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DIRECTOR GENERAL NAVAL STRATEGIC READINESS – OPTIONS TO REDUCE INTEGRAL LOGISTICS SUPPORT ONBOARD ROYAL CANADIAN NAVY MAJOR WARSHIPS

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AIM

1. The aim of this service paper is to identify possible areas where a major warship's integral logistics capability may be devolved to shore establishments and the potential risks associated with such a move. The intent is not to make any specific recommendations, however identified areas may warrant further study based on the willingness of Royal Canadian Navy (RCN) senior leaders to accept potential risk to naval readiness and the sustainability of operations.

INTRODUCTION

2. As discussed in the preface to the RCN's Naval Logistics Publication *Logistics Deployed Support*, "The complexity of naval operations places unique demands upon support structures."[1] As an integral component in generating and sustaining combat-capable naval forces, logistical support must be efficient and responsive. Major warships in the RCN currently have a robust and capable organic logistics structure which provides support in supply, food services, finance, administration and non-public property (NPP); as well as providing additional support in other areas such as all-ship evolutions and duty watches.

[1] Department of National Defence, Naval Logistics Publication 4.00, *Logistics Deployed Support* (Ottawa: DND Canada, 2015), i.

3. One of the key cost drivers for the RCN's next generation major warship, the Canadian Surface Combatant (CSC), is personnel. As such, there is significant pressure to reduce the size of CSC's crew.[2] One possible way to contribute to this goal is to reduce onboard logistical support and increase reliance on shore establishments. In this context, shore establishments could include military, civilian, or commercial organizations. In order to meet the aim of this paper, an overview of the current level of shipboard support will be given along with a look on how that support may be delivered from ashore. Finally, some potential risks will be identified together with some possible mitigation strategies.

DISCUSSION

4. The Logistics Department onboard a RCN major warship is led by qualified Naval Logistics Officer (LogO) who is responsible to the Commanding Officer (CO) for the provision of all logistics support. In addition to managing and supervising the department's day to day operations, the LogO also fills a number of other non-logistics related positions such as: Contamination Control Officer, Section Base Team Four leader, and Officer of the Day (OOD). The Department leadership also includes a senior Non-commissioned Member (NCM), normally a Chief Petty Officer Second Class (CPO2), who serves as the Departmental Coordinator. Finally, the LogO is normally joined by a junior officer under training who serves as the Assistant Logistics Officer. Together, these three positions form the Logistics Department leadership cadre.

[2] Ian D.H. Wood, "Crewing Strategies for the Royal Canadian Navy's Future Ships," *Canadian Naval Review* 10, no. 4 (2014): 4.

5. The Supply Section provides all materiel support to the ship. In order to accomplish this, the ship has multiple warehouses for spare parts. The Supply Section enters all supply transactions, such as demands, issues and returns, in the Defence Resource Management Information System (DRMIS). It performs stocktakings and conducts investigations and write-offs when there are discrepancies. Additionally, the section is responsible for victualling, or rations accounting, and local contracting and procurement. The section is led by a Petty Officer First Class (PO1) and consists of five to six supply technicians of various ranks.

6. The Cook Section is responsible for providing healthy food to the ship's company. The section must provide up to 800 meals a day regardless of sea state or the ship's schedule and is an important component in the maintenance of crew morale. The Chief Cook, normally a PO1, manages the ship's menus, orders rations through the Supply Section, and ensures the rations accounting program is updated. The remaining five to six cooks provide the meals at sea and alongside while deployed, and to the duty watch while alongside in home port.

7. The ship's administrative and financial support staffs are found in the Ship's Office (SHO) and the Pay Office. The SHO is responsible for providing for the administrative needs of both the ship and the crew. As a Records Support Unit (URS), the SHO stores and maintains the crew's personnel files as well as updates the Human Resource Management System (HRMS). The SHO also provides central registry and correspondence control services. The Pay Office provides pay support to the crew through pay parades and the Central Computation Pay System (CCPS), as well as financial and budgeting support to the ship through DRMIS and the Working

Capital Fund (WCF). The SHO and Pay Office are led by the Chief Clerk and consist of two to three administrative clerks and two pay clerks.

