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THE ROYAL CANADIAN NAVY'S INTELLIGENCE FUNCTION: IN LINE, OFF FOCUS

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Exercise *Solo Flight*

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THE ROYAL CANADIAN NAVY'S INTELLIGENCE FUNCTION: IN LINE, OFF FOCUS

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The end of the Cold War has engendered a very challenging security environment, especially in the maritime domain. No longer facing the threat of the Soviet Navy, the Royal Canadian Navy (RCN) had to transition from the demands of conducting conventional "Blue Water" operations against a known foe to missions involving the potential use of force to enforce legal mandates in complex environments.[1] Living up to the oft cited dictum that "Flexibility is the Key to Sea Power", the RCN has displayed an acute ability to adapt to these new circumstances in a broad array of missions ranging from its involvement in conventional conflicts to Operations Other Than War (OOTW). While there is little doubt that the RCN's drive and determination allowed it to carry the day in this wide spectrum of challenging circumstances, a factor that has been overlooked until very recently is that the RCN's flexibility was in large part enabled by one of its smallest functions: its intelligence establishment.

This paper will assess the RCN intelligence architectures' ability to meet its operational requirements for Force Generation (FG) and Force Employment (FE). [2] The arguments presented will demonstrate that the RCN's intelligence architecture is marginally capable of meeting its obligations in support of the RCN's FG and FE roles despite the appearance that, at face value, it is meeting all of its remits. In building the

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[1] Ivan T. Luke, "Naval Operations in Peacetime," *Naval War College Review* 66, no.2 (Spring 2013): 11, http://eds.b.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=095b7bdb-6623-4cd1-9f56-bcafa2e66dcd%40sessionmgr115&vid=1&hid=108.

[2] For the purpose of this paper, Force Employment will be defined as "the application of allocated military means to achieve specified objectives or effects through activities such as operations, defence diplomacy, and unilateral, bilateral, or multilateral defence activities." Conversely, Force Generation will be defined as "the process of organizing, training, and equipping forces for employment." (Department of National Defence, B-GJ-005-000/FP-001, *Canadian Joint Forces Publication 01 – Canadian Military Doctrine* (Ottawa: National Defence Headquarters, 2011), 5-7, 5-9.)

case to support this statement, this paper will first discuss the contemporary maritime operating environment to highlight the need for intelligence to prevail within it. The paper will then turn its attention towards determining whether Naval Intelligence is a distinct sub-set of military intelligence before describing the roles and responsibilities of the RCN with regard to FG and FE for domestic and international operations in order to determine its operational intelligence requirements. The essay will subsequently describe and analyze the RCN's intelligence construct and its ability to meet its obligations for FG and FE. The paper will conclude by highlighting the fact that the RCN's leverage of its intelligence construct in meeting its operational requirements entails a high degree of risk.

THE CONTEMPORARY NAVAL OPERATING ENVIRONMENT

Despite their inherent traditional conventional warfare role, naval forces are regularly called upon to conduct operations that do not focus on the use of force to protect the interests of their country. These missions typically involve varied degrees of activities spanning the realm between "peacetime management" and "chaos management".[3] While these missions have been, to some extent, traditional naval missions, their impact in the contemporary operating environment is significant as "naval actions short of war can have strategic effects like never before, and the operating

[3] Peacetime management consists of the conduct of forward presence and peacetime engagement "activities before a crisis exists, or at least before it has crossed the threshold into armed violence." Chaos management, for its part, mainly consists of operations such as Humanitarian Assistance, Peacekeeping, Peace Enforcement or more conventional missions where naval forces must be ready and willing to use force. (Alberto Coll, "The Role of the Naval Service in Operations Other Than War: Peacetime Engagement and Chaos Management," in *The Role of Naval Forces in 21st-Century Operations*, ed. Richard H. Shultz Jr and Robert L. Pfaaltzgraff Jr (Washington, DC: Brassey's, 2000), 86-87.)

environment is increasingly complex."[4] This increased complexity warrants an in-depth knowledge of the characteristics of the operating environment and all the factors that evolve within it, especially its threat aspect.

The nature of the threat posed to warships has evolved in the contemporary maritime environment as it is no longer limited to conventional naval forces. Coalition navies face a threat posed by naval forces equipped with smaller vessels that

> "are highly competent in their role and pose a significant threat to expeditionary forces operating in their zone of interest. These navies will use full-spectrum maritime capabilities in a synchronized and coherent way to achieve their aim and get an advantage over their adversary."[5]

In addition to the threat posed by such navies, naval force also have to contend with increasingly sophisticated non-conventional and asymmetric actors such as transnational organized criminal and terrorist organizations using vessels of all sizes as means of transportation for weapons, illicit goods, or as weapons themselves.[6] The evolution of contemporary naval threats and targets of interest has led to the realization that "the [identification of the] threat has become vastly more difficult. […] The Intelligence, Surveillance, Target Acquisition and Recognition (ISTAR) problem has just become a vastly different challenge in the maritime domain."[7] As previously suggested, the acute nature of this challenge has manifested itself in a re-emerging type of operations for naval forces: littoral operations.

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[4] Ivan T. Luke, "Naval Operations in Peacetime," 12.

[5] John F.G. Wade, "Navy Tactics, Doctrine, and Requirements for Littoral Warfare" (Master's Thesis, Naval Post-Graduate Course, 1996), 26 -27, http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA313697.

[6] Ivan T. Luke, "Naval Operations in Peacetime," 13.

[7] David Sloggett, *The Anarchic Sea* (London: Hurst & Company, 2013), 13.

Naval forces operating in or near the littoral environment face a challenge consisting of "much more than a mere change of mission. [...] the level of threat against surface ships—which has become significantly higher in general because of a number of developments of recent decades—has become especially high in the littoral."[8] Under these circumstances, warships are increasingly at risk due to the threat posed by sophisticated land-based ISR and weapons systems, aircraft equipped with weapons affording a high degree of precision and lethality, and conventional submarines.[9] Ships in port are also facing an increased threat, both from conventional strikes launched from extended ranges or from unconventional forces and terrorist actors.[10] In addition to the potential threat they face, "[n]aval Forces [operating in the littoral environment] must understand and adapt to this specific battlespace [sic] environment to maximise the performance of platforms, sensors, weapons, and personnel."[11] The increased level of risk faced by naval forces operating in the littoral warrants an in-depth knowledge of the threats and environmental hazards prevailing in this challenging operational context.

The complexity of the contemporary maritime operating environment represents a significant challenge to warships involved in missions both on the high seas and in the littoral environment. Naval forces operating under these conditions require dedicated

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[8] Yedidia Ya'ari, "The Littoral Arena: A Word of Caution," *Naval War College Review* 67, no.3 (Summer 2014): 81, http://search.proquest.com/docview/1530094922/fulltextPDF/5CFF39DE62854D88PQ/1?accountid=9867.

