



MARINE SECURITY OPERATIONS CENTRES

In 2004, Canada's National Security Policy mandated the creation of the Marine Security Operations Centres (MSOCs). The MSOCs are hubs, which accumulate, analyze, and distribute information on maritime activity off Canada's coasts. Two are housed in Canadian Forces Bases, in Halifax and Esquimalt, with a third monitoring the Great Lakes and St. Lawrence Seaway centre located in Ontario's Niagara region. While the Atlantic and Pacific centres are led by the Department of National Defence, they include representatives from the RCMP, Fisheries and Oceans Canada, the Canada Border Services Agency, and Transport Canada. This effective "Whole-of-Government" joint staffing enables effective cooperation and ensures that each department with a maritime safety and security mandate has a comprehensive picture of potential marine threats and that Canada's national response to any such threats is effective and avoids duplication.

Maritime domain awareness is essential for a nation with the world's longest coastline and the MSOCs play a critical role in monitoring and addressing a wide spectrum of safety and security threats. This means collecting and analyzing vast amounts of information from the marine environment and presenting a real-time picture of what is going on in maritime space on, adjacent to, or bordering a sea, ocean or other navigable waterway. This includes all related activities, infrastructure, people, cargo, vessels, or other means of transport. In support of this mission, the MSOCs quickly identify actual or potential threats to Canada's marine transportation system, share that information with relevant partners, and decide on an effective response

The delivery of software and hardware upgrades in early 2015 brought these centres up to full operational capability, when each of the core MSOC partners signed the MSOC Full Operational Capability (FOC) Certificate. Despite coming fully online in 2015, the data fusion centres had already been successfully integrating maritime intelligence for more than two years. In January 2016, that certificate was endorsed at the DND Project Senior Review Board and signed by Vice-Admiral Mark Norman, then Commander RCN. This means the operational and technical authority over the MSOC project has been transferred to the RCN, under the Directorate of Naval Operations and Plans.¹

The day-to-day work at the MSOCs is primarily focused on monitoring civilian activity and assisting government partners with civilian enforcement and regulatory mandates. This includes tracking ships suspected of drug trafficking, human smuggling, and illegal migration. The arrival in B.C. of 76 Sri Lankan Tamil men aboard MV *Ocean Lady* in October 2009 underscored the extent to which desperate people will go to improve their lives, and the extent to which unscrupulous people will exploit them for profit.² It also highlighted the need for maritime situational awareness and interdepartmental cooperation.

¹ Ryan Melanson, "Coastal MSOCs use Technology and Collaboration to Improve Maritime Picture, Royal Canadian Navy News and Operations (November 2016).

² "MSOCs – Guardians of the World's Gateways," *Canadian Naval Review*, BroadSides (May 2012).

Monitoring the commercial marine industry is an essential day-to-day task. Canada uses the world's oceans to import many of its daily needs, and export to countries around the world. Annually, the marine industry generates \$10 billion in economic activity for Canada and transports \$117 billion in international trade. The industry is responsible for 100,000 Canadian jobs that manage and move 97% of all non-U.S. international trade — 456 million tonnes of cargo annually.³ Tracking cargo vessels in and out of Canadian ports is the first step in ensuring their safety and security, while making sure that Canadian regulations are followed and commerce flows in an orderly fashion.

The MSOCs are also essential for monitoring Canada's valuable fishing grounds, tracking foreign and domestic fishing vessels to identify illegal activity, and ensuring that the country's Exclusive Economic Zones are respected. While enforcement in this area is the responsibility of Fisheries and Oceans Canada, the cooperation of other government departments is an essential enabling factor. During the mid-1990s the 'Turbot War' – a fishing dispute with Spain – saw a dramatic RCN response to Spanish overfishing. Canadian warships frequently undertake fisheries patrols carrying fisheries officers and the information from the MSOCS coordinates and enables these efforts.

While monitoring and policing traffic off Canada's coasts is essential, so too is assisting it when necessary. Maritime search and rescue is a responsibility of the Canadian Armed Forces, though can be undertaken by the Canadian Coast Guard or any other government department with assets able to reach an emergency. The MSOCs coordinate such efforts and provide the most effective response to SAR incidents across Canada's maritime space. The strategic location of MSOC East, with the watch floor located just steps away from the Regional Joint Operations Centre and very close to the Joint Rescue Coordination Centre, has also proved beneficial. Rear Admiral Newton highlighted the fact that, for SAR specifically, and when timing becomes critical in low light or bad weather, the added information means personnel can do less searching and more rescuing.⁴

While most of the MOSOCs' duties revolve around civilian support and monitoring, there is a clear and important conventional security rationale to possessing a real-time situational awareness of foreign activity off Canada's coasts, which the MSOCs' cutting edge technology and data sharing services provide. When appropriate, elements of this operational picture are also shared with other international agencies and military allies, providing support to NATO allies and to the defence of North America.

From the MSOC facility at Niagara-on-the-Lake the RCMP (as lead agency) also monitors the Great Lakes and St. Lawrence Seaway, a waterway covering more than 3,700 kilometers and connecting more than 50 ports.⁵ From here, the interdepartmental team works with the US Coast Guard to monitor and police those important bodies of water. In the inland waters, the RCMP and Canadian Border Services are primarily focused on small vessel threats relating to organized crime, smuggling, and illegal border crossing.⁶

To achieve their mission, the MSOCs employ military-grade tracking and information fusion technology. With its Long-Range Identification and Tracking system, the centres collect and

³ Ibid.

⁴ Melanson.

⁵ Canada, RCMP, "Horizontal Evaluation of the Great Lakes and St. Lawrence Seaway Marine Security Operations Centre," (April 2015).

⁶ Ibid.

store data from vessels wherever they are on the high seas. This capability allows MSOCs to identify and monitor approximately 1,000 vessels each day, from a distance of over 2,000 nautical miles. Further software improvements coming to the watch floor will help to more easily detect anomalous behaviour at sea, like deviations from planned routes or if a ship suddenly comes to a halt. The coastal centres are also equipped with innovative web-based tools that allow the participating agencies and departments to collaborate with one another. Analysts can pool their resources, taking the best information from their respective sources to form a complete assessment of a maritime threat. By creating a more complete picture of the risks, analysts can effectively recommend a course of action to the appropriate chain of command so that a suitable response can be planned.⁷

⁷ Canada, “Marine Security Operations Centres Keep Canadian Waters Safe,” *The Maple Leaf* (November, 2016).