8. The final section of the Logistics Department is the Stewards Section. The stewards' main duties are providing food services support to the CO and the Wardroom and management of the ship's NPP organization. The management of the NPP organization is an important part of the ship's overall morale and welfare and includes the supervision of mess bars and the canteen, as well as behind the scenes components such as NPP bookkeeping and NPP warehouse management which must be kept separate from the public side. In addition to their other duties, the ship's stewards also serve as onboard First Aid instructors. The Senior Steward leads the Steward Section which is made up of five to six stewards of various ranks.

9. In addition to their regular duties, Logistics Department staff fill many other positions in the Watch and Station Bill. Many of these positions are generic in nature and could be filled by any qualified sailor. These include positions such as part-ship hands and communicators, or any of the duty watch positions such as Duty Coxswain or Quartermaster. Other positions require specialized training. These include not only specialized trade positions such as Duty Cook or Duty Supply Technician, but also important components of the Ship's emergency response organization such as casualty clearers.

10. One model to reduce the afloat logistics footprint onboard RCN major warships is to use a variation of the logistics model currently used to support the Maritime Coastal Defence Vessel (MCDV) fleet. MCDVs have an extremely small crew complement and the majority of their logistics support is provided from ashore. In order to provide the required support, each coast's Maritime Operations Group (MOG) contains supply, administration, food services, and NPP assets which provide all support to the ships while they are alongside in home port. When an MCDV is deployed away from home port, the MOG generates a Forward Logistics Site (FLS), which works in conjunction with a civilian ship's chandler in order to provide the required level of support. The onboard support component is not completely eliminated as certain elements such as cooks, supply technicians and clerks are still required to provide some services while at sea, but the small crew size and increased support from ashore greatly reduces the required effort.

11. According to contemporary RCN doctrine, a FLS is an augmentation, not a replacement, for a ship's onboard support.[3] As such, the current FLS construct is small and geared towards liaison and coordination as opposed to completely replacing onboard capabilities. Since MCDVs carry fewer capabilities than a major warship and their deployments are generally shorter, a small FLS is able to provide all required support in conjunction with a civilian chandler. FLS duties are usually restricted to ship's chandler coordination, local contracting for goods and services, customs and immigration clearances, shipping and receiving, and Personnel, Mail, Cargo (PMC) tracking. A larger and more capable FLS could provide increased support to a

[3] Department of National Defence, 8.

major warship, however some aspects would be better provided through reachback to homeport or by maintaining the capability onboard.

12. Many of the Supply Section's functions could be conducted from ashore, including conducting DRMIS transactions and local contracting and procurement. The management of the ship's warehouses would be more complicated, however. While stocktakings and investigations could be scheduled and completed by shore-based teams as required, the day to day issue and return of spares would require an onboard presence under the present system. One possible solution is to eliminate the onboard warehouses as they currently exist and move to a spares "pack-up" system similar to what is currently used to manage shipborne helicopter spares. Under this system a package containing critical spares for a piece of equipment is issued directly to the maintainers responsible for that equipment. The maintainers are then responsible for managing the spares and the pack-up is replenished on an as needed basis. The advantage to this system is that the pack-ups can all be managed within the supply system from ashore. The risks are that an increased workload is placed upon the technicians and since the pack-up will contain less spares than an established warehouse, the likelihood of the right part not being available is increased.

13. Of all the logistics functions, food services are probably the hardest to move to a shore-based support construct. Sailors will always have to eat, and the effect food services can have on health and morale make it a difficult area to make reductions. As crew reduction strategies and automated food preparation technologies are implemented, the required number of cooks will

naturally decrease, but there is a bottom limit that will eventually be reached.[4] An extreme solution is the total elimination of cooks and implementation of pre-packaged meals that can be bulk prepared using automated food preparation technologies. The advantage of this course of action, beyond eliminating the need for cooks, is simplified ration forecasting and more efficient storage. The risks are the effects that reduced variety would have on the crew's morale and the requirement for specialized pre-packaged meals that would probably not be available in foreign ports; necessitating the constant need for resupply from Canada.

