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IMPROVING AIR FORCE EXPEDITIONARY CAPABILITY THROUGH OPERATIONAL SUPPORT HUBS AND RAPID REACTION PACKAGES

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Service Paper

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IMPROVING AIR FORCE EXPEDITIONARY CAPABILITY THROUGH OPERATIONAL SUPPORT HUBS AND RAPID REACTION PACKAGES

AIM

1. This service paper will discuss the Royal Canadian Air Force's (RCAF) ability to deploy, through what is called the Air Force Expeditionary Capability (AFEC) program. It will argue that the RCAF can more rapidly and effectively deploy by leveraging the Canadian Armed Forces' (CAF) Operational Support Hubs (OSH), and utilizing scalable Rapid Reaction Packages (RRP) based upon AFEC Tables of Organization and Equipment (TO&Es). To improve the RCAF's readiness and operational effectiveness for rapid deployments, it is recommended that the RCAF continue to develop RRP, and that it consider the capabilities of the OSHs during the Operational Planning Process (OPP).

INTRODUCTION

2. The future global security environment will include traditional and non-traditional threats from state and non-state actors, with the speed and frequency of conflict and disasters increasing in comparison to today.¹ The future environment will therefore need a CAF that can respond with precision, and often quickly. Strong, Secure, Engaged (SSE), Canada's Defence Policy, identifies a CAF that is expected to be "agile, well-educated, flexible, diverse, and combat-ready. . . [to conduct] a wide range of operations at home and internationally."² SSE also outlines eight core missions that the CAF must be prepared to conduct, with the RCAF having a critical role in enabling each of these due to its ability to provide reach across Canada and to operations worldwide.³ For the RCAF to remain relevant and effectively support these operations it must remain 'Agile' and 'Integrated', while using its 'Reach' and 'Power'.⁴ The RCAF must also demonstrate its ability to respond quickly and decisively with different aircraft types when supporting operations from both established and austere airfields.⁵ Regardless of the operation, or the environment, operational sustainment has a vital role to play.⁶ Operational sustainment is a mission enabler as it ensures that the RCAF can successfully conduct and sustain air operations. At the strategic and operational levels, sustainment is comprised of the CAF support framework, which includes the Strategic Lines of Communication (SLOC) and OSHs.⁷ Tactically, it encompasses first and second line support, that are enabled by

¹ Department of National Defence, *Strong Secure Engaged - Canada's Defence Policy* (Ottawa: DND, 2019), 50-53.

² *Ibid.*, 57.

³ *Ibid.*, 17, 38.

⁴ Department of National Defence, *Royal Canadian Air Force Campaign Plan* (Ottawa: DND, 2019), 5.

⁵ Department of National Defence, *Strong Secure Engaged - Canada's Defence Policy* (Ottawa: DND, 2019), 39.

⁶ Department of National Defence, *Royal Canadian Air Force Campaign Plan* (Ottawa: DND, 2019), 5.

⁷ Department of National Defence, *Air Force Expeditionary Capability Concept of Operations* (Winnipeg: DND, 2012), K- 2/3.

flexible and scalable TO&Es which can respond to multiple deployments at any given time.⁸

3. The AFEC program is the RCAF's "expeditionary capability [that] enable[s] the rapid delivery and command of national military power," with support and sustainment provided in a consistent manner.⁹ More precisely, AFEC is designed to support two Lines of Operation (LoO); deliberate (LoO 1), and contingency (LoO 2).¹⁰ 2 Wing, as the RCAF's primary High Readiness (HR) expeditionary capability, provides the modular and scalable components to form an Air Task Force (ATF), and is responsible for the deployment, command, control and enablement of air expeditionary operations.¹¹ When employed, the RCAF is organized in a way that most effectively delivers air power while also exercising Command and Control (C2).¹² Depending on the mission, the 2 Wing ATF, the Managed Readiness Plan (MRP) ATF, or another ATF, are Force Generated (FG) and deployed to support operations.¹³ Within LoO 1, ATFs and Air Detachments (Air Dets) are FG based on geographical location and aligned with the Canadian Army, with 2 Wing providing the Airfield Activation and Surge Team (AFAST), and baseline ATF structure.¹⁴ For LoO 2, 2 Wing holds a HR posture in support of 1st Canadian Division (1st Cdn Div) for Canadian Joint Operations Command (CJOC) contingency plan (CONPLAN) operations.¹⁵

4. Critical to supporting the RCAF and 2 Wing on operations, is its personnel and equipment. Combined, these form TO&Es, which are based on the capabilities of the AFEC construct. Currently, 2 Wing's TO&Es are yet to be fully optimized into scalable RRP that could be deployed easily.¹⁶ As a result, there could be delays in maintaining, mounting, and deploying equipment for both deliberate and contingency operations. In

⁸ Department of National Defence, *2 Wing Force Employment Concept - Version 2* (Bagotville: DND, 2020), 10.

