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CFS ALERT FUTURE CAPABILITY RECOMMENDATIONS

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Service Paper

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CFS ALERT FUTURE CAPABILITY RECOMMENDATIONS

AIM

1. The aim of this service paper is to identify a need to change both the future mandate and Command and Control (C2) structure of Canadian Forces Station (CFS) Alert and to provide recommended options to that effect.

INTRODUCTION

2. In accordance with the Canadian Forces Organizational Orders (CFOOs), the role of CFS Alert is to operate and maintain signals intelligence and geolocation facilities¹. The station is located on Ellesmere Island in Nunavut Territory, 817 kilometers (km) from the North Pole and holds the noteworthy title of the most northerly, permanent inhabited location in the world. Given its extreme northern location it also provides a secondary role as providing presence for Canada's arctic sovereignty. As of 1 April 2009, the command of CFS Alert was transferred to the RCAF under the Commander (Comd) of 8 Wing Trenton. In view of CFS Alert's role, strategic importance for sovereignty and potential changes to the operating environment in the arctic, should the station be commanded by 8 Wing, more specifically, as we go forward into a future where the arctic is of increasing importance?

3. This Service Paper will seek to provide forward looking options to the previous question. First, it will discuss the history of CFS Alert in order to give context to the evolution of the station as well as past and present C2 structure. Second, it will identify the problem with the current C2 structure, third it will propose a future evolution of the station and finally it will provide recommendation as to future changes to its C2 structure based on the proposed new mandate.

DISCUSSION

History

4. CFS Alert was established in 1950 as a weather station for the Joint Arctic Weather Station (JAWS) system. Shortly thereafter, in 1958 its role as a signals intelligence unit began under the Canadian Army and the station became known as the Alert Wireless Weather Station. In 1966, with the unification of the services, its name changed to CFS Alert. In 1982, the construction of the High Arctic Data Communications System (HADCS) was completed with an upgrade conducted in 1998. In 1997, the equipment was switched to remote operation which drastically reduced the station's manning from 200 to 69 personnel. CFS Alert reported through the Canadian Forces Information Operations Group (CFIOG) until it transferred over to the RCAF/8 Wing Trenton on 1 April 2009. The 2008 Transfer Implementation Plan (TIP), made note that "though the mission of Alert has not changed, in practical terms, the Air Force became the de-facto responsible authority for virtually all significant support activity in Alert, and a

¹ Department of National Defence. *Canadian Forces Organizational Orders 0205 – Canadian Forces Station Alert (CFS Alert)*: file 1901-0208 (DDFP 7), 26 January 2011.

formal shift of command authority was logically inevitable”². Either through natural evolution or by scope creep, operational command was given to the supporting command. 8 Wing has no control over the mission but, nonetheless, continues to provide command and extensive support to the station. This shift of command also included Fort Eureka, located approximately 400 km to the south, and all HADCS sites, minus the equipment, on Ellesmere Island. Furthermore, the transfer did not include signals intelligence (SIGINT) personnel and equipment that directly support the SIGINT mission. The station also has up to four Environment Canada employees with their own separate mandate. Annually, during the summer, the station’s population may increase up to 150 personnel for the completion of new construction, research projects and preventive maintenance.

5. CFS Alert has a baseline personnel strength of approximately 35 military and 35 civilian contracted personnel³ who are mainly responsible for the running and maintenance of the station. As of 2020, the Alert Management Office (AMO) under 8 Mission Support Squadron (MSS) located at 8 Wing Trenton provides broad support to CFS Alert. The AMO office is manned with 5x Primary Reserve Personnel who manage the Support Services contract and all ongoing projects. As result of function, the Commanding Officer (CO) of CFS Alert reports functionally to another CO, the CO 8 MSS. Further confusing the C2, the 8 Wing website lists CFS Alert as a sub-unit under 8 MSS⁴ vice a unit under 8 Wing.