14. The onboard requirement for pay and administrative clerks could be reduced through the introduction of self-service pay and administrative systems. Civilian Department of National Defence (DND) employees already have a self-service system with Phoenix. While there are currently teething problems with the Phoenix system, it does serve as a proof of concept that such a system is possible. Similarly, while clerks are currently required to provide updates to the HRMS system, there is no practical reason why it couldn't be moved to a self-service system as well. The loss of pay and administrative clerks would have other risks as well. Without pay clerks, the ship would not be able to have its own WCF. While a WCF can be replaced with a standing advance to provide for the ship's cash needs, replenishment while away from home port would be more complicated. Without a pay clerk, the standing advance holder responsibilities would need to be assigned to another member of the crew. Strict cash security requirements would most likely preclude the standing advance from being held by the FLS given its transitory nature. Another risk is that the ship would not be able to hold the crew's personnel files without

[4] Wood, 6.

administrative clerks. This is a relatively minor risk though, as it would simply remove the ability to update or reference the files immediately while deployed.

15. The consolidation of the support provided by the Steward Section is probably the easiest to effect in the near term. In order to make a significant cut in the number of stewards required onboard, all that needs to be done is make the simple change of requiring officers to serve their own meals. This would require a cultural shift within the RCN but would not be difficult to implement practically. The MCDV model would also be effective in reducing the onboard NPP support requirement. Under this model, the ship NPP entities (Ship's Fund, Wardroom, Chiefs and Petty Officer's Mess, Ship's Exchange, ect.) are sub-entities under the MOG NPP organization. The NPP warehouse and accounting functions are conducted from ashore and the onboard positions become secondary duties for existing personnel. The disadvantage of this system is that the independence of the ship's NPP entities are greatly reduced; ship's would lose the ability to set their own prices in the canteen, for example and replenishment of NPP stock becomes much more complicated while deployed.

16. In addition to the specific risks identified for each section, there are a number of generic risks that could affect ships' readiness and sustainability. With the elimination of onboard logistics support, a number of functions would become secondary duties for personnel remaining onboard. These could include, but are not limited to, standing advance holder, spares pack-up custodian or canteen manager. As secondary duties, personnel may not receive adequate training or may not have sufficient time to dedicate to the task. Communications bandwidth restrictions,

already an issue onboard warships, would become even more important as communications with the FLS or homeport organizations become vital to logistical readiness. Fewer available personnel will also adversely affect duty watch rotations and make positions in the watch and station bill harder to fill. Finally, while not affecting ships' readiness, the movement of logistics personnel to shore organizations would likely not reduce overall RCN costs. The personnel costs directly attributable to the CSC's crew would be reduced, however that cost would simply be transferred to shore organizations. Since FLSs are already very expensive due to the costs associated with supporting a team on a foreign economy, the necessary increase in FLS size will likely negate savings associated with reducing the ship personnel costs.

CONCLUSION

17. Major warships in the RCN currently have very robust integral logistics organizations. These organizations not only provide for every aspect of the ship's logistical support, but also deliver personnel to support all-ship evolutions whenever required. Through a combination of shore support, new technologies and changes to existing policy, the CSC's onboard logistics component could be significantly reduced or even, with the necessary cultural adjustments, eliminated. Such a course of action would not be without risks and while some risks could be managed, others would have to be accepted. Finally, while the overall goal of reducing the CSC's crew is to reduce costs, it is unlikely that the RCN would see any overall savings, as personnel costs would simply be transferred to other organizations.

RECOMMENDATION

18. Based on the preliminary analysis into the feasibility of reducing onboard support elements for CSC, it is recommended that future efforts are integrated with a team to explore overall crew size reductions. The Logistics Department does not operate in a vacuum onboard ship and changes and reductions could have unforeseen consequences in other departments.

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