⁹ Department of National Defence, *Air Force Expeditionary Capability Concept of Operations* (Winnipeg: DND, 2012), 1.

¹⁰ *Ibid.*, 7.

¹¹ *Ibid.*, 7.

¹² Department of National Defence, *Air Force Expeditionary Capability Concept of Operations* (Winnipeg: DND, 2012), iii; Department of National Defence, *2 Wing Force Employment Concept – Version 2*, (Bagotville: DND, 2020), 25. Possible employment organizational structures include: Air Expeditionary Wing (AEW), Air Task Force (ATF), Air Expeditionary Support Detachment (AESD), or an Air Detachment (Air Det). Elements within each of these organizational structures can include: ATF Command/Headquarters (ATF Comd/HQ), ATF Coordination Element (ATF-CE), Air Dets, Operations Support Element (OSE), Mission Support Element (MSE) and Force Protection Element (FPE).

¹³ Department of National Defence, B-GA-402-005/FP-001, *Royal Canadian Air Force Doctrine: Expeditionary Air Operations* (Trenton: DND, 2020), 1. For additional information on the MRP refer to the *1 Canadian Air Division Managed Readiness Plan 2019* dated 29 August 2019.

¹⁴ Department of National Defence, *2 Wing Force Employment Concept – Version 2* (Bagotville: DND, 2020), 12.

¹⁵ *Ibid.*, 12, 15. RCAF support to CONPLANs includes domestic assistance to provinces such as floods and forest fires (CONPLAN LENTUS), Humanitarian Assistance and Disaster Response (HADR) operations (CONPLAN RENAISSANCE), Non-Combatant Evacuation Operations (NEO) (CONPLAN ANGLE), as well as Full Spectrum Operations (FSO) (CONPLAN JUPITER).

¹⁶ 2 Wing AFEC Coordinator, e-mail with author, 1 February 2021; Department of National Defence, *2 Wing Force Employment Concept – Version 2* (Bagotville: DND, 2020), 7.

the following parts, this paper will discuss possible improvements to the RCAF's ability to rapidly deploy:

- a. OSHs and why they should be leveraged; and
- b. TO&Es and the requirement to further develop the RRP concept.

DISCUSSION

Operational Support Hubs

5. Background. In 2008, the Chief of Defence Staff (CDS) directed the selection and development of the OSH concept to reduce costs and improve response times for CAF operations.¹⁷ Initially conceptualized from the work of the Canadian Operational Support Command (CANOSCOM) in 2006, OSHs are not intended to hold a permanent presence in a country, but rather they are to “support the dynamic nature of CAF operations.”¹⁸ Through logistics and diplomatic arrangements, OSHs act as enablers by extending mobility and reach.¹⁹ Currently, OSHs are established in Europe, Latin America and Caribbean, Kuwait, and West Africa, with additional hubs envisioned for East Africa, South East Asia, and North East Africa.²⁰ OSHs serve unique purposes for each region, and can be used in support of Other Government Departments (OGDs) as part of the Whole-of-Government (WoG) model.²¹

6. Capabilities. OSHs have a role in supporting all phases of CAF operations. They provide regional logistical support, and act as possible locations to stage operations from. Hubs are also locations where Host Nation Support (HNS) has been pre-arranged through Government to Government Technical Arrangements (TA), and Mutual Logistics Service Arrangements (MLSA).²² During the deployment and sustainment phases of an operation in particular, OSHs may provide a number of capabilities. These include: Reception Staging and Onward Movement (RSOM) activities, as well as the ability to warehouse and consolidate cargo. Contracting support, and contracting services through Deployed Logistics Support Services (DLSS) arrangements are also valuable capabilities that new

¹⁷ Allan Woods, “Canada’s military hunting for seven new foreign bases”, 5 June 2012, Last accessed 28 January 2021, https://www.thestar.com/news/canada/2012/06/05/canadas_military_hunting_for_seven_new_foreign_bases.html.

¹⁸ Lt Col Roy C. Bacot (USAF), “Global Movements and Operational Support Hub Concept: Global Reach for the Canadian Forces,” *The Canadian Air Force Journal*, Vol. 2, No. 3 (Summer 2009): 9; Department of National Defence, *CJOC Directive Operational Support Hubs* (Ottawa: DND, 2020), 2.