6. Despite CFS Alert being located at the far extremity of Canada’s North and incredibly isolated compared to most, if not all, international deployments, CFS Alert is not deemed a domestic operation. The personnel working at the station are not considered on deployment. However, the bi-annual replenishment, Operation BOXTOP, is an operation under CJOC but all aspects of planning and execution have been delegated to the Joint Force Air Component Commander (JFACC); ultimately coordinated largely by the AMO. The Op BOXTOP procurement list is managed by the AMO, the procurement is conducted by 8 Wing Replenishment (Supply) for forward delivery to 25 Canadian Forces Supply Depot (CFSD) in Montreal and the station’s fuel reserves are paid for by Real Property Operations Unit (RPOU) North. The contracting for the sea-lift from Montreal to Thule, Greenland is executed by CJOC while the sustainment flights originate from 8 Wing.

7. CFS Alert’s existing C2 structure is a result of scope creep and has no existing linkage to its primary or even secondary role. Essentially, the RCAF through the 8 Wing Commander has command of the station with no control over the mission of CFS Alert. To further confuse the issue, it has several multi-directional support linkages dependent on the topic at hand. While CFS Alert’s lines of communication up, down and across do not currently hamper its operations, there exists sufficient substantiation to review the present and future C2 structure.

² Chief of Air Staff/A4 Construction Engineering 1 Canadian Air Division, *Transfer Implementation Plan: CFS Alert*, December 2008.

³ National Defence Intranet, 8 Mission Support Squadron. “CFS Alert,” last modified 12 December 2019, <http://rcaf.mil.ca/en/8-wing/lodger-units/cfs-alert-about-us.page>

⁴ Ibid.

Future Mandate

8. Canada's 2017 Defence Policy, *Strong, Secured, Engaged* (SSE) details the importance of Canada's North going into the future. Owing to climate change, it acknowledges that Arctic issues are becoming more relevant within the international community as Arctic and Non-arctic States are seeking economic opportunities linked to resource development and transportation routes. SSE further instructs new initiatives to enhance the CAF's ability to operate in the Arctic and adapt to a changed security environment. Specifically, to "enhance the mobility, reach and footprint of the CAF in Canada's North to support operations, exercises, and the CAF's ability to project force into the region"⁵. The need to provide a greater presence in Canada's Arctic will increasingly become important for sovereignty purposes.

9. The opening of the Northwest Passage (NWP), which cuts through the Canadian Arctic Archipelago, as well as the Transpolar Sea Route (TSR) linking the Atlantic and Pacific through international waters via the North Pole, is inevitable. Studies conducted projected the TSR to have sea-ice free conditions facilitating transit somewhere between 2040 and 2070⁶. Monitoring Canada's sovereignty and shipping lanes to the North will become increasingly important. Once the NWP and TSR open up to commercial shipping, there could be an opportunity for CFS Alert to expand its capabilities to become a forward operating location (FOL) for Search and Rescue (SAR) operations as well as emergency environmental response in the high North. Given CFS Alert's unique position as the most northerly inhabited location in the world, it could be in an advantageous position to quickly access vessels in distress. The nearest Canadian settlement, and Ranger Patrol, to CFS Alert is Grise Fjord, 725km to the south, on Ellesmere Island. The nearest RCAF SAR Squadrons are located in Winnipeg at 3990 km and Trenton at 4303 km to the south. This potential use for Alert was echoed in a Marine Policy article "Search and rescue and environmental response capacities will be severely limited... The settlement closest to the North Pole – Alert, Canada (pop. 62) – is still 441 NM away, with only an airfield manned by the Royal Canadian Air Force and no port due to persistent sea ice"⁷. What the article fails to acknowledge is that while the airfield is manned by the RCAF, there exists no permanent aviation asset at the Station, its ability to respond is negligible. Furthermore, evolving CFS Alert to a SAR FOL would require a significant investment in infrastructure for aviation and life support. Any change to the station's current state is environmentally sensitive; however, this will need to be balanced with the risk failing to comply with treaty obligations discussed in the following paragraph.

