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Bellerophon Revisited: Making the Case for a Canadian Air Assault Capability

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Exercise Solo Flight

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Bellerophon Revisited: Making the Case for a Canadian Air Assault Capability

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BELLEROPHON REVISITED: MAKING THE CASE FOR A CANADIAN AIR ASSAULT CAPABILITY

In a global security environment defined by complexity and unpredictability, Canada requires an agile, well-educated, flexible, diverse, and combat-ready military capable of conducting a wide range of operations at home and internationally.

– Strong, Secure, Engaged: Canada's Defense Policy, 2017.

Within the domain of modern warfare the principles of the manoeuvrist approach remain paramount, especially the ability to break an enemy's cohesion and will to fight.¹ While there are a number of methodologies available to military forces to achieve this effect, one of the most valuable is the ability to rapidly project military power over vast distances irrespective of natural or man-made obstacles.² While this can be accomplished in a few different ways, one of the most effective is derived through combination of helicopters and ground forces. Commonly known as air assault, this capability can be most aptly characterized as an, "Operation in which assault forces, using the mobility of rotary-wing assets and the total integration of available firepower, maneuver under the control of a ground or air maneuver commander to engage enemy forces or to seize and hold key terrain".³

This paper will endeavour to show the necessity of air assault operations and the changes the Canadian Armed Forces (CAF) requires to produce its own capability, which would enable the rapid projection of power and accomplish many of the CAF's core missions.⁴ It will open

¹ Paul Gibson, *The Development of the United Kingdom's Air Manoeuvre Capability* (Fort Leavenworth, K.S.: US Army Command and General Staff College, 2001), 2.

²United States, Department of the Navy Marine Corps, *Air Assault Operations*, MCTP 3-01B (Washington, D.C.: Department of the Navy 2019), 4-1.

³United States, Department of the Army, *Airborne and Air Assault Operations*, FM 3-99 (Washington, D.C.: Department of the Army, 2015), 8-1.

⁴ The eight core missions are: 1) Detect, deter and defend against threats to or attacks on Canada; 2) Detect, deter and defend against threats to or attacks on North America in partnership with the United States, including through NORAD; 3) Lead and/or contribute forces to NATO and coalition efforts to deter and defeat adversaries, including terrorists, to support global stability; 4) Lead and/or contribute to international peace operations and stabilization missions with the United Nations, NATO and other multilateral partners; 5) Engage in capacity building to support the security of other nations and their ability to contribute to security abroad; 6) Provide assistance to civil authorities and law enforcement, including counter-terrorism, in support of national security and the security of

with a quick review of the evolution of air assault to understand the genesis of the capability, and to highlight its early recognition as being a necessity within a military force. Once this has been established the relevancy and applicability of air assault to modern warfare will be discussed. To facilitate an appreciation of the advantages air assault can provide some practical examples of its employment on operations will then be explored. The discussion will then shift to an examination of the Canadian force development requirements for an air assault capability by analyzing the existing gaps in the CAF's equipment holdings and doctrine. Some consideration will then be given to the kind of force structure the CAF would need to support to the generation and upkeep of an air assault capability. Lastly, the CAF's core missions will be reviewed, and an explanation will be given as to how a Canadian air assault force can achieve half of them.

Evolution of Air Assault

From a western military perspective the evolution of the air assault capability dates back to the Korean War, where helicopters were incorporated into American military operations in greater frequency. In 1951, during Operation Summit, 224 United States marines and over 17,000 pounds of cargo were lifted by helicopter to their designated remote battle positions in four hours, marking the first time in history a combat unit was inserted into an area of operations by helicopter.⁵ The tremendous success of this operation drew high praise from multiple American generals who commented that, "A bright new chapter in the employment of helicopters" had begun that would be of, "Lasting value to all the services".⁶ In the years that

Canadians abroad; 7) Provide assistance to civil authorities and non-governmental partners in responding to international and domestic disasters or major emergencies; and 8) Conduct search and rescue operations. Canada, Department of National Defence, *Strong, Secure, Engaged: Canada's Defense Policy* (Ottawa: National Defence, 2017), 82.

⁵ Lynn Montross, Hubard D. Kuokka, and N. W. Hicks, *The East-Central Front*, Vol. 4, U.S. Marine Operations in Korea 1950-1953 (Washington, D.C.: Historical Branch, G-3 Headquarters, U.S. Marine Corps, 1962), 208.

