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## CORE CAPABILITIES OF A MIDDLE-POWER NAVY

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**JCSP 47**

### Service Paper

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**CORE CAPABILITIES OF A MIDDLE-POWER NAVY**

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## CORE CAPABILITIES OF A MIDDLE-POWER NAVY

### AIM

1. This service paper aims to discuss and recommend the core capabilities that a medium-power navy, such as the Royal Canadian Navy (RCN), must retain to be general-purpose and combat effective.

### INTRODUCTION

2. This service paper will first discuss the difficulty in defining what a *core* capability is, and how that concept compares to the broader concept of capabilities. It will then propose, explain, and justify those core capabilities that a middle power navy should have to be general-purpose and combat effective. Finally, the paper will make a recommendation on whether the RCN meets those core capabilities, and if it can improve.

### DISCUSSION

#### Core Capability Definition

3. What is a naval *core* capability? Is it fundamentally different than other naval capabilities? Are the traditional areas of warfare, anti-submarine warfare (ASW), anti-surface warfare (ASuW), and anti-air warfare (AAW) core capabilities of a navy? Do maritime security operations (MSO), or humanitarian assistance and disaster relief (HA/DR) count as core capabilities? International Relations Professor Ken Booth notes that the answer to the question is more complicated now than it was when phrases such as “prepare for ‘another Trafalgar’ or ‘the destruction of the enemy’ were perfectly adequate [answers].”<sup>1</sup> Furthermore, the difficulty in establishing just what constitutes a core capability is something that the United States Navy (USN), the largest navy in the world, struggles with as well. Throughout the 20<sup>th</sup> century, several USN publications have identified as few as three and as many thirteen concepts that they each proclaim as core capabilities.<sup>2</sup> To assist in the discussion, this paper will utilize the four most prevalent core capabilities in those USN publications; Sea Control, Forward Presence, Deterrence, and Power Projection, and discuss which ones are important to a middle-power navy.

4. Those four core capabilities were chosen for this paper as many of the other capabilities listed in the various USN publications were more appropriately categorized as missions or tasks enabled by one of the fundamental four core capabilities. For example, the 2007 US Navy Strategic Plan lists HA/DR and Air and Missile Defence as core capabilities.<sup>3</sup> As we will discuss, this paper considers HA/DR as a mission that is enabled by a core capability, and that Air and Missile Defence enables a core capability. This is a common theme among each of the four core capabilities. Each has elements that enable it, and each core capability, in turn, enables various

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<sup>1</sup> Ken Booth, *Navies and Foreign Policy* (Florence, United Kingdom: Taylor & Francis Group, 2014), 172.

<sup>2</sup> Jerome J. Burke et al., “Assessment of Naval Core Capabilities” (Fort Belvoir, VA: Defense Technical Information Center, January 15, 2009), 9, doi:10.21236/ADA495740.

<sup>3</sup> Ibid.

missions and operations. The first, Sea Control, is unique amongst the four discussed in this paper as it is a requirement to enable the three others.

## Sea Control

5. Any naval force, of any size, requires some measure of Sea Control to be effective. NATO defines Sea Control as “the condition that exists when one has freedom of action within an area of the sea for one's own purposes for a period of time in the subsurface, surface and above-water environments.”<sup>4</sup> Sea Control is a navy's ability to go to sea and conduct operations, regardless of the wishes of an adversary. Freedom of action and the ability to use an area of the sea for one's purpose is fundamentally necessary to be able to conduct any naval operations. However, whereas a great power navy such as the USN can influence and maintain Sea Control over vast areas, a middle-power navy need only be able to exert that Sea Control to their local area for the duration that they need it for. That local area could be as small as the range of the self-defence weapons of a ship, or as expansive as the operating area of a naval task group, but without Sea Control, those naval forces cannot be effective.