10. A treaty on Arctic SAR has been ratified by the five arctic countries: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States of America. Treaty E105240 is concerning the "Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in

⁵ Canada. National Defence, *Strong Secured Engaged: Canada's Defence Policy* (Ottawa: 2017), 79.

⁶ Mia M. Bennett, Scott R. Stephenson, Kang Yang, Michael T. Bravo, and Bert De Jonghe. "The Opening of the Transpolar Sea Route: Logistical, Geopolitical, Environmental, and Socioeconomic Impacts." *Marine Policy* 121, (2020): 104178. 2.

⁷ Ibid, 10.

the Arctic”⁸. The Treaty is a signed agreement to promote the establishment, operation and maintenance of adequate and effective SAR capabilities. Although the term “adequate and effective SAR capabilities” could be interpreted as subjective, given the time and space between the nearest SAR base, Canada is at potential risk of not fulfilling its commitment to the treaty. CFS Alert has no Search and Rescue capacity nor is it able to provide at-sea spill response capabilities however it could be an area for further detailed analysis. Currently, with no SAR capability located in the high Arctic, Canada’s response time for any incident would be considerable where speed and agility is a matter of life and death. Additionally, given the extreme distances from either Winnipeg or Trenton coupled with aircraft range there would be minimal time on target until the aircraft had to return for fuel or crew changes. The future Nanisivik Naval Facility could be an operating base for the Coast Guard however response time for a ship to reach the location of a distress call would be of marginal added value in extreme conditions when life is at stake. As we near the opening of the NWP, establishing a permanent aeronautical SAR capability at CFS Alert would assist Canada in meeting its treaty obligations.

Considerations for Future Reporting

11. When analyzing who CFS Alert should report to, given the existing current multi-directional C2 linkages and with a future focus of operations in the North, several organizations were considered. These organizations are CJOC, CFIOG, as well as 8 Wing.

- a. CJOC. CJOC leads most CAF missions both domestically and internationally. Domestically its role is to “plan and conduct all domestic and international operations except for specific operations conducted by Canadian Special Operations Forces Command”⁹. CFS Alert’s bi-annual replenishment is considered a domestic operation named Op BOXTOP. For domestic operations CJOC is assisted by six standing regional Joint Task Force Headquarters to include JTFN. Headquartered in Yellowknife, NWT, JTFN is physically located closest to CFS Alert. It reports directly to CJOC and is responsible for leading CAF continental operations in the North including the high Arctic region that lies north of 66.5 degrees latitude. It conducts several northern operations and exercises such as Op NANOOK which is conducted in several northern communities. Op NANOOK promotes partnership between various whole-of – government partners as well as the CAF, including Ranger units, local governments and communities indigenous to Canada’s North. Although, located within the same region, JTFN has no mandate similarity with CFS Alert. It has several roles, one of them being “to conduct Chief of Defence Staff (CDS)/Command CJOC authorized operations, planning and training”¹⁰. CJOC

⁸ Government of Canada, “Treaties: Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic,” assessed 2 February 2021, <https://www.treaty-accord.gc.ca/text-texte.aspx?id=105240>

⁹ Department of National Defence. *Canadian Forces Organizational Orders 9518 – Canadian Joint Operations Command (CJOC)*: file 1901-9518 (DDFP), 6 April 2017.

¹⁰ Department of National Defence. *Canadian Forces Organizational Orders 9986 – Joint Task Force (North) (JTFN)*: file 1901-9986 (DDFP), 13 November 2012.

also has integral units that have the mandate to provide support to CFS Alert and Op BOXTOP. 3 Canadian Support Unit (3 CSU) has a role to “provide materiel support to deployed Canadian Forces elements, units and personnel (domestic and international)”¹¹. It is unknown, at this time, why 3 CSU does not conduct the procurement for Op BOXTOP as a mission under CJOC. Although personnel stationed in Alert for 180 days earn a Special Service Medal and are required to conduct administration similar to deployments, despite its remoteness, CFS Alert is not considered an operational mission. In order for it to fall under CJOC’s responsibility, CFS Alert would need to be re-named as an ongoing mission similar to Op BOXTOP. Regardless, as a designated operation, the C2 for Alert would be able to be re-aligned better with its current strategic sovereignty purpose as well as reflect the nature of operations in such a geographically remote location.