⁶ Ibid.

followed innovation within the helicopter industry increased, leading to the development of larger and more powerful aircrafts.

During the Algerian War the French military employed helicopters extensively to transport troops and conduct helicopter-borne assaults, pioneering the first use of armed helicopters to protect transport helicopters and assist ground forces through close support.⁷ This caught the eye of the United States Secretary of Defense Robert McNamara who wrote a memo in 1962 indicating that helicopters, “Appear to offer the possibility of a quantum increase in effectiveness”, and commissioned a board to study the feasibility of enhancing the tactical mobility of the United States Army.⁸ In their final report the Howze Board recommended full adoption of the airmobile concept which included the creation of air assault divisions, air cavalry combat brigades, and accelerated procurement of additional helicopters to facilitate this initiative.⁹ This resulted in the creation of the 11th Air Assault Division (Test), which was transformed into the 1st Cavalry Division (Airmobile) in 1965.¹⁰

Shortly after their transition the 1st Cavalry Division deployed to Vietnam, participating in large scale air assault operations such as the Battle of La Drang and Operation Junction City. These successful engagements reinforced the validity of air assault as a viable and effective means of conducting combat operations. In particular they highlighted that the integration of attack helicopters to provide close air support and protection was the critical to the success of the

⁷ Charles R. Shrader, *The First Helicopter War: Logistics and Mobility in Algeria, 1954-1962* (Westport, C.T.: Praeger Publishers, 1999), 123.

⁸ United States, Department of the Army, *U.S. Army Tactical Mobility Requirements Board - Final Report* (Fort Bragg, N.C., 1962), 142.

⁹ *Ibid.*, 132.

¹⁰ Marshall A. Hagen, *The Air Assault Division - Is It a Viable Strategic Contingency Force for the Twenty-First Century?* (Fort Leavenworth, K.S.: US Army Command and General Staff College, 1998), 7.

air assault concept.¹¹ Beyond serving as a proving ground, the efforts of 1st Cavalry Division during the Vietnam War laid the foundation for the air assault capability as it is known today.¹²

Necessity of Air Assault

Despite having been established as a form of warfare over a half-century ago, air assault remains a highly relevant and important capability in responding to the unpredictable and complex nature of conflict in the 21st century and beyond. In addition to the natural and man-made barriers that may prevent access to key terrain and infrastructure by ground forces, advancements in anti-access/area denial (A2/AD) weapons are making it increasingly more difficult to provide the operational access necessary to project military power.¹³ The inherent mobility and firepower of air assault operations enables the maneuver of forces to, “Rapidly achieve tactical surprise and mass forces, regardless of obstacles, without dependency on ground lines of communication”.¹⁴ By quickly gaining positions of tactical advantage, through the integration of rotary wing aircrafts and ground forces, air assault operations can quickly seize and maintain the initiative and apply combat power over extended distances directly against an enemy’s center of gravity.¹⁵ When employed as a vertical envelopment, air assault operations take advantage of the third dimension and are intended to, “Attack the rear and flanks of an enemy force” with the objective of either cutting off or turning them.¹⁶

In assessing the capabilities air assault provides, the powerful combination of attack helicopters and ground combat forces produces a responsive, flexible, agile and versatile force

¹¹ Kevin J. Dougherty, “The Evolution of Air Assault,” *Joint Force Quarterly: JFQ*, no. 22 (1999): 56.

¹² United States, Department of the Army, *Division Operations*, FM 71-100 (Washington, D.C.: Department of the Army, 1996), 1-7.

¹³ United States, *Airborne and Air Assault Operations*, 1-1.

¹⁴ United States, *Air Assault Operations*, 1-1.

¹⁵ Jonathan E. Reisher, “Air Assault School: Foundation of the Air Assault Nation,” *Infantry (Online)* 104, no. 2 (2015): 64.