[9] Stefan Nietschke, "Littoral Warfare: A New Name for an Old Mission?", *Naval Forces* 23, no.3 (2005): 18-19, 26-27, http://search.proquest.com/docview/199347515/fulltextPDF/48684A5E115A44B1PQ/1?accountid=9867.

[10] Wayne P. Hughes, "A Close Look at the Operational Level of War at Sea," *Naval War College Review* 65, no.3 (Summer 2012): 33, http://calhoun.nps.edu/bitstream/handle/10945/39572/inc_NWC_Summer2012Review-Hughes.pdf?sequence=1.

[11] Stefan Nietschke, "Littoral Warfare: A New Name for an Old Mission?", 16.

intelligence support to obtain the knowledge they require regarding the potential threats and adversaries they face as well as the characteristics of the various aspects of the maritime domain in their Area of Operations (AO). Having determined the need for access to naval intelligence during contemporary naval operations, let us know discuss what this capability entails.

NAVAL INTELLIGENCE

The role of the military intelligence function is "to provide the commander with [a] greater understanding about the enemy, weather and environment in order to allow decision making."[12] In meeting the Commander's requirements, the intelligence function strives to provide an enhanced level of knowledge by exploiting information on potential adversaries and the operating environment that has been derived from multiple sources and by enhancing that information with predictive assessments to enable effective decision making.[13,14] In a similar vein, naval intelligence provides "a fused, allsource [sic] picture of the battlespace to support operations at sea, from the sea, and ashore."[15] Given these definitions, it can be argued that there are little differences between these two types of intelligence besides the naval nexus of the intelligence itself; both functions achieve their aim through the provision of Indicators and Warning (I&W), Basic

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[12] American, British, Canadian, Australian and New Zealand Armies' Program, ABCA Publication 325, Edition 5, *Coalition Intelligence Handbook* (Arlington, VA: ABCA Program Office, 2013), 2-1.

[13] United States Department of Defense, *Joint Publication 2 – Joint Intelligence* (Washington, DC: Department of Defense, 22 October 2013), 2-2.

[14] It is important at this point to make a distinction in the fundamental difference between information and intelligence. Information is defined as the "assimilation of data that has been gathered, but not fully correlated, analyzed, or interpreted" while Intelligence consist of "the product resulting from the collection, exploitation, processing, integration, analysis, evaluation, and interpretation of available information concerning foreign countries or areas." (United States Department of the Navy, *Naval Doctrine Publication 2 – Naval Intelligence* (Washington, DC: Department of the Navy, 1994), 4.)

[15] *Ibid.,* 4.

Intelligence, Current Intelligence and Estimative Intelligence.[16] The same argument can be made regarding the role of naval intelligence during the FG and FE of naval forces.

INTELLIGENCE SUPPORT TO FG AND FE

Intelligence is a key enabler during the FE and FG process. Through its support to operational planning and the preparation of deploying forces, the naval intelligence function provides in-depth knowledge of the expected threat and characteristics of the operational environment during the preparation phase of a planned operation or provides I&W regarding the potential threats and hazard that could be encountered during the FG of High Readiness contingency forces.[17] The role of the intelligence function during FE is to provide information and intelligence to deployed forces at all level of operations to enable their situational awareness and their thorough understanding of the adversary and the operational environment. The intelligence function must also inform commanders at all levels, and by extension their staff, on the best use of their intelligence collection and analysis capabilities to meet their operational intelligence requirements during FE.[18]

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[16] Basic Intelligence is defined as "Intelligence that provides reference material for planning and a basis for processing subsequent information. It consists of background about any relevant subject and is maintained in databases that are continually updated. It may contain intelligence on such things as adversary capabilities, deployments, leadership history and training. The principle [sic] uses of basic intelligence are to set the scene at the outset of operations and explain relatively unchanging facts such as battle space terrain and weather." Basic intelligence provides the foundational knowledge required for the development of Current Intelligence (time-critical, perishable intelligence that concerns the current situation and events that have undergone limited analysis, possibly rendering more fidelity than basic intelligence) and Estimative Intelligence (forward looking assessment and predictive judgment about future foreign developments, potential courses of action, and their implications). (Department of National Defence, B-GJ-005-200/FP-002, *Canadian Joint Forces Publication 2-0 – Intelligence* (Ottawa: National Defence Headquarters, 2011), 2-4, 2-5.)

[17] Department of National Defence, *Canadian Joint Forces Publication 2-0 – Intelligence*, 4-1.

[18] *Ibid.,* 5-1.

The importance of the intelligence function is arguably equally important during the FG and FE of naval forces since warships routinely train and operate in waters distant from their home ports where they face potential threats on a continued basis.[19] The inherent flexibility of naval forces can also result in their dynamic retasking from FG activities to operations, thus putting a greater further emphasis on the need for continued intelligence support to these two activities. Although military and naval intelligence have very similar characteristics in both their general role and their function in support of the FG and FE activities, the actual focus of the naval intelligence function differs from that of military intelligence.

PARTICULARITIES OF NAVAL INTELLIGENCE

The main characteristic that differentiates naval intelligence from the other intelligence specialties is the need to constantly track and discriminate the identity of vessels and integrate this information in the operating picture. This need represents the foundational requirement that enables any naval forces' ability to operate in the full spectrum of naval operations. Another distinguishing feature of naval intelligence lies in the fact that

> "Naval forces have unique, multidimensional intelligence requirements. Countering threats to air, surface, subsurface, and landing forces requires in-depth knowledge of the threat, weather, hydrography, terrain, ports, and airfields. The sophisticated nature of the threat in naval warfare causes naval forces to demand detailed technical intelligence on an adversary's weapon systems."[20]

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[19] United States Department of the Navy, *Naval Doctrine Publication 2 – Naval Intelligence*, ii.
[20] *Ibid.*, 43.

This distinguishing feature of naval intelligence has been described by Rear-Admiral Porterfield, the longest serving United States Navy (USN) Director of Naval Intelligence, as the "operationalizing of intelligence" and described as "OpIntel" by the USN.[21]

OpIntel is best defined as the timely provision of tailored intelligence through the fusion of all-source information on the disposition, strength, capabilities and likely intent of the enemy to support the planning and conduct of naval operations.[22,23] By extension of its focus on OpIntel, the naval intelligence effort is also constantly centered on targeting.[24] This particular aspect of naval intelligence is critical given the stand-off nature of contemporary naval warfare due to the advent of long-range precision guided munitions employed during the engagement of naval forces or targets ashore. Consequently, the high degree of lethality and precision of these weapons generate a high level of demand for Intelligence, Surveillance, and Reconnaissance (ISR) given "[t]he need to identify targets, determine a pattern of life in an area of interest, and monitor target areas in order to minimize collateral damage".[25]

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[21] Richard B. Porterfield, "Naval Intelligence: Transforming to Meet the Threat," *United States Naval Institute Proceedings* 132, issue 9 (September 2005): 13, http://search.proquest.com/docview/205978393/fulltext/7014C5BA34AD4233PQ/1?accountid=9867.

