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DIRECTOR GENERAL NAVAL STRATEGIC READINESS: FUTURE FLEET ALTERNATIVE SERVICE DELIVERY

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Service Paper

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By Lieutenant-Commander Crystal Chenell

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AIM

1. This service paper aims to identify possible areas where crew optimization may be achieved by devolving support responsibilities to shore establishments. The intent will be to make recommendations on the possibility of alternate service delivery. Identified areas within this paper will warrant further analysis to ensure Royal Canadian Navy (RCN) senior leadership fully understands the benefits, risks and capability gaps associated with devolving support responsibilities.

INTRODUCTION

2. Leadmark 2050 is a “self-assessment” of the RCN’s role in the future security environment.¹ Within this report, it lays out how the RCN must evolve to meet future challenges. One key consideration in this regard is crew optimization as a means to reduce life-cycle costs of the future Fleet.² The transitioning of some historically ship based logistics functions to a shore based organization is a crewing concept that may allow for better crew optimization in the future fleet. Further analysis of this topic will be necessary; however, the purpose of this paper is to identify opportunities where optimization may be possible within the Logistics Department and to identify the likely challenges in achieving optimization. There have been several studies already conducted on alternative service delivery.³ Thus, this paper intends not to regurgitate the same information but rather to augment areas requiring further analysis or introducing ideas that have changed since the original analysis.

3. This paper will use the term *alternative service delivery* to ensure continuity in the terminology used between organizations when discussing devolving support functions to shore establishments.⁴ Alternative service delivery is not a new concept to the RCN. Both NRU *Asterix*, KINGSTON, ORCA and HARRY DEWOLF classes of ships use alternative service delivery to varying degrees. To meet this paper’s aim, a discussion on seven key areas is worthwhile to identify optimization possibilities. This paper will address each of the Logistics departments’ five Divisions individually. The next area will identify efficiencies through digitization, and the last will discuss mission support teams and their role in crew optimization.

¹ Department of National Defence, *Canada in a New Maritime World: Leadmark 2050* (Ottawa: Commander, Royal Canadian Navy, 2016), F-ii.

² *Ibid.*, 49.

³ I.A. Bye, "Director General Naval Strategic Readiness: Options to Reduce Integral Logistics Support Onboard Royal Canadian Navy Major Warships" (Joint Command and Staff Program Service Paper, Canadian Forces College, 2018), 1.

⁴ Steve Parker, *JSS Crewing Update* (Ottawa: Director Naval Personnel & Training 5-3, 2020), 58.

DISCUSSION

4. During the design phase of a new class ship, it is essential to understand that “crew size and composition will have a significant impact on both total ownership and operational capabilities.”⁵ To ensure the size and composition of a new class ship is correct, the RCN must revisit previous determinations periodically throughout the concept, design and build phases. As per annex A, Director Naval Personnel and Training (D Nav P&T) provided such an update on Joint Support Ship (JSS) crewing to Director General Future Ship Capability (DGFSC). At this time, D Nav P&T recommended an investigation of alternative service delivery options to identify where crew optimization may take place within the Logistics Department.⁶ While the JSS is not the only future fleet ship, it is a sound basis for analyzing alternate support and sustainment to all classes of ships within the RCN. The concepts can apply to the Canadian Surface Combatants (CSC) and Arctic Offshore Patrol Ships (AOPS). The remainder of this discussion will break down by Division areas where crew optimization opportunities exist.

5. The Logistics department’s five Divisions are Supply, Steward, Food Services, Human Resources, and Financial Services. Once an examination of the five Divisions takes place, digitization and mission support teams will comprise the remainder of the discussion:

a. Supply.

(1) JSS Logistics Crewing. The recent crewing update to DGFSC has initiated conversations on requirements for Material Management Technicians (previously Supply Technician); however, it is challenging to determine personnel requirements without a concept of employment. Recommendations on Material Management Technicians cannot be confirmed until the concept of employment is released. As per annex B, a review will be necessary once support requirements are better known. The United States Navy devolved all support, sustainment and maintenance to shore establishments for their Littoral Combat Ships (LCS).⁷ Devolution of this magnitude, where material management support is transferred to shore establishments, is not anticipated at this time for Royal Canadian Navy ships. Therefore, for this paper’s purposes, the assumption will be that material management will remain onboard.

(2) Procurement. Procurement and contracting responsibilities fall within the Supply Division. Onboard procurement, however, is becoming more complex due to the anticipated increase in delegation of authorities. Procurement levels onboard HMC Ships will increase from \$5K to \$25K per transaction, which will create a significant increase in workload for ships. Not only will the number of purchases

⁵ R. Chow, R. Burke and Dennis Witzke, "A Systems Approach to Naval Crewing Analysis: Coping with Complexity," *Canadian Naval Review* 11, no. 3 (Fall 2016): 16.

⁶ Steve Parker, *JSS Crewing Update* (Ottawa: Director Naval Personnel & Training 5-3, 2020), 51.