- b. CFIOG. CFIOG’s mandate is to operate and maintain signals intelligence and geolocation facilities. Its official role in accordance with the CFOO is “to provide information operations capabilities through its allocated elements”¹², one of which is the SIGINT personnel at CFS Alert. Although CFS Alert shares the same mandate as CFS Leitrim Detachments in Gander and Masset, it is not considered CFS Leitrim Detachment Alert. CFIOG’s responsibility in Alert is solely to manage the SIGINT personnel and equipment. The facilities and other personnel are managed through 8 Wing. Should CFS Alert’s mandate remain the same for the foreseeable future, command of the Station should revert to CFIOG with 8 Wing as the supporting element with airlift for sustainment operations. This would bring both the role of CFS Alert and the role of CFIOG together under the same mandate: to operate and maintain signals intelligence and geolocation facilities. It would further reinstate the balance between supported and supporting commanders.
- c. 8 Wing. As stated, CFS Alert officially reports through the CO CFS Alert through to the Comd 8 Wing. 8 Wing has a designated role to “provide operationally capable air forces in accordance with assigned missions and tasks”¹³. Additionally, CFB Trenton has the mandate to “provide support services to the units and elements shown in the human resources management system command and control”¹⁴. Functionally, CO Alert reports to the CO of 8 Mission Support Squadron. 8 Wing could remain designated as the supporting command unless the

¹¹ Department of National Defence. *Canadian Forces Organizational Orders 3162 – 3 Canadian Support Unit (3 CSU)*, (file 1901-3162 (DDFP 7-6)), 13 November 2012.

¹² Department of National Defence. *Canadian Forces Organizational Orders 9985 – Canadian Forces Information Operations Group (CFIOG)*, (file 1901-9985 (DDM)), 27 May 2004.

¹³ Department of National Defence. *Canadian Forces Organizational Orders 9947 – 8 Wing (8 Wg)*, (file 9947-09 Jan 08), 13 September 1999.

¹⁴ Department of National Defence. *Canadian Forces Organizational Orders 0125 – Canadian Forces Base Trenton (CFB Trenton)*, (file 1901-0125 (DDFP 7)), 15 July 2009.

mandate changes to CFS Alert being a domestic operation which it would then fall under CJOC. Alternatively, CFS Alert could evolve as a SAR FOL in which case 8 Wing would be an appropriate reporting chain.

12. The appropriate C2 structure for CFS Alert is not clear-cut and becomes more complicated when including Op BOXTOP. There are several organizations that could potentially be appropriate as supporting and supported commands depending on current mandate and future vision for the station.

CONCLUSION

13. While CFS Alert's current C2 is effective, it is convoluted and not functionally derived further complicating the command versus control relationship. Additionally, the role of CFS Alert has not evolved, besides equipment and infrastructure modernization, in the past 71 years despite its potential. It is in a geographical location that could potentially serve of benefit going into the future to meet the demands of a future mandate with greater focus in the high North. An evolution of CFS Alert to a SAR FOL will allow speed and agility in Canada's response time to potential emergencies in the extreme North. Furthermore, it will allow Canada to meet its treaty obligations. Deep analysis such as costing and environmental impacts would need to be conducted in order to gain a better understanding of CFS Alert's capacities, C2 possibilities and potential government direction on its strategic purpose.

RECOMMENDATIONS

14. It is recommended to consider conducting deeper analysis, first to determine the feasibility of positioning a future SAR FOL at CFS Alert commensurate with the opening of shipping lanes in the North. Second, regardless of viability of a SAR FOL at CFS Alert, to review the existing C2 of CFS Alert and Op BOXTOP followed by a possible C2 structure complementary to its current and future mandate.

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