[22] Christopher Ford and David Rosenberg, *The Admirals' Advantage: U.S. Navy Operational Intelligence in World War II and the Cold War* (Annapolis: Naval Institute Press, 2005), 1-5, 61.

[23] The interesting characteristic of the OpIntel function is that it consists of a process (all-source fusion and analysis) and a product (knowledge of the enemy's disposition and likely intent). (Jason Hines, "Restore the Foundation of Naval Intelligence," *United States Naval Institute Proceedings* 131, issue 2 (February 2005): 37, http://eds.a.ebscohost.com/ehost/detail/detail?sid=9ab1f690-515e-4c58-8d92-1676f384b36a%40sessionmgr4002&vid=0&hid=4113&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=15938829.)

[24] Dan Shanower, "Naval Intelligence Must Focus on Time-Critical Targeting," *United States Naval Institute Proceedings* 126, issue 10 (October 2010): 102, http://search.proquest.com/docview/205994731?pq-origsite=summon.

[25] Scott Bishop, "Libya and the Lessons of Naval Power," *Canadian Naval Review* 8, Number 4 (Winter 2013): 17, http://www.navalreview.ca/wp-content/uploads/public/vol8num4/vol8num4art4.pdf.

Despite their ability to deliver effects over considerable distances, naval actions carried out by individual ships, task groups, and even naval formations, remain tactical-level actions normally intended to achieve operational or strategic effects. Naval intelligence, both from an OpIntel and targeting standpoint, maintains a current and tactical-level focus since it is usually at that level that naval forces are called upon to act. However, many detractors to the adoption of such an overly tactical current intelligence focus to military operations argue that

> "events today move so rapidly that even very accurate intelligence can often be too slow to have a timely influence on the course of a battle. Intelligence can make its greatest contribution before [sic] the fighting starts by providing the commander with the best possible data on his [or her] enemy's order of battle, intentions, weapons, performance, defense systems, morale and so on."[26]

This view of the relative importance of intelligence runs contrary to the commonly-held belief that Current Intelligence should be the focus of Naval Intelligence and that knowledge of the enemy will be acquired over time. The two facets of this argument highlight the actual importance of intelligence in general, and naval intelligence in particular, thus suggesting that a balanced approach between Basic and Current Intelligence is required in order to enable both the FG and FE of naval forces.

The naval intelligence function provides dedicated support to FG and FE activities in a fashion similar to the military intelligence function in general, albeit with a strong emphasis on tactical-level and technical intelligence given its OpIntel focus. Although Current Intelligence is undoubtedly important during FE, Basic Intelligence, as well as I&W, remains critical during FG and the planning portion of FE. Based on this

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[26] Michael I. Handel, "Intelligence and Military Operations," *Intelligence and National Security* 5, issue 2 (1990): 66, http://www.tandfonline.com/doi/pdf/10.1080/02684529008432047.

definition of the role and purpose of naval intelligence, we are prepared to consider the roles of the RCN for FG and FE and its associated intelligence requirements in the fulfillment of these missions.

THE RCN'S OPERATIONAL INTELLIGENCE REQUIREMENTS

The role of the RCN is to "provide combat capable general-purpose maritime forces to meet Canada's defence policy objectives."[27] In order to achieve its FG and FE mandates, the RCN adopted a "One Navy" structural model centered on three main headquarters with its Naval Staff Headquarter (NSHQ) focusing on Force Management (FM), Force Development (FD) and FG challenges; its Maritime Forces Atlantic Headquarter (MARLANT) principally focusing on the planning and execution of FE activities; and its Maritime Forces Pacific Headquarter (MARPAC) principally focusing on the planning and execution of FG activities.[28] This relatively clear delineation of FG and FE responsibilities only applies for expeditionary operations as both MARLANT and MARPAC play a role in both the FE and FG of maritime forces for domestic and continental operations.

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[27] Department of National Defence, B-GJ-005-000/FP-001, *Canadian Joint Forces Publication 01 – Canadian Military Doctrine* (Ottawa: National Defence Headquarters, 2011), 5-10.

[28] Royal Canadian Navy, *Commander's Guidance and Direction to the Royal Canadian Navy: Executive Plan – 2013 to 2017* (Ottawa: National Defence Headquarters, n.d.), 6, (DWAN) http://rcn-mrc.mil.ca/repository/feat-fonc/RCN_Executive_Plan-eng.pdf.

DOMESTIC AND CONTINENTAL OPERATIONS

The Command and Control (C^2) of Her Majesty's Canadian (HMC) Ships during domestic operations is somewhat challenging depending on whether they are operating under a routine national mission or local contingency tasks given the fact that

> "The [Canadian Armed Forces (CAF)] employs geographically based [Regional Joint Task Forces (RJTFs)] and national [Joint Force Air Component Commander (JFACC)] and [Maritime Component Commander (MCC)] as a means of exercising command over the anticipation, preparation for and conduct of operations in support of provincial, territorial and federal safety and security partners. For routine operations that are principally air or maritime in nature and are not in direct support to municipal, territorial or provincial authorities, the component method is typically used, with Commander 1 Canadian Air Division acting as standing JFACC, and Commander Maritime Forces Atlantic acting as standing JFMCC."[29]

The situation is further complicated by the fact that both Commander MARLANT and MARPAC respectively hold command responsibility over Joint Task Force Atlantic and Pacific.[30] Commander MARLANT, as the CJOC MCC, must also be ready at all times to act as the lead actor in the defence of Canada and North America in the maritime domain, either in a supporting or supported capacity to combined Canadian-American defensive operations, or as an enabler to Other Government Departments (OGDs) efforts during maritime security and safety operations.[31] Finally, both MARLANT and MARPAC remain liable for the maintenance of situational awareness over all of

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[29] Canadian Forces Warfare Centre Joint Doctrine Branch, *Joint Doctrine Note 02-2014 – Command and Control of Joint Operations* (Ottawa: National Defence Headquarters, 2014), 20.

[30] In this role, both MARLANT and MARPAC must be ready to assume the command and control of forces allocated to JTFA and JTFP during the conduct of domestic operations, which also entails providing them with the intelligence support their require, while also remaining liable to act as the MCC for other RJTFs that do not possess the requisite level of expertise in this area of operations in support to the Canadian Joint Operations Command (CJOC) for national contingency or rapid response operations. (*Ibid.*, 8; Canadian Forces Joint Operations Command, "Annex F - Maritime Operations", in *Standing Operations Order for Domestic Operations (SOODO)* (Canadian Forces Joint Operations Command File #3000-1(J5), 17 July 2014), 1.)