¹⁹ Department of National Defence, *CJOC Directive Operational Support Hubs* (Ottawa: DND, 2020), 2.

²⁰ *Ibid.*, 2.

²¹ Department of National Defence, *Delegation Instrument Change Request Form* (Ottawa: DND, 2020), 1.

²² Department of National Defence, B-GJ-005-400/FP001, *Canadian Forces Joint Publication – Support (CFJP 4-0) 1st Edition* (Ottawa: DND, 2016), 2-12.

and ongoing operations can utilize.²³ Finally, OSHs can provide aircraft support for missions that are transiting or will Remain Over Night (RON) in location.²⁴

7. For expeditionary operations, OSHs can be used to improve the RCAF's ability to deploy more effectively. This can be accomplished by reducing the time and cost associated with a deployment, but also decreasing the airlift required for the RCAF to deploy. These can be enabled through the following:

a. Support service arrangements and infrastructure. OSHs extend the global reach of the CAF through the 'hub and spoke' concept, which can be enabled by leveraging logistics services (i.e. DLSS Standing Offers). These services can be used to support air assets and personnel that are in-transit (i.e. as an Intermediate Staging Terminal), or for longer contingency operations where hub locations are used as a Deployed Operating Base (DOB). Utilizing CAF owned infrastructure, or infrastructure use agreements with the HN, such as for warehousing, Real Life Support (RLS) or aircraft terminal services, may also minimize the time and cost to secure services for RCAF personnel transiting or remaining in location, especially for rapid deployments; and

b. Warehousing of equipment. OSHs have the ability to store Initial Support (IS) or general camp build materiel for use by ATFs deploying to the region. This is particularly beneficial for those OSHs that are situated in regions where air power may be required more frequently due to the reoccurrence of natural disasters or conflicts involving state and non-state actors.²⁵ However, prior to storing any equipment at OSHs, item maintenance plan requirements would need to be considered. Maintenance plans could include utilizing OSH personnel, or conducting annual/bi-annual Technical Assistance Visits (TAV).²⁶ With ATFs being able to utilize equipment stored at OSHs, less equipment would require packaging and movement within Canada, possibly reducing AFEC deployment timelines. For these reasons, air power may also be delivered more responsively. Additionally, with less equipment needing to be shipped from Canada, valuable airlift capacity could be saved; an extremely relevant factor given the CAF's

²³ DComd CFJOSG, e-mail with author, 2 February 2021; Public Works and Government Services Canada, *Deployed Logistics Support (Africa) Standing Offer*, (Ottawa: PWGSC, 2019). DLSS contracts exist for OSH-WA and OSH-LAC, which include RLS, airport/ground handling services, general stores, and camp support services.

²⁴ Lt Col Roy C. Bacot (USAF), "Global Movements and Operational Support Hub Concept: Global Reach for the Canadian Forces," *The Canadian Air Force Journal*, Vol. 2, No. 3 (Summer 2009): 13.

²⁵ *Ibid.*, 10-12. The placement of OSHs is based upon assessments provided in the *CAF's Future Security Environment 2025*, which included focusing on the challenges of failing states, also known as the Failed States Index.

²⁶ Further consideration could be given to leverage HN Technical Arrangements (TA) in order to have logistics and maintenance support provided to CAF. For example, OSH Europe has a TA with the Wahn Air Force Barracks (*Luftwaffenkaserne Wahn*).

historical high demand for strategic airlift (i.e. CC177).²⁷ Finally, storing and using equipment from the OSH may also be more practical as some equipment is region specific (i.e. generators and their voltage), and may not be capable of functioning elsewhere.

8. For the previously mentioned reasons, the RCAF should consider utilizing the OSHs and the capabilities they provide when planning to conduct operations. In doing so, it may enable the RCAF to more rapidly deploy when resource constraints such as time, equipment, and airlift exist. However, it is recognized that OSHs may not always be the most practical to support the delivery of air power because of their location, services and infrastructure availability, or current activation status. Regardless, with the overarching intent of the OSH concept being to support CAF operations, and with its development ongoing, the RCAF should continue to consider their use while also discussing their current and future needs with the CJOC and the Canadian Forces Joint Operational Support Group (CFJOSG).²⁸

Rapid Reaction Packages (RRP)

9. To ensure that air power can be delivered in support of operations effectively, AFEC and its TO&Es must be aligned with the CJOC supported CONPLANS.²⁹ AFEC TO&Es should also enable the delivery of air power in various operating environments while being self-sufficient.³⁰ Specifically, AFEC TO&Es are intended to support a camp and provide RLS for up to 500 personnel in well-established environments, compared to up to 250 people in austere locations.³¹ To support these environments, and the delivery of air power, AFEC equipment includes items such as bed-down and fly-away kits for rapid airfield activation, logistics vehicles and trailers, heavy engineering and materiel handling equipment, as well as satellite communication equipment.³² Task tailored and scalable, TO&Es are also based on what support is or will be available in location (i.e. JTF operating in the same location or HNS is available).

