea Research Centre Response Against Diver Intrusions (RADI) joint trial, conducted in November 2007. A variety of small sonars and manned and unmanned response craft were used during the RADI trial. Evaluation of the performance of these devices for the task of diver identification in realistic conditions will be discussed.