6. To say that a naval force has achieved Sea Control in an area of any size means that it can operate freely. To be able to operate freely implies that it must be capable of defending itself, which is the first and key enabler for this core capability. Thus, any navy, including a middle-power navy such as the RCN, must be able to defend itself from not only the three traditional threat domains of sub-surface, surface, and air, but also against new and emerging threats such as cyber.<sup>5</sup> What is important is that the self-defence capability exists, not necessarily the form it takes. It is less important what type of missile a ship carries, or even whether it carries missiles at all. What is important is whether the ship or task group can operate in an area and can act in self-defence. To do so requires a knowledge of the world around it, which is the second key enabler to Sea Control.

7. Self-defence is impossible without understanding where potential threats are coming from. This includes both above water and beneath the water, but now also in the information or cyber domain. This knowledge is gained by utilizing an intelligence, surveillance, and reconnaissance (ISR) capability, which in turn enables their self-defence function and Sea Control. In addition to kinetic and information threats, understanding the physical world around them in terms of hydrography and meteorology is critical to permit freedom of movement. Hydrography, the knowledge of the water column and seafloor beneath the ship, permits the safe navigation of a naval force and enhances its ability to defend itself from subsurface threats. Meteorology affects everything a navy can do, from launching and recovering aircraft in support of ISR and ASW to the safety of the forces themselves. The damages Typhoon Cobra caused to USN Task Force 38 in 1944 are a harsh reminder of the importance of a naval force knowing the environment they are operating in.<sup>6</sup>

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<sup>4</sup> North Atlantic Treaty Organization, *AAP-06 NATO Glossary of Terms and Definitions (English and French)* (Brussels: NATO Standardization Office, 2020), 115.

<sup>5</sup> Eyal Pinko, “Maritime Cyber Threats and Challenges,” *National Security & the Future* 20, no. 1/2 (January 2019): 67.

<sup>6</sup> Bob Drury and Thomas Clavin, *Halsey's Typhoon: The True Story of a Fighting Admiral, an Epic Storm, and an Untold Rescue*, 1st ed. (New York: Atlantic Monthly Press, 2007). Task Force 38 sailed through Typhoon

8. If a navy were incapable of any of the subsequent core capabilities, it could still be an effective defence force for a nation. Sea Control alone enables some of the traditional roles of a naval force, notably coastal defence and maritime domain awareness (MDA). Ultimately, an ability to exercise Sea Control in some capacity must be a core capability of any sized navy, from small coastal defence navies to a great power navy like the USN. Furthermore, a navy's ability to exercise Sea Control enables each of the three other core capabilities, and importantly the concept of Forward Presence.

## Forward Presence

9. Forward Presence is the general state of naval forces deployed away from home waters, facilitating a quick and appropriate response to developing situations.<sup>7</sup> This is the first core capability that distinguishes a small, coast navy from a middle-power navy. Whereas a coastal defence navy such as the Israeli Navy operates primarily near to home waters, a middle-power or greater sized navy needs to have the capability to deploy at much greater distances for extended periods.<sup>8</sup> Once capable of exerting some measure of Sea Control, a navy requires some form of logistical support to be able to deploy for extended periods. There are two methods navies can use to resupply abroad: at-sea replenishment, or the use of neutral or friendly ports.

10. A ship or naval task group without a replenishment capability has only a limited amount of time that it can remain at sea before it requires fuel or food. To resupply, a naval force can either proceed into a neutral or friendly port to refuel and embark rations, or it can have a replenishment ship do that for them while they remain at sea. In either event, a middle-power navy looking to be able to exert a Forward Presence needs to be able to reprovision their forces. Having ports available ships to proceed alongside, whether it is the naval forces directly or via a resupply vessel, is required to be able to do so. But a navy able to exert a Forward Presence capability has access to a much wider scope of missions that it can perform.