[31] Canadian Forces Joint Operations Command, *Standing Operations Order for Domestic Operations (SOODO)* (Canadian Forces Joint Operations Command File #3000-1(J5), 17 July 2014), 2, 3.

Canada's maritime approaches, the FG of assets to execute domestic missions and the provision of intelligence support to meet CJOC's domestic naval intelligence requirements.[32,33] Given the breadth of the task at hand, the RCN requires a robust intelligence capability to support all of its domestic FG and FE remits at the Formations, MCC and individual unit level. Fortunately, the level of complexity associated with the C^2, FG, and FE of HMC Ships for expeditionary operations is not as challenging.

EXPEDITIONARY OPERATIONS

Canada generally deploys naval forces as part of coalitions.[34] The RCN's contribution to these operations usually consists of tactical-level assets in the form of an individual ship with its associated embarked helicopter or, on occasion, a task group comprising a command element, ships, aircrafts and submarines.[35] In fulfilling its FG role, the RCN is responsible for the generation of force projection and command capabilities that are able to deliver meaningful effects across the full spectrum of contemporary naval operations ranging from the use of force to maintain order in the maritime commons to the conduct of ISR-enabled operations in the littoral environment.[36] As a result, Commander MARPAC, as the RCN FG agent for expeditionary operations, requires a high degree of knowledge regarding the type of

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[32] *Ibid.*, 19, 24.

[33] Notwithstanding CJOC's designation as the CAF operational-level headquarter, its intelligence requirements for the conduct of domestic operations consists of tactical-level intelligence, albeit on a large scale.

[34] Chief of Force Development, *The Future Security Environment 2013-2040* (Ottawa: National Defence Headquarters, 2014), 86-87, http://epe.lac-bac.gc.ca/100/201/301/weekly_checklist/2015/internet/w15-11-F-E.html/collections/collection_2015/mdn-dnd/D4-8-2-2014-eng.pdf.

[35] Royal Canadian Navy, *Horizon 2050 : A Strategic Maritime Concept for the Canadian Forces* (Ottawa: National Defence Headquarters, n.d.), 40.

[36] Mark Norman, "Into the Contested Littorals," *Vanguard*, August/September 2012: 8-10, http://issuu.com/promotive/docs/vanguard_september_digital/1?e=0.

threats and operating environments its ships will be expected to operate in, or in the case of ISR-enabled operations collect against, to ensure that they are ready in every aspect to conduct their projected mission.[37]

Although not responsible for the C^2 of international operations, the RCN is involved in the FE of HMC Ships involved in such missions, albeit in an indirect manner. In the first instance, as the national MCC, Commander MARLANT exercises national command, on CJOC's behalf, over all naval assets deployed out-of-area to take part in expeditionary coalition operations.[38] In that capacity, the MCC must maintain the requisite level of situational awareness through Current Intelligence and I&W to enable his/her ability to fulfill this role and provide advice to Commander CJOC on the ships' mission and its optimum employment. The MCC's second level of involvement in the FE of Canadian naval assets involved in expeditionary operations lies in its responsibility to provide operational and intelligence reachback support to these forces by producing "a fused theatre-wide operational and intelligence picture."[39] Furthermore, due to the fact that the RCN has been designated as the responsible CAF agent for the production of all tactical-level naval intelligence, it requires an integral naval intelligence capability to produce Current, Basic, Estimative Intelligence and I&W to fulfill this requirement.[40] Given its involvement in FE, the RCN requires an intelligence architecture capable of providing dedicated support to both its MCC Staff and its deployed assets.

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[37] The intelligence support provided to FG activities usually consists in the provision of I&W and Estimative Intelligence.

[38] Canadian Forces Warfare Centre Joint Doctrine Branch, *Joint Doctrine Note 02-2014 – Command and Control of Joint Operations*, 10.

[39] Royal Canadian Navy, *Horizon 2050 : A Strategic Maritime Concept for the Canadian Forces*, 41.

[40] Director of Naval Intelligence and Information Warfare, *Doctrine Note – Naval Intelligence Support to Deployed Forces* (Royal Canadian Navy File #3371-2000-1 (DNI/RDIMS 233682), 2 November 2011), 2.

The RCN's operational requirements with regards to FG and FE for its domestic, continental and expeditionary operations clearly highlight the need for a dedicated naval intelligence architecture to support deployed naval units as well as commanders at all levels. The breadth of the RCN's responsibilities for FG and FE entails the need for an intelligence function that is able to cover the full spectrum of naval intelligence both at the tactical and operational level, while keeping in mind the technological specificities of naval warfare, to fully understand its operating environment both at home and abroad. Let us now consider whether the RCN's intelligence architecture is able to meet these operational requirements based on their current structure and organization.

THE RCN'S INTELLIGENCE ARCHITECTURE

The RCN's intelligence architecture is articulated around three main building blocks.[41] The first building block consists of a single strategic-level organization embodied in the Directorate of Naval Intelligence (DNI) located in NSHQ. The second building block spans the operational and tactical level; it comprises the MARLANT and MARPAC intelligence capabilities, respectively designated as Trinity and MARPAC J36-2. The last building block consists of the deployable Embarked Intelligence Teams (EITs) and the Marine Security Operation Centres (MSOCs) located on each coasts as well as the Great Lakes; these organizations have an exclusive tactical focus.

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[41] For the purpose of this essay, we will only consider and discuss the intelligence organizations providing direct intelligence support to FG and FE. We will therefore not discuss the multiple capabilities and enablers that are regularly leveraged by the RCN's intelligence architecture to provide information that is included in intelligence products such as the MARLANT and MARPAC Imagery Services, Meteorology and Oceanographic (METOC) Centres, the Acoustic Data Analysis Centre (ADAC), the naval detachment of the Canadian Forces Joint Imagery Centre, and various other Joint enablers part of the Canadian Forces Intelligence Command (CFINTCOM).

DIRECTORATE OF NAVAL INTELLIGENCE

DNI, as part of the Directorate of Naval Information Warfare (DNIW), fulfils a central coordinating function for the FM, FD and FG of intelligence resources and capabilities.[42] The Director of Naval Intelligence, as principal Intelligence Advisor to the Commander of the RCN, is also involved in the oversight of FG of naval forces and naval intelligence capabilities for expeditionary operations.[43] While not being directly involved in the FG or FE of naval assets controlled by the MCC, DNI performs a coordinating function with CJOC and the Canadian Forces Intelligence Command (CFINTCOM) to assist in the integration of intelligence enablers and facilitate the provision of national-level support to expeditionary operations whenever required.[44]

EAST COAST INTELLIGENCE ARCHITECTURE[45]

The entirety of MARLANT's intelligence personnel and capabilities are regrouped under an operational unit named Trinity.[46] Given Commander MARLANT's role as National MCC for FE of naval forces involved in expeditionary operations or

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[42] Director of Naval Intelligence and Information Warfare, *Creation of Director Information Warfare (DNIW – N2/N6) in NSHQ* (RDIMS#317695, 22 January 2014), 1.