¹⁶ United States, *Air Assault Operations*, 4-7.

that can fulfill a number of distinct combat roles and tasks.¹⁷ These include, but are not limited to, the ability to: attack from any direction and secure key objectives in complex terrain inaccessible by other means; swiftly react to opportunities or threats by rapidly re-deploying forces at decisive points in the operation, and provide responsive reserve forces that can reinforce friendly units.¹⁸ Air assault forces can also take advantage of fast rope systems to insert and extract their personnel when no landing zones are available.¹⁹ In addition to combat operations, they can also participate in stability operations. Their presence within a given operations area can act as a deterrent to quell further acts of aggression, and if the situation continues to deteriorate they can easily shift to combat operations.²⁰

Air Assault in Modern Operations

To better understand the necessity and utility of air assault operations, it is useful to examine the ways in which Canada's closest allies have employed its capabilities in recent conflicts. During Operation Desert Storm, in 1991, the American 101st Airborne Division conducted the biggest air assault in history penetrating over 250 kilometers into Iraqi held territory in three days.²¹ To accomplish this Apache attack helicopters escorted 60 Black Hawk and 40 Chinook transport helicopters, in multiple lifts, to quickly seize and hold successive objectives.²² Once they initially secured forward operating base (FOB) Cobra, 150 kilometers behind Iraqi lines, this permitted the 101st to use their transport helicopters to sling load

¹⁷ Brent A. Cornstubble, *The Air Assault Raid: A Mission for the New Millennium* (Fort Leavenworth, K.S.: US Army Command and General Staff College, 1996), 4.

¹⁸ United States, *Airborne and Air Assault Operations*, 8-5.

¹⁹ Reisher, *Air Assault School: Foundation of the Air Assault Nation*, 64.

²⁰ Hagen, *The Air Assault Division. Is It a Viable Strategic Contingency Force for the Twenty-First Century?*, 18.

²¹ United States Department of Defense, *Conduct of the Persian Gulf War: Final Report to Congress: Pursuant to Title V of the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act of 1991 (Public Law 102-25)* (Washington: Department of Defense, 1992), 361.

²² Jason S. Raub, *The Decline of Air Assault Operations* (Fort Leavenworth, K.S.: US Army Command and General Staff College, 2016), 22.

additional equipment and supplies into the base such as wheel vehicles, artillery, and engineering equipment.²³ This transformed FOB Cobra into a forward arming and refuelling point (FARP) within a matter of hours, allowing the 101st to extend its operational reach. In the days that followed the 101st conducted successive air assault operations an additional 100 kilometers inside Iraq, resulting in the successful isolation and cutting off of Iraqi forces.²⁴

Seeing the usefulness of air assault operations the United Kingdom made the decision to purchase attack helicopters in 1996, and eventually began integrating them with airmobile units to create their own air assault formations. The Chief of the General Staff for the British Army remarked that he had, “No doubt whatsoever that the attack helicopter will represent the biggest single enhancement to the Army's capability for many years. It will change the way we go to battle.”²⁵ Three years later, during Operation Agricola in Kosovo, the British 5th Airborne Brigade launched an air assault operation to secure the Kacanik Defile and enable a forward passage of lines by brigades from Britain, Italy, Germany and France.²⁶ The operation, comprising eight Chinook and six Puma transport helicopters supported by Apache attack helicopters, enabled 1,400 soldiers from the 5th Airborne Brigade to secure the defile in less than three hours.²⁷

While the previous examples have shown what can be achieved by larger air assault forces, Operation Iraqi Freedom V in 2007 provides a case study of what can be accomplished by a smaller force. At the start of their deployment a battalion from the American 15th Infantry Regiment quickly realized that they were most susceptible to improvised explosive device (IED)

²³ Reisher, "Air Assault School: Foundation of the Air Assault Nation," 64.

²⁴ Raub, *The Decline of Air Assault Operations*, 22.

²⁵ Gibson, *The Development of the United Kingdom's Air Manoeuvre Capability*, 1.

²⁶ Ministry of Defence United Kingdom, *Air Manoeuvre*, Joint Doctrine Note 1/20 (Shrivenham: Development, Concepts and Doctrine Centre, 2020), 18.