10. To assist with operational planning, readiness levels, and mounting for deployments, the AFEC TO&Es should be built into RRP. In order to determine what equipment should be included in an RRP for future most-likely deployments, consideration could be given to review what equipment was deployed on past

²⁷ Based on the author's experience in coordinating airlift for multiple operations including RENAISSANCE and ANGLE deployments (2010-2016), when employed as Movement Officer at 4 Canadian Forces Movement Control Unit and the CJOC J4 Movement Operations and Planning Sections.

²⁸ Department of National Defence, *CJOC Directive Operational Support Hubs* (Ottawa: DND, 2020), 3. CFJOSG retains the C2 of an OSH when it is established and not linked to a mission (certain constraints do exist). The C2 of future OSHs remains with Comd CJOC until activated.

²⁹ Department of National Defence, *2 Wing Force Employment Concept – Version 2* (Bagotville: DND, 2020), 15, 28.

³⁰ Department of National Defence, *Air Force Expeditionary Capability Concept of Operations* (Winnipeg: DND, 2012), iii.

³¹ 2 Wing AFEC Coordinator, telephone conversation with author, 25 January 2021.

³² Department of National Defence, "Air Force Expeditionary Capability Program Power Point Presentation," 2020. Note that the equipment in this program has been or is waiting to be delivered, or is in the requirements definition phase with IOC and FOC TBD.

deployments. RRP should then be built in a way that they can be modified to a mission, and easily deployed.³³ In creating RRP that are based on these factors, both the RCAF's and 2 Wing's ability to meet its operational principles of readiness, responsiveness, relevancy, and agility can be assured.³⁴ A successful example of the RRP concept being used in the CAF, is with the 1st Cdn Div High Readiness Detachment (HRD) and their support to CJOC contingency operations. 1st Cdn Div HRD RRP include various types of equipment that can be deployed to deliver specific effects depending on the operational requirements. The RRP they have created include: 'Effect Delivery Capabilities' (i.e. medical, engineering, relief supplies), or 'Force Support Capabilities' (i.e. airfield support, advance party).³⁵ These RRP were successfully utilized on operations such as RENAISSANCE 13-01 and 15-01 by Commanders and key staff during the OPP leading-up to the deployment, and also to rapidly deliver effects within the affected nations.³⁶

11. Creating RRP for the RCAF and 2 Wing can assist Commanders and key staff during the OPP and estimate phases of a deployment by informing what equipment is required to deliver and support air effects. First, identifiable RRP will assist by informing time and space considerations. For example, by informing decision-makers what equipment is included in the RRP, they can have a better understanding of both the strategic lift requirements to move the equipment as well as the deployment timelines from Canada. This is highly critical for rapid deployments given airlift is the preferred Mode of Transportation (MoT), and is usually in high demand. Secondly, with pre-built RRP there can be a higher level of assurance that all of the equipment which is required to deliver air power has been factored into the RRP. This would assist in reducing the possibility that equipment is missed, and the operation impacted. Thirdly, building RRP in anticipation for future deployments can provide an understanding of how much space or footprint the equipment will occupy at the DoB, especially where space may be limited.

12. In addition to assisting with planning, having equipment packaged into RRP so that they are most conducive for movement by air can improve the RCAF's ability to rapidly deliver expeditionary operations. With this in mind, consideration should be made to procuring RRP equipment that is air transportable. However, this may not always be possible, and therefore to enable the rapid deployment of equipment, packaging options could include the use of Twenty-Foot Equivalent Unit (TEU) (i.e. sea container) or

³³ Department of National Defence, *2 Wing Force Employment Concept – Version 2* (Bagotville: DND, 2020), 28.

³⁴ *Ibid.*, 14-17.

³⁵ Department of National Defence, *CONPLAN 20855/14 RENAISSANCE – Humanitarian Operations Contingency Plan* (Ottawa: DND, 2017), 2, 12, Appendix 1 to Annex A.