11. Once successfully deployed away from coastal waters, a navy can be utilized in many roles, including defence diplomacy, HA/DR, MSO, and traditional combat operations.<sup>9</sup> Particularly for a medium-power navy such as the RCN, defence diplomacy is often the primary mission for deployed forces outside of periods of conflict.<sup>10</sup> While deployed, these naval forces are readily available and in a position to conduct HA/DR, as was demonstrated by a naval task group consisting of New Zealand, Canadian, US, and Australian warships which assisted in the disaster relief efforts following an earthquake in Kaikoura, New Zealand in 2016.<sup>11</sup> Finally,

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Cobra at the cost of nearly 800 dead, 80 injured, 3 destroyers capsized, a dozen ships rendered inoperable, and 146 aircraft lost or damaged.

<sup>7</sup> Geoffrey Till, "A Cooperative Strategy for 21st Century Seapower: What's New? What's Next? A View From Outside," *Defence Studies* 8, no. 2 (June 1, 2008): 243, doi:10.1080/14702430802099417.

<sup>8</sup> Israeli Defence Force, "Israeli Navy," accessed February 6, 2021, <https://www.idf.il/en/minisites/israeli-navy/>.

<sup>9</sup> Department of National Defence, *Strong, Secure, Engaged: Canada's Defence Policy* (Ottawa: Government of Canada Publications, 2017), 34, [http://publications.gc.ca/collections/collection\\_2017/mdn-dnd/D2-386-2017-eng.pdf](http://publications.gc.ca/collections/collection_2017/mdn-dnd/D2-386-2017-eng.pdf).

<sup>10</sup> Ryan Bell, "Canadian Maritime Defence Diplomacy: Canada's Ambassadors at Sea" (Masters of Defence Studies, Canadian Forces College, 2020), 2, <https://www.cfc.forces.gc.ca/259/290/22/286/bell.pdf>.

<sup>11</sup> Guy Toremans, "International Naval Contribution to New Zealand Earthquake Relief Operation Concludes," *Jane's Navy International* 122, no. 1 (2017).

Forward Presence fully enables traditional combat operations, both maritime and jointly, by permitting a naval force to operate away from home waters in an offensive posture rather than purely defensively at home.

12. Forward Presence is the first core capability that differentiates a small, coastal defence navy from a more capable middle-power, deployable navy. Forward Presence, enabled by an ability to exert Sea Control, enables the third core capability of Deterrence.

## Deterrence

13. Deterrence “includes the conventional ability to prevent war by dissuading potential aggressors.”<sup>12</sup> Medium-power navies need to present themselves as an undesirable target to potential aggressors. Due to their limited size relative to those potential aggressors, medium-power navies can rely on two forms of deterrence: a credible submarine force and coalition integration. Each of these can contribute to discouraging a potential aggressor from conducting combat operations against a medium-power navy.

14. A submarine at sea, by its very nature, is difficult to locate. That presents a challenge for enemy operational planners, as the possibility of a submarine in an area limits their local Sea Control and diverts resources and attention towards locating it. As the Argentinian Navy found out in 1982, a single unlocated submarine has the potential to remove significant forces from your order of battle.<sup>13</sup> However, establishing and maintaining an effective submarine programme is an expensive endeavour, and there is another, complementary form of deterrence available to medium-power navies that might align more closely with a nation’s political objectives, a navy’s ability to operate within coalitions.<sup>14</sup>

15. Interoperability, the measure of the degree to which various navies can operate together, is a key enabler to the core capability of deterrence.<sup>15</sup> The ability to have senior officials of coalition nations working towards a singular goal, for navies to be able to operate together under a common command and control structure using similar doctrine and procedures, and for individual units to be interchangeable with coalition partners permits the maximum efficiency and economy of force.<sup>16</sup> As a medium-power navy, being able to integrate into a coalition task group provides a greater combined force than would be capable by two separate, independent task groups, and is a less desirable target for a potential aggressor.