[43] Director of Naval Intelligence and Information Warfare, *Naval Intelligence Force Generation and Reach Back Support Concept of Operations Version 1.0* (Royal Canadian Navy File #3371-2000-1 (DNI) (RDIMS #244497), 3 July 2012), 6.

[44] *Ibid.*, 8.

[45] The information describing the MARLANT intelligence architecture was collected through regular correspondence during the period of 6 January and 11 April 2015 as well as during a telephone conversation between the author and Lieutenant-Commander (LCdr) Eric Paul, Head of the Intelligence Department in Trinity, on 17 April 2015. On some occasions, the information provided by LCdr Paul has been fused with information provided by other sources.

[46] Trinity stands in stark contrast to other intelligence organization within the CAF as it is the only unit to possess its own analytical and collection capabilities on a permanent basis. Trinity's overall establishment comprises approximately 200 personnel, 44 of which are directly employed in the intelligence function. Of these 44 positions, 17 are employed in the Cryptologic Support Detachment, leaving 27 individuals from the intelligence and operational community to meet hard intelligence requirements. (Jenny Dela Casa, Brian McDonah, and Brendan Dean, *Trinity Organizational Review* (Maritime Command Atlantic File #7045-1 (N73-4), 31 March 2010), 3, 7.)

major domestic operations, Trinity must be able to provide the full spectrum of intelligence support on a continual basis.[47] Trinity also supports Commander MARLANT's responsibilities as Commander JTFA for the FG and FE of naval forces involved in domestic operations as well as his/her responsibilities for FG of HMC Ships, either as part of the regular tiered readiness cycle or as directed by Commander MARPAC for expeditionary operations.[48,49]

In addition to these standing assigned duties, Trinity must also shoulder additional responsibilities, such as the provision of intelligence personnel to act as the Canadian Fleet Atlantic Intelligence Staff or to take part in major exercises and expeditionary operations, performing the intelligence staff functions for both deliberate and contingency planning associated with MARLANT's MCC requirements and providing reach-back support to deployed forces.[50] As the only established naval intelligence unit, Trinity is also expected to contribute to CFINTCOM's federated production efforts as well as NSHQ's FD and FM functions in addition to its responsibilities for the production of all Basic Naval Intelligence for the CAF.[51,52]

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[47] Trinity is responsible for the provision of intelligence support to all maritime FE activities except those conducted by Commander MARPAC under his/her responsibilities as Commander JTFP. As previously discussed, the full spectrum of support for naval intelligence consists of Basic Intelligence, I&W, Current Intelligence, and Estimative Intelligence.

[48] Director of Naval Intelligence and Information Warfare, *NAVORD 2000-1 (DRAFT) Intelligence Support to RCN Operations* (Ottawa: Naval Staff Headquarters, n.d.), 3.

[49] Despite the fact that JTFA has one intelligence representative in its staff to provide advice and produce its Monthly Regional Threat Assessment, Trinity provides Current Intelligence on threats and hazards as well as I&W in support of Commander MARLANT's domestic mission as Commander JTFA, including intelligence support to Force Protection of naval installations and reach-back support during the conduct of routine or contingency domestic operations. Trinity is also able to leverage the intelligence capabilities resident in the Marine Security Operation Centres (MSOCs) to meet its domestic operational requirements. The MSOCs' roles and capabilities will be discussed at a later point in this essay.

[50] Director of Naval Intelligence and Information Warfare, *Naval Intelligence Force Generation and Reach Back Support Concept of Operations Version 1.0*, 7.

Trinity's widespread intelligence responsibilities warrant an elaborate architecture to enable its ability to meet all requirements levied against it.

Trinity's Commanding Officer, by virtue of his/her appointment, simultaneously acts as the MARLANT N2, MCC N2 and JTFA J2 in addition to the actual command accountability for Trinity.[53] In order to do so, Trinity's intelligence function is divided into five components: the Cryptologic Support Detachment (CSD), the Maritime Intelligence Support Team (MIST), the Production Staff, the Geomatics Section and the Naval Weapons and Tactics (NW&T) Section.

As MARLANT's Signals Intelligence (SIGINT) capability, the CSD's role is to act as the main contributor in the generation of the Recognized Maritime Picture off Canada's East Coast and to provide direct support to naval vessels conducting expeditionary operations as well as Government of Canada maritime assets involved in the conduct of domestic operations. The MIST, for its part, is responsible for meeting all of the MCC's intelligence requirements for Current Intelligence while also acting as the MCC's intelligence staff for operations and planning while also providing reach-back support to deployed forces.[54,55] The MIST mainly focuses on expeditionary operations

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[51] Director of Naval Intelligence and Information Warfare, *NAVORD 2000-1 (DRAFT) Intelligence Support to RCN Operations*, 6; Director of Naval Intelligence and Information Warfare, *Concept of Employment – Intelligence "Plus Up" in the RCN Multi-Year Establishment Plan* (RDIMS #314048, n.d.), 3.

[52] Strategic-level Intelligence falls within the purview of CFINTCOM's Naval Intelligence Team resident within its Trans-National Intelligence Section.

[53] Despite the fact that Trinity is the RCN's sole formal intelligence unit, its Commanding Officer will not necessarily be an Intelligence Officer, which places an additional level of responsibility on Trinity's single Senior Intelligence Officer acting that the Intelligence Head of Department. While this "triple-hat" designation can prove to be highly challenging, it can be mitigated by the structure of the organization supporting the Commanding Officer's efforts in these three areas of responsibility.

[54] Director of Naval Intelligence and Information Warfare, *Concept of Employment – Intelligence "Plus Up" in the RCN Multi-Year Establishment Plan* (RDIMS #314048, n.d.), 2.

but is able to carefully balance its efforts and rapidly shift its focus to handle domestic requirements should the need arise.

In an effort to meet all of its remits as the CAF's and RCN's sole capability for the provision of naval Basic Intelligence and Estimative Intelligence, Trinity's Production Section is subdivided in three Intelligence Teams: The Middle-East and North Africa Team; the Russia, Arctic, and South America Team; and the Threat Assessment Team.[56] Trinity's Intelligence Teams act as subject-matter experts for their designated area of responsibility (AOR). Their effort is augmented by the Geomatics section through their ability to graphically represent large amounts of information and produce tailored fused intelligence products. The collective primary focus of the Intelligence and Geomatics teams lies primarily in operational and tactical-level topics of interest in support of both the MIST's and deployed units' expeditionary operational requirements.[57]

Finally, Trinity's intelligence establishment includes a specialist intelligence team designated as the NW&T Section comprising naval operators dedicated to the analysis of foreign weapons systems and their tactical employment. The focus of this team is to meet the RCN's operational and tactical-level technical intelligence requirements by providing

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[55] It is worthwhile to note at this point that the MIST only comprises four individuals (one Intelligence Officer and three Intelligence Operators). The MIST is augmented in its MCC N2 role by one more officer acting that the Intelligence Representative to the MARLANT Planning Team.