²⁷ Ibid.

threats when conducting ground movement, as the enemy would saturate the area with these devices as a form of AD.²⁸ Accordingly, they promptly adapted their tactics and began conducting air assault operations instead as it allowed them to better protect their forces from the IED threat, quickly traversing the area of operations to seize the objective, and rapidly extracting.²⁹ Additionally, the advanced night vision optics of the supporting helicopters permitted the execution of effective night operations. Over the course of their 14-month deployment the battalion executed over 20 successful air assault operations, that resulted in the kill or capture of hostile forces and the degradation of their capabilities.³⁰

Canadian Air Assault Force Development

Should Canada decide that it is in its best interest to generate an air assault capability that can produce comparable operational effects to that of its allies, significant gaps within the CAF's equipment holdings and doctrine will need to be addressed. In terms of equipment, the CAF lacks the helicopters necessary to support an air assault capability. This was made clear in a report from the *Standing Senate Committee on National Security and Defence* which stated that the Government of Canada (GoC) should, "Prioritize the replacement of 55 of 95 Griffons with a non-civilian medium-to heavy-lift military helicopters with enough speed and lift capacity to support military needs, and add 24 attack helicopters which will be able to protect the Chinook fleet and military personnel."³¹ The report went on to elaborate on the lessons Canada learned during Afghanistan mission about the benefits a robust helicopter fleet can provide in these types of operations.³² Noting that Canada was unable provide its own helicopter assets and relied on

²⁸ Jack Marr et al., "The Combined Arms Battalion as an Air Assault Task Force," *Infantry* vol. 97, no. 4 (2008): 16.

²⁹ *Ibid.*, 15.

³⁰ *Ibid.*

³¹ Canada, Parliament Senate Standing Committee on National Security Defence, *Reinvesting in the Canadian Armed Forces: A Plan for the Future: Report of the Standing Senate Committee on National Security and Defence* (Ottawa: Senate, 2017), 16.

³² *Ibid.*, 45.

the support of allied nations, it further recommend that, “The government expand the fleet of heavy-lift helicopters from 15 to 36”.³³ In making these recommendations the committee also recognised the need for a Canadian air assault capability indicating that the GoC should, “Accelerate plans to acquire new tactical helicopter capability to support the army, including the incorporation of an armed attack component.”³⁴

In reviewing current CAF doctrine, the *Airborne Operations – Airmobile* manual contains a modest amount of information regarding air assault operations. Unfortunately, rather than treating air assault as a separate and unique concept it is nested within airmobile operations.³⁵ The publication does, however, acknowledge the difference between air assault and airmobile operations noting that air assault operations involve, “Intimate support fires from [*sic*] aviation escort that are provided concurrently with the ground assault”.³⁶ Despite making this distinction, the manual does not divide airmobile and air assault into sperate sections in contrast to the United States Army manual *FM 3-99 Airborne and Air Assault Operations* that does.³⁷ This complicates matters as it becomes difficult to differentiate airmobile operations from an air assault operations given there similar qualities, especially when discussing the principles, planning, and execution of these distinct operations.

To ensure clarity and specificity regarding the planning and conduct of air assault operations the CAF would need to revise its doctrine to treat air assault as a distinct methodology, much like the United States Marine Corps that wrote a separate manual on the subject.³⁸ Additionally, the CAF would need to create its own centre of excellence (CoE) to lead

³³ Ibid., 48.

³⁴ Ibid.

³⁵ Canada, Department of National Defence, *B-GL-324-002/FP-001 Airborne Operations - Airmobile* (Ottawa: Canadian Army, 2012), iii.

³⁶ Ibid., 1-3.

³⁷ United States, *Airborne and Air Assault Operations*, iv.

³⁸ United States, *Air Assault Operations*, i.

and manage the development of air assault doctrine, and to promulgate knowledge based articles regarding the revised tactics, techniques and procedures (TTPs) when conducting these operations. This centre of excellence would also need to contain an air assault school to deliver standardized, high-quality, and consistent training to force generate the skilled personnel required to sustain this capability.³⁹

Canadian Air Assault Force Structure

Further to the procurement of additional equipment, rewriting of doctrine, and the establishment of a CoE, the CAF would also need to make some significant changes to its structure and design to support the inclusion of an air assault capability. In reviewing the current Canadian doctrine on air assault it indicates that, “The amount of resources and detailed planning necessary to successfully execute an air assault dictates that they cannot effectively be employed independently below the brigade level”.⁴⁰ In assessing the current composition of the Canadian Army’s (CA) brigades they are symmetrical in design, and are not conducive to supporting an air assault capability as there is only one light infantry battalion in each. Should the CA be willing to assume some increased risk and assign the air assault capability to one of its symmetrical brigades a further complication exists. The *Master Implementation Directive (MID) for Light Forces* recognizes that at present the CA’s, “Light Infantry Battalions (LIBs) are not specifically integrated, designed, equipped, nor purpose-built”, to support these kinds of advanced capabilities.⁴¹

In considering a future force structure for the CA, one possible solution that would greatly assist in the enablement of an air assault capability would be a shift to an asymmetric

³⁹ Reisher, *Air Assault School: Foundation of the Air Assault Nation*, 63.