⁷ A. Donald, Birchler and Adam M. Clemens, *LCS Sustainment Support Ashore* (Alexandria: CNA Analysis & Solutions, 2013), 3.

increase, but the process by which procurement is managed through the Defence Resource Management Information System (DRMIS) is more complex than the under \$5K level currently being done onboard. Therefore, procurement is posing more risk than ever before, with more demand on human resources to satisfy this requirement.

(3) NATO Support and Procurement Agency (NSPA). To alleviate some of the ship's procurement burden, alternate options are available to reduce procurement demands while in foreign port. One such mechanism is NSPA. Key aspects of NSPA are the acquisition, logistics and operational support to NATO nations.⁸ Canada subscribes to several NSPA services; however, it does not subscribe to the Naval Logistics Support (NLSP).⁹ NLSP provides a wide range of services to its member Navies, including fuel, husbandry services, naval technical support and port services in addition to procurement. Due to Treasury Board regulations, Canada has not been able to take advantage of this service. Considering the efficiencies and vital services NLSP can provide to the Royal Canadian Navy, thus reducing demand on shipboard personnel, higher-level discussions are worthwhile in the hopes of overcoming the contracting roadblocks currently being experienced.

b. Steward. At the time of this paper, the full extent of the recent Occupation Analysis (OA) results is unknown, and therefore specific recommendations in the OA will not be discussed. Despite the Steward trade's future, certain Non-Public Funds (NPF) operations will remain onboard as they provide morale services to the crew.¹⁰ Modernization of antiquated Steward Division processes is vital and will result in considerable efficiencies. Two such areas are as follows:

(1) Cashless Operations. In order to find efficiencies within the Steward Division, in either personnel or processes, the NPF organization must become cashless. Cash monopolizes human resources onboard HMC Ships, and if it were to be digitized, it could create significant efficiencies in NPF operations. Navy Cash has been tried and tested by the United States Navy. The Navy Cash concept functions as a fully automated pre-loaded debit card with the option to make pre-authorized payments from a member's pay account and is available for ship visitors and reservists.¹¹ Using such a system will allow for a cashless operation, remove human error and provide flexibility to the crew. Visitors who do not have Canadian currency have always posed issues to the ship regarding onboard

⁸ North American Treaty Organization, "NATO Support and Procurement Agency," last accessed 4 February 2021, <https://www.nspa.nato.int/>.

⁹ As of 18 May 2020, 17 NATO nations utilize Naval Logistics Support.

¹⁰ The Canteen and Messes are vital morale services for the crew, and the basis of NPF operations.

¹¹ U.S. Department of the Treasury, "Navy Cash," last modified 10 February 2020, <https://fiscal.treasury.gov/navy-cash/>.

purchases. A system similar to Navy Cash can eliminate this many other issues from cash-based operations.¹²

(2) Bookkeeping. The system currently in place on HMC Ships requires a significant amount of manual input. From a digitization perspective, Simply Accounting is neither intuitive nor integrated. Removal of bookkeeping from HMC Ships is possible; however, without a change in the current process and system used, the issues will only be passed from ship to shore establishments. These issues have carried over to the existing alternative support delivery for Maritime Coastal Defence Vessels (MCDVs) and AOPS, making onboard NPF services more complicated. This virtual extension is only exacerbating the issues and causing more demand on personnel to deal with issues as they arise.¹³ Further analysis is required to determine the best course of action to mitigate the issues currently being faced; however, using a more updated and integrated system will alleviate most of these issues.

c. Food Services. The Cook trade health has been an ongoing discussion with Senior Naval Leadership for the past couple of years. The allocation of Cooks is based on the Food Services Manual directive determined by crew size, and therefore a reduction cannot be made unless the actual crew size reaches a specific threshold. Therefore, this paper does not intend to optimize the Cook Division but rather recommend efficiencies to reduce pressure on existing personnel. Single cafeteria-style feeding is one such way to alleviate the demand on Food Services, both in the Cook Division and the Steward Division. AOPS is already feeding its crew from one cafeteria, and the Messes will be for socializing only. This feeding concept will allow the Stewards to assist the Cooks in food preparation and serving. It is recommended that all future classes of ships adopt the same concept moving forward.

d. Human Resources. Considerations of removing Human Resource functions or their Administrators from ship to shore support establishments appears to be the easy button from a glance. While not critical from a warfighting perspective, this Division's functions will have a considerable impact on the ship and shore units. Senior leadership must be aware of these impacts before optimizing crew with this section. The AORs, Destroyers and Frigates all enjoyed the benefits a self-accounting unit provides, meaning that the support to sustain a ship is integral. One of the primary functions of a Ship's Office is pay. Removing pay will result in the Pay Office Number (PON) being removed from the ship. Canteen purchases, mess chits and all onboard fundraising use Acquittance Rolls as a means to reduce cash. If the plan is to remove pay, and as a result, Acquittance Rolls with the Ship's Office, the cashless system currently being used on the ship will no longer exist. One way to mitigate this is to move to a cashless system within the NPF

¹² Integration of Reserve pay and utilization of acquittance rolls within NPF has been problematic; Navy Cash can alleviate this issue. The Reserve and Regular force systems do not integrate well in this regard.