[56] There is currently no Asia Pacific-focused team resident within Trinity due to a lack of personnel resources. This capability is provided by the MARPAC Intelligence Staff as a stop-gap measure until such time as resources become available within Trinity's establishment to meet this need. The 27 positions currently dedicated to Trinity's production effort are augmented by an additional 10 positions at the time of writing consisting of four Reserve hires and six more temporary positions (military manning overhead (MMO)).

[57] Trinity's residual collective intelligence production capability is dedicated towards meeting operational and strategic-level intelligence requirements such as, as previously mentioned, the provision intelligence support to CJOC and NSHQ.

an understanding of the capabilities and limitations of foreign weapons systems and their likely use during operations.[58] In light of their respective expansive area of expertise, each of Trinity's intelligence teams have to carefully manage their priorities and extensively leverage national and allied intelligence capabilities in order to meet the demands levied against them by the multiple stakeholders they are mandated to support.

WEST COAST INTELLIGENCE ARCHITECTURE[59]

The role of the MARPAC intelligence architecture is two-fold.[60] First, as MARPAC N2, the West Coast intelligence staff supports the pan-RCN's expeditionary FG effort through the provision of intelligence expertise and advice during the fitting of mission-specific equipment, the individual and collective certification of intelligence personnel as well as I&W to ensure that all FG training events take into consideration the expected threats and hazards HMC Ships may encounter.[61] As JTFP J36-2, the MARPAC intelligence staff provides the same level of support to Commander MARPAC as Commander JTFP that has been described above concerning Trinity's obligations regarding JTFA's intelligence requirements. Given its particular obligations towards FG,

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[58] Trinity's efforts in this area are augmented by the work of the naval section embedded in CFINTCOM's Directorate of Scientific and Technical Intelligence.

[59] The information describing the MARPAC intelligence architecture was collected through regular correspondence during the period of 6 January and 11 April 2015 as well as during a telephone conversation between the author and Lieutenant-Commander (LCdr) David Kostuk, MARPAC Assistant-Chief of Staff for Intelligence, on 20 April 2015. On some occasions, the information provided by LCdr Kostuk has been fused with information provided by other sources.

[60] The MARPAC intelligence architecture is routinely being referred to as JTFP J36-2 and MARPAC N2 interchangeably, which often leads to confusion to the inexperienced observer. While always consisting of the same personnel, the MARPAC designation refers to FG activities related to expeditionary operations while the JTFP designation is intended to characterize intelligence activities associated to the FG and FE of domestic operations.

[61] Director of Naval Intelligence and Information Warfare, *NAVORD 2000-3 (DRAFT) Intelligence Force Generation* (Ottawa: Naval Staff Headquarters, n.d.), 2.

the MARPAC intelligence staff's structure is different than Trinity' FE-oriented architecture.

The MARPAC intelligence staff is divided in three sections in an effort to meet all of its remits entailed by its obligations towards providing intelligence support to the pan-RCN expeditionary FG effort as well as FG and FE for domestic operations.[62] Akin to its East Coast Counterpart, the West Coast's CSD provides direct support to the generation of the Recognized Maritime Picture (RMP) off Canada's West Coast while also playing a role in the direct support of units involved in domestic operations. The MARPAC CSD could also be called upon to assume the responsibility of supporting units deployed out-of-area in the event that the MARLANT CSD would be unable to meet all of its FE support responsibilities. The other components of the MARPAC intelligence architecture consist of the Force Generation Staff and JTFP Intelligence Staff, which are respectively responsible for the FG and FE activities previously discussed.[63] In addition to its remits towards Commander MARPAC as the pan-RCN FG coordinator and Commander JTFP, the West Coast intelligence staff is also regularly called upon to FG personnel to deploy as the Pacific Fleet's Intelligence Staff as well as providing personnel for major exercises and expeditionary and domestic contingency operations.

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[62] The MARPAC intelligence organization comprises 35 positions, half of which consist of the Cryptologic Support Detachment, thus a collection vice analytical or staff support capability, with a further two consisting of temporary assignments (MMO). In the absence of an established intelligence unit in MARPAC, as is the case in MARLANT with Trinity, the Senior Intelligence Officer resident in MARPAC simultaneously performs the duties of MARPAC N2 and JTFP J2.

[63] As previously discussed, in addition to their own area of responsibility, the MARPAC intelligence staff also provides support to the national MCC's FE function by producing Basic Intelligence and I&W on countries of interest in the Asia-Pacific region as well as reach-back support if required due to a lack of capability in Trinity.

EMBARKED INTELLIGENCE TEAMS

HMC Ships employed in the conduct expeditionary operations require a dedicated intelligence support capability embodied in Embarked Intelligence Teams (EITs).[64,65] The role of the EITs is to provide tailored intelligence support to deployed naval assets and produce intelligence reports based on the information collected by the ships' various sensors and collection capabilities.[66]

MARINE SECURITY OPERATION CENTRES

Although not part of the RCN intelligence architecture, MSOCs are co-located with each Fleet Operations Centres, with an additional centre located in Niagara-on-the-Lake.[67,68] MSOCs provide full spectrum situational awareness and intelligence support related to actual or potential security and safety threats within the maritime domain in or

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[64] Director of Naval Intelligence and Information Warfare, *NAVORD 2000-1 (DRAFT) Intelligence Support to RCN Operations*, 4.

[65] EITs consist of an Intelligence Officer acting as Team Lead, a Cryptologic Detachment Support Element (CDSE) and one or two Intelligence Operators to provide Full-Motion Video (FMV) or additional analytical support to the Team Lead. Imagery Technicians embarked to fulfill Public Affairs functions also perform intelligence support functions via the collection of hand-held imagery. EITs are currently FG on an *ad hoc* basis with available CAF personnel sourced across the military intelligence establishment; however, plans are in place to institutionalize this capability starting in 2016. (Director of Naval Intelligence and Information Warfare, *Concept of Employment – Intelligence "Plus Up" in the RCN Multi-Year Establishment Plan*, 1-2, 4-5.)

[66] Beyond the obvious increased situational awareness afforded by being deployed with their supported commander, EITs are in a better position to understand the nuances of the environment as well as the commander's needs by virtue of their close proximity, thus enabling their ability to be proactive to his/her operational requirements and make a concrete contribution to mission success that would not be possible via a reach back support capability. As such, the importance of embarking EITs in support of the deployed commanders' intelligence effort cannot be overstated. (Christopher R.L. Fatheree, "Intelligence Reachback Requires Analysts Forward" (Intelligence Directors Essay Awards (DNI and DIA) Competition, Naval War College, 2003), 17-18, http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA417226.)