16. Deterrence does not directly enable a naval mission, but it does reinforce a navy’s ability to exert Sea Control. By deterring an opposing force from opposing a friendly navy, the friendly navy’s ability to perform self-defence is increased, as the threat has been reduced. This

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<sup>12</sup> Till, “A Cooperative Strategy for 21st Century Seapower,” 243.

<sup>13</sup> Sandy Woodward and Patrick Robinson, *One Hundred Days: The Memoirs of the Falklands Battle Group Commander*, 3rd ed. (London: HarperCollins, 2003), 112. HMS *Conqueror* located and sank the Argentinian cruiser ARA *Belgrano* during the Falklands War, eliminating one half of a pincer movement threatening the British naval task group.

<sup>14</sup> Jan Joel Andersson, “Submarine Capabilities and Conventional Deterrence in Southeast Asia,” *Contemporary Security Policy* 36, no. 3 (September 2, 2015): 474, doi:10.1080/13523260.2015.1111648.

<sup>15</sup> Steven Paget, *The Dynamics of Coalition Naval Warfare: The Special Relationship at Sea* (Milton, United Kingdom: Taylor & Francis Group, 2017), 2.

<sup>16</sup> *Ibid.*, 3.

strengthens their Sea Control, forming a mutually supportive, positive feedback loop of Sea Control and Deterrence. That feedback can continue to a point in where Deterrence becomes purely offensive, rather than defensive, at which point it becomes Power Projection, the final core capability.

## **Power Projection**

17. Power Projection is a navy's ability to "access, project, and sustain power ashore."<sup>17</sup> While most USN documentation does not refer to it directly, this core capability implies the ability to conduct two naval missions: strike, and amphibious operations. Strike is an attack intended to inflict damage on or destroy an objective.<sup>18</sup> Similarly, amphibious operations involve the landing of ground forces from a maritime environment to attack or sustain power ashore. This core capability is enabled by a robust strategic sealift, long-range ISR capabilities, a targeting cycle, and purpose-built amphibious vessels. Power Projection is a core capability that would be at the upper limits of the abilities of most middle-power navies, if they were capable of them at all, while being firmly within the capability of a great-power navy.

## **CONCLUSION**

18. The four core capabilities described above, Sea Control, Forward Presence, Deterrence, and Power Projection, can be used to explain what a navy needs to be able to conduct operations. Each one builds upon the others and can be used to describe the core or fundamental capabilities that a navy of any size might need. A small, coastal defence navy might only need to be capable of Sea Control in a limited area. A large, great power navy might utilize the full spectrum of core capabilities to include Power Projection.

19. However, a medium-power navy like the RCN has three core capabilities that must be maintained to be general-purpose and combat effective. It must be able to operate freely, which requires some level of Sea Control. It must be able to operate away from home waters, and thus requires the ability to maintain a Forward Presence. Finally, it must be able to dissuade aggression from a potential adversary, and so requires some form of conventional Deterrence capability. These three core capabilities enable the full spectrum of naval missions to be conducted, at home or abroad, independently or with coalition partners, and on an ongoing basis.

## **RECOMMENDATION**

20. The RCN is effective in all three core capabilities required by a medium-power navy. The modernized *Halifax*-class frigate can defend itself when operating independently, or as part of a task group, and has sufficient ISR capabilities to facilitate that self-defence. The RCN exerts local Sea Control around its local area when it operates at sea. Supported by MV *Asterix*, and eventually two *Protecteur*-class Joint Support Ships, a Canadian Naval Task Group can operate anywhere in the world, for extended periods. The RCN is capable of exerting a Forward Presence. Finally, with four *Victoria*-class submarines and a robust network of alliances and

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<sup>17</sup> Till, "A Cooperative Strategy for 21st Century Seapower," 244.

<sup>18</sup> North Atlantic Treaty Organization, *AAP-06*, 123.



partnerships, Canada is an uninviting target of overt, foreign, military aggression. The RCN exerts a Deterrence capability for Canada.

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