¹³ A. Donald, Birchler and Adam M. Clemens, *LCS Sustainment Support Ashore* (Alexandria: CNA Analysis & Solutions, 2013), 1.

Division. Acquittance Rolls are equivalent to cash, and the added risk of transferring them from ship to shore to be processed is high. Another consideration is how each ship's URS functions will amalgamate ashore and how they will feed into the Base Orderly Room? The Director of Military Pay and Accounts Processing (DMPAP) is the authority to establish or make changes to a URS and ensure compliance. A recommendation that these discussions take place immediately to understand what limitations exist in shifting pay functions ashore.¹⁴ Removing HRAs from the ship will likely affect the Base URS, and thus a mutual agreement that DMPAP blesses will be essential. Considering that HRAs are purple, removing the trade from ship to shore will affect their competitiveness for promotion against the other two elements.¹⁵

e. Financial Services. Similar to Human Resources, the Financial Services Division will likely be a consideration for crew optimization. The Pay Office's three primary functions are managing the Working Capital Fund (Cashier / Sub-Cashier), budgeting and claims. These functions are possible to move ashore; however, these processes have external influence and compliance requirements. An appreciation of what this entails will determine the composition of a shore establishment. By removing the Cashier from the ship, the ability to cycle cash through the ship from the NPF organization to the Pay Office will no longer be possible. The current practice on a Frigate works due to integrating all three sections (Pay, NPF and Cashier). By removing two critical processes, Pay and Cashier, the NPF organization will not function in the same capacity. In addition to this, the Base Comptroller is the only base Cashier/Claims organization. If Cashier/Claims functions are removed from the ship, over two thousand sailors from AOPS, JSS and CSC combined will significantly overload Base Comptroller.¹⁶

f. Digitization. To guarantee Logistics is well-positioned to support the RCN in the digital age, it also needs to find innovative ways to ensure future mission success.¹⁷ Most of the systems used within the Logistics Department belong to other organizations, and those same organizations also dictate the processes and usage of the systems. Two possible systems to digitize within RCN Logistics lines are Navy Cash and an integrated NPF bookkeeping system. There has always been a risk in using a cash-based system, and in today's digital age, it is unnecessary to continue assuming such risk.¹⁸

¹⁴ The ship to shore ratio of HRA positions was previously determined when ships were self-accounting. With the possibility of removing 2,000 personnel pay accounts ashore, this will be a major endeavour to construct an organization that will be supportable. Infrastructure will be the critical determinant on where such an organization can exist on base. The new CSC facility will be a prime location to house an organization that supports an Integrated Fleet Support section.

¹⁵ HRAs will have limited operational experience in their element comparatively. Deployment opportunities that have made HRAs competitive for decades will be reduced significantly or removed altogether.

¹⁶ Base support organizations are experiencing significant shortages (HRA – 86% and FSA – 85%) due to decreased Preferred Manning Levels (Annex C).

¹⁷ Department of National Defence, *Digital Navy: A Strategy to Enable Canada's Naval Team for the Digital Age* (Ottawa: Commander, Royal Canadian Navy, 2020), 3.

¹⁸ A recommendation to have a cashless ship is for operations only, an appropriate amount of cash for emergencies should be held onboard.

g. Mission Support Teams. Future force planning uses Force Mix Structure and Design (FMSD) to determine the structure required to support scenarios from the future security environment.¹⁹ FMSD identified Forward Logistics Site as a permanent Force Element within the RCN. FLS teams have been forming Alternative Service Delivery for MCDVs, submarines and Frigates for over twenty years; however, there are no dedicated personnel to fulfill this role. Strides towards establishing an FLS organization are underway, but there are no assurances that this will come to fruition. If mission support teams are to be a part of the future support concept for HMC Ships, establishing a dedicated organization will be necessary.

CONCLUSION

6. Reduction of life-cycle costs is a new reality for the RCN as the future Fleet comes online. A ship-wide assessment is necessary to identify where crew optimization possibilities exist, and this paper discusses areas where further analysis is necessary within the Logistics department. Due to the limitations in size and scope, this paper only identified a brief overview of alternative service delivery possibilities. Each section deserves further analysis to ensure a genuine appreciation of the risks, issues and benefits before making any decisions to remove personnel to shore-based establishments.

RECOMMENDATION

7. Each Division within the Logistics Department is interrelated. Removing all or partial functions from one Division will significantly impact the whole department. Changes of this magnitude will also affect already existing shore establishments external to the Fleet. Defining the problem space is necessary if alternative service delivery is to be successful. Changes in cultural practices and support from Senior RCN leadership will be vital in ensuring that the future Fleet can operate at more prolonged periods.

Annexes (not included):

- A. JSS Crewing Update to DGFSC by D Nav P&T 5-3 (RDIMS#468682).
- B. Director Naval Logistics JSS Logistics Crewing (RDIMS#468058).
- C. HRA & FSA Preferred Manning Levels – Monitor Mass (Note 16)

¹⁹ Department of National Defence, "Future Force Design," last accessed 4 February 2021, <https://www.canada.ca/en/department-national-defence/corporate/reports-publications/departmental-plans/departmental-plan-2020-21-index/planned-results/future-force-design.html>.

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