[67] Marine Security Operations Centre (West), "MSOC 101," last accessed on 11 April 2015. (DWAN) http://esquimalt.mil.ca/marpac/n3/n36/MSOC/Documents/MSOC%20101%20Information%20Brief%20.

[68] Although not a RCN capability *per se*, the RCN remains an active participant in all MSOCs via their overall management concerning MSOC East and West, the provision of information management architectures and as the largest contributor of intelligence personnel to its intelligence analysis function.

near Canadian waters, or Canadian maritime points of entry, by enabling a cooperative approach between partner agencies involved in maritime security during the collection, management and analysis of such information.[69] Given the comprehensive nature of the MSOC endeavour and its potential for enabling an economy of effort for the RCN, this capability is more than suitable to meet the RCN's intelligence needs during the planning and execution of Domestic Operations involving a maritime nexus. This burden-sharing arrangement on the domestic front therefore affords the RCN the ability to focus its intelligence function on the collection and analysis of information in support of expeditionary operations while also providing access to mission-critical intelligence if needed to support domestic operations.[70]

FUTURE CAPABILITIES

Having recognized that "Naval Intelligence is not properly aligned and staffed to support current operational demands or emerging requirements", the RCN has put in place a plan to increase its intelligence establishment aiming mainly towards formalizing the various capabilities involved in supporting its FG and FE enabling functions.[71] In addition to bolstering the ranks of its current capabilities, the RCN will also establish a

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[69] All MSOCs include representatives from the Canadian Coast Guard, Transport Canada, Royal Canadian Mounted Police, Canada Border Services Agency, the Canadian Department of Fisheries and Oceans and the Canadian Armed Forces. (Canadian Coast Guard, "Marine Security Operations Centre," last modified on 20 September 2013, http://www.ccg-gcc.gc.ca/eng/CCG/Maritime-Security/MSOC).

[70] The MSOCs' inherent potential as the RCN's domestic intelligence enablers still entail a fusion effort on the part of its own intelligence organization given the need to include operational environmental and threat information that can only be acquired via means not available to the MSOCs in order to produce meaningful predictive assessments.

[71] The RCN will invest 18 positions (9 officers and 9 non-commissioned members) in its intelligence architecture over a three year period starting in 2015, which represents a 60% increase of its formal naval intelligence establishment from 29 to 47 personnel. (Director of Naval Intelligence and Information Warfare, *Concept of Employment – Intelligence "Plus Up" in the RCN Multi-Year Establishment Plan*, 5-6; Commander Royal Canadian Navy, *RCN Regular Force Establishment Plan* (Royal Canadian Navy File #3371-1920-1 (D Mar Pers 5, NSHQ RDIMS #271682), January 2013), 5-6, A-8 1/2 – 2/2, B-1.)

modest Processing, Exploitation and Dissemination (PED) capability to enable the full exploitation of video and imagery collected during the conduct of domestic and expeditionary operations.[72]

ANALYSIS OF THE RCN INTELLIGENCE ARCHITECTURE

Prior to embarking in the analysis of the RCN's intelligence architecture, it must be noted that there are no proven nomenclatures that have been deemed optimal towards meeting operational intelligence requirements.[73,74] The most important factor we shall therefore consider is whether the intelligence architecture currently in place across the RCN meets its operational requirements with regards to FG and FE.

At first glance, the current RCN intelligence architecture consists of a balanced aggregate of capabilities capable of meeting all of its operational requirements and

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[72] The increase of FMV collection by electro-optic sensors fitted on modernized a Halifax-Class Frigate and its embarked helicopter's multiple and, on occasion, its embarked Unmanned Aerial Vehicle (UAV) require capabilities beyond that resident in EITs in order to fully exploit all of the material collected via these means. (Director of Naval Intelligence and Information Warfare, *Concept of Employment – Intelligence "Plus Up" in the RCN Multi-Year Establishment Plan*, 2).

[73] Thomas H Hammond, "Intelligence Organizations and the Organization of Intelligence," *International Journal of Intelligence and CounterIntelligence* 23, issue 4 (August 2010): 703. http://www.tandfonline.com/doi/pdf/10.1080/08850601003780987.

[74] It is interesting to note that the RCN's intelligence architecture is aligned with organizational principles recently put forth by influential personalities of the US Intelligence Community, such as General Flynn, former DIA Director, and CIA Director John Brennan. These principles advocate an intelligence architecture structured around regionally focused intelligence teams dedicated to support specific missions, and better able to understand complex environments, such as the Trinity Intelligence Teams, paired with cross-functional teams looking at broader issues, such as the MARPAC N2 for FG and Trinity for FE. This type of structure at once provides a focal point for the provision of tailored intelligence to meet operational requirements while also clearly identifying points of accountability for the intelligence produced. (Michael T.Flynn, Matt Pottinger, and Paul D. Batchelor, *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan* (Washington, DC: Center for a New American Security, January 2010), 4, http://online.wsj.com/public/resources/documents/AfghanistanMGFlynn_Jan2010.pdf; Sean D. Nailor, "From Cyberspace to Africa, the CIA Looks to Fights of the Future," *Foreign Policy*, 6 March 2015, http://foreignpolicy.com/2015/03/06/from-cyberspace-to-africa-the-cia-looks-to-fights-of-the-future/?utm_source=Sailthru&utm_medium=email&utm_term=%2AEditors%20Picks&utm_campaign=2015_EditorsPicks_PROMO_5_TAMU_Bush_School).

achieving the right balance in covering all aspects of naval intelligence with regards to FG and FE.[75] However, the careful examination of the duties and responsibilities assigned to its various echelons reveals that some of the RCN's intelligence organizations are only capable of meeting all of their operational support remits by carefully balancing their collective capabilities in an effort to meet the highest priority requirements while assuming risk in other facets of their intelligence responsibilities. The balance is usually achieved through the re-allocation of effort between the production of intelligence and performance of the intelligence staff function for both FE and FG where the production of Current Intelligence usually prevails.[76] Although the DNI, MSOCs and EITs are effective in meeting their assigned missions for FG and FE, the Formation-level intelligence capabilities experience significant difficulties in their ability to meet all the demands levied against them.[77] The wide-ranging nature of the assigned main effort supported by the MARLANT and MARPAC intelligence organizations regarding the need to concurrently perform operational and tactical-level staff and analytical functions in support of ongoing operations, paired with their relatively limited capabilities, lead to a loss of focus and expertise in all areas where Canadian vessels could be called upon to operate in the event of unexpected contingency

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[75] As previously discussed, the full spectrum of support for naval intelligence consists of Basic Intelligence, I&W, Current Intelligence, and Estimative Intelligence.

[76] Telephone conversation between the author and Lieutenant-Commander (LCdr) Eric Paul, Head of the Intelligence Department in Trinity, on 17 April 2015; Telephone conversation between the author and Lieutenant-Commander (LCdr) David Kostuk, MARPAC Assistant-Chief of Staff for Intelligence, on 20 April 2015.