³⁶ Department of National Defence, "Operation RENAISSANCE 13-1", last accessed 2 February 2021, <https://www.canada.ca/en/departement-national-defence/services/operations/military-operations/recently-completed/operation-rennaissance-13-1.html>; Department of National Defence, "Operation RENAISSANCE 15-1", last accessed 2 February 2021, <https://www.canada.ca/en/departement-national-defence/services/operations/military-operations/recently-completed/nepal.html>. See websites for quantifiable metrics on CAF and 1st Cdn Div's successes on these operations, which is attributable to their ability to rapidly deploy equipment. Successes are also based on the author's experience in working closely with 1st Cdn Div J4 and Task Force Movement Officer in support of these operations.

smaller containers (i.e. tri-can or quad-can). These containers may assist with cargo handling and security of RRP's while in-transit and at destination, however, their size may also increase the amount of lift required to move them. Finally, the AFEC deployment timelines could be reduced by pre-positioning IS or 'Force Support Capability' RRP's at Airports of Embarkation (APOE) (i.e. Trenton) for their rapid deployment via air. Subsequently, based upon what the Commander and staff determine are the required follow-on effects for the operation, the RRP concept could be used to facilitate the remainder of the deployment process. During this process, attention should be given to shipping RRP's intact, not as partial RRP's, in order to ensure that all of the equipment required for the effect is delivered together. Dividing RRP's without considering its impact may impede the RCAF's ability to rapidly and effectively deliver air power.

13. Lastly, all RRP's and their requisite equipment will include a personnel component that must be accounted for. To ensure that the RRP's can support and deliver their intended effects, the Canadian Forces Task, Plans, and Operations (CFTPO) process, and the RCAF's Managed Readiness Plan will need to be fully utilized to ensure that those who possess the correct occupations and qualifications are selected for deployment.³⁷ In doing this, it will also ensure that FG activities such as theatre mission-specific training (TMST) and readiness levels (i.e. Annual Personnel Readiness Verification (APRV) cycle and Departure Assistance Group (DAG)), are completed in a timely manner. Personnel are the RCAF's and 2 Wing's centre of gravity as it enables expeditionary operations, and therefore it must be given the utmost attention when delivering air power.³⁸

CONCLUSION

14. The future global security environment will continue to demand a responsive and relevant RCAF that can deliver air power around the world and across the spectrum of conflict.³⁹ The AFEC program, as the RCAF's mechanism to conduct LoO 1 and LoO 2, is key to supporting the CAF in the Future Operating Environment (FOE). Critical to enabling air operations, and the operational readiness of the RCAF, is the requirement for a robust and resilient sustainment system. In the RCAF's current state, and with the AFEC in particular, the ability to respond effectively and efficiently on deliberate and contingency operations could be improved by leveraging OSH capabilities and the RRP concept.

15. With the requirement for an 'Agile' and 'Integrated' RCAF that can provide 'Reach' and 'Power', is the requirement to have TO&Es that can be built into RRP's. During the OPP, mounting, and deployment phases of an RCAF expeditionary operation, the RRP concept can be used to significantly improve the RCAF's ability to be ready, responsive, relevant, and agile.

³⁷ Department of National Defence, *1 Canadian Air Division Managed Readiness Plan 2019* (Winnipeg, DND, 2019).

³⁸ Department of National Defence, *2 Wing Force Employment Concept – Version 2* (Bagotville: DND, 2020), 13.

³⁹ Department of National Defence, *Royal Canadian Air Force Future Concepts Directive Part 2: Future Air Operating Concept* (Ottawa: DND, 2016), 4.

16. A failure to consider the use of the OSHs during the OPP, or to further developing AFEC RRP, may impact the RCAF's ability to deliver air power both effectively and efficiently, especially when in resource constrained environments.

RECOMMENDATION

17. To improve the RCAF's readiness and operational effectiveness for rapid deployments, it is recommended that the RCAF give additional consideration to utilizing the capabilities of the OSHs, as well as to further developing the AFEC TO&Es into RRP. Should these recommendations be adopted, RCAF supplementary plans and standing operation orders should be amended as required.⁴⁰

⁴⁰ For example, 1 Canadian Air Division Joint Forces Air Component Commander (JFACC) Standing Operation Order for Op LENTUS and Supplementary Plan for Op RENAISSANCE.

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http://www.thestar.com/news/canada/2012/06/05/canadas_military_hunting_for_s_even_new_foreign_bases.html.