[77] This situation will likely remain extant despite the projected 60% increase of intelligence personnel as this investment will result in the formal establishment of heretofore *ad hoc* capabilities, such as the MIST and EITs vice an actual overall increase of the RCN's overall intelligence capabilities. (Director of Naval Intelligence and Information Warfare, *Concept of Employment – Intelligence "Plus Up" in the RCN Multi-Year Establishment Plan*, 3-4).

operations or change of national priorities.[78] This situation is readily evident through the MIST construct.

As previously discussed, the MIST is responsible for the provision of tailored intelligence support to the MCC and performing its intelligence staff function while also providing reach back support to deployed forces. By virtue of Commander MARLANT's function as the National MCC, this mission statement implies that the MIST must be able to perform these roles concurrently in support of multiple domestic and international operations, which is highly challenging and impedes its ability to properly perform both functions. Fortunately, the RCN is able to lower the overall risk associated with its overreliance on the MIST through its ability to leverage the MSOCs' capabilities with regard to their ability to provide intelligence support to domestic operations. Despite this mitigating circumstance, the allocation of broad-ranging intelligence support responsibilities to this small team leads to its inability to dedicate the required level of focus to the overall FE effort.[79]

Another challenge faced by the MARLANT and MARPAC intelligence organizations that leads to their collective challenge in meeting all demands levied against them is the lack of an established capability to support the FG of ships not scheduled to deploy on expeditionary operations. While the MARPAC N2 is capable of acting as the pan-RCN coordinator for the FG of intelligence capability and personnel for

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[78] This situation is especially acute with regards to intelligence support to FE due to the need to acquire and maintain situational awareness and regional expertise in these areas.

[79] Anecdotal evidence suggests that the MIST's inability to fulfill all of its FE obligations materializes in the provision of Current Intelligence support to the MCC to enable his/her situational awareness of major expeditionary operations at the expense of its other main obligation: the provision of second line support to EITs embarked in ships conducting expeditionary operations.

expeditionary operations and MARPAC's pan-RCN FG effort, both MARLANT and MARPAC must redirect resources from their respective primary FE and FG efforts towards supporting non-expeditionary FG requirements. The RCN's intelligence FG challenge is further compounded by the fact that its current architecture has not been designed to account for the need to train and deploy personnel in support of domestic and expeditionary operations.[80] The reallocation of effort and personnel from MARPAC's and MARLANT's primary intelligence mandate further contributes to their inability to maintain a concerted focus on their respective responsibilities in supporting their FG and FE remits.

A further example of the lack of focus hampering the RCN's intelligence effort resides in the broad AORs allocated to its Regional Intelligence, Threat Assessment and NW&T Teams. Given the complexity and diversity of the threats and hazards that can be encountered by HMC Ships operating in the contemporary maritime environment, the current AORs allocated to each of the RCN's Intelligence Teams make the sustained production of Basic and Estimative Intelligence as well as I&W highly challenging due to the need to maintain a high degree of knowledge and familiarity with any given matter of interest or significance within it. While it could be argued that this challenge could be addressed by a more restrictive redefinition of these AORs, this approach would ultimately prove counter-productive as HMC Ships have historically been regularly

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[80] As previously mentioned, the intent of the RCN's current Multi-Year Establishment Plan (MYEP) is to address this shortcoming through the addition of 18 positions to its intelligence architecture. While this augmentation in personnel will lessen the burden placed on the Formation's intelligence staffs by institutionalizing the EIT concept to meet expeditionary requirements, the challenges encountered for the FG of personnel for other tasks, such as the provision of deployable Fleet Intelligence Staffs, Intelligence Liaison Officers or support to major domestic exercises, will not be lessened by this investment of resources.

called upon to operate in the areas currently allocated to Regional Intelligence Teams.[81] While not optimum, the allocation of broad AORs ensures that a basic level of understanding is maintained regarding matters of operational relevance. Another option would be to rely on allied capabilities to achieve an economy of effort in maintaining the requisite level of knowledge of some areas of interest. Adopting such an approach entails the acceptance of significant risk by the RCN as it could result in its inability to benefit from mission-critical intelligence support if a national contingency involving matters deemed to be of high interest to the Canadian Government but not as important to allied intelligence organizations was to arise. As such, both MARLANT and MARPAC Intelligence Teams must carefully weigh their efforts to meet the RCN's operational intelligence requirements, thus negating their ability to maintain a sustained focus on any given matter of interest.

The RCN's intelligence architecture is capable of meeting all of its operational requirements, albeit with some degree of difficulty, despite the ambitious demands levied against it.[82] Its ability to do so is contingent on an assumption of risk at all levels that intelligence requirements will be addressed on a priority basis by an over-extended intelligence capability that is expected to simultaneously maintain a widespread focus on multiple topics of interest.

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[81] The adoption of this course of action would essentially lead to the *status quo* where the RCN's intelligence effort would have to be rapidly adjusted if an issue arose outside or its intelligence team's AOR to become familiar with an area that it does not regularly study or monitor.

[82] It must be noted, however, that the RCN's intelligence construct, in its present configuration, would not be capable of accommodating additional intelligence requirements entailed by new capabilities, such as its newly established expeditionary naval boarding capability. (Commander Royal Canadian Navy, *RCN Regular Force Establishment Plan*, 5.) Should it be required to further expand its mandate in support of FG and FE requirements, the RCN's intelligence function would only be able to do so at the expense of one of the facets of its current intelligence responsibilities, which are all already under strain.

CONCLUSION

The RCN has maintained its ability to prevail in the post-Cold War environment despite the increased level of complexity associated with the contemporary maritime setting. The RCN's ability to remain flexible in meeting all of its operational requirements for FG and FE head-on has been in large part enabled by the concerted effort of all levels of its intelligence architecture through the provision of the full-spectrum of naval intelligence support.

Despite the fact that, at face value, the RCN's intelligence function is able to meet all operational intelligence requirements levied against it, the RCN's continued success has been achieved through the multi-tasking of its various intelligence capabilities to meet its most pressing needs. By doing so, the RCN assumes a high degree of risk. The careful calibrating of risk and operational requirements has resulted in the RCN's intelligence enablers' collective adoption of a scattered focus, principally at the Formation level, that simultaneously allows a sufficient ability to meet all operational and tactical-level needs at an adequate degree of quality while also hampering its collective capacity to fully meet all of its obligations. Given the inherent risk to mission success entailed by the need to sacrifice some aspects of the RCN's intelligence effort to meet its operational imperatives, further research should be conducted in order to determine the optimal levels and preferred occupation of personnel resources required in each of its Formation-level capabilities, with a view to re-allocate personnel if required, to better meet the RCN's current and projected intelligence requirements.

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