⁴⁰ Canada, Department of National Defence, *Airborne Operations – Airmobile*, 1-4.

⁴¹ Canada, Department of National Defence, *Master Implementation Directive – Light Forces* (Ottawa, ON: Canadian Army, September 26, 2017), 3.

organizational structure. Within this concept the current Canadian brigade groups would be reformed into light, mechanized, and armoured formations.⁴² This would allow the centralization of resources, equipment, and experience to focus on and enhance each brigade's niche capabilities. For the light brigade they could concentrate their efforts on, "Unique mobility requirements [that] could be used in tandem with helicopters for air assault".⁴³ This would support the CA's vision of a redesigned and purpose-built light force organization that is responsive, agile, and can, "Generate fighting power without dependency on armoured fighting vehicles".⁴⁴ To facilitate this vision, and the air assault capability in particular, the light brigade would have to be co-located with Royal Canadian Air Force (RCAF) air assets. This in turn would ensure, "The joint integration of RCAF strategic and operational air movements as well as rotary wing assets for integral tactical aviation support".⁴⁵ Additionally, having these units in proximity of each other would allow greater integration between them which is critical to the success of air assault operations.⁴⁶

Canadian Air Assault Force Employment

Considering the aforementioned utility of air assault, its characteristics, and the notable achievements it had when deployed on operations, the generation of this capability would enable the CAF to achieve half of its core missions. Given the combat focused nature and attributes of air assault operations core missions one through four are most applicable, though the remainder could be considered as the capability evolves.⁴⁷ In reviewing the Canadian Joint Operations Command (CJOC) high readiness contingency plans for domestic and expeditionary

⁴² Cole Petersen, "The Asymmetric Army," *The Canadian Army Journal*, Vol.19, no. 1 (2021): 54.

⁴³ Ibid.

⁴⁴ Canada, *Master Implementation Directive – Light Forces*, 4.

⁴⁵ Ibid., 6.

⁴⁶ Raub, *The Decline of Air Assault Operations*, 14.

⁴⁷ Canada, *Strong, Secure, Engaged: Canada's Defense Policy*, 82.

operations in support of these core missions, they all require the CA to have, “Effects in an area of operations in less than a week”.⁴⁸ In an effort to enhance their capacity in this regard, the CA defined the necessity to have, “A global response task force, based on a light force construct, that provides highly deployable and scalable forces offering a wide range of options to the GC [*sic*] for emerging crises around the world and the far reaches at home”.⁴⁹ The mobility and firepower of air assault would make it an ideal rapid response force to meet this need, as it can deploy in the timeframe required and has the versatility to perform a wide variety of tasks.

Looking more specifically from a domestic perspective, a Canadian air assault force would be a strong deterrent to possible aggressors and a valuable asset in the defence of Canada. As one of the largest countries in the world with a small military, the ability to quickly deploy CAF personnel and equipment across Canada’s wide territory is vital to its security. The employment of an assault capability would address this need and require minimal additional resources. As Canada looks to further develop and enhance its partnership with the United States in the defence of North America, the inclusion of an air assault capability would enable a greater Canadian contribution to the continent’s protection.⁵⁰ This is particularly applicable to the arctic as international activity in the region continues to increase due to resource scarcity. In response Canada and the United States have increased their arctic training, recently completing an air assault exercise together. While Canada’s participation in this exercise was minor, the creation of its own air assault force would enable a more meaningful contribution and increase collaboration with its closest ally.⁵¹

⁴⁸ Canada, *Master Implementation Directive – Light Forces*, 2.

⁴⁹ Canada, *Advancing with Purpose: The Canadian Army Modernization Strategy* (Ottawa, ON: Canadian Army, 2020), 31.

⁵⁰ Canada, *Strong, Secure, Engaged: Canada's Defense Policy*, 82.

⁵¹ North American Aerospace Defense Command (NORAD), Alaskan Command Public Affairs, “Arctic Warrior 21: Extreme Environment Builds Resilience and Readiness,” last modified [or accessed] 15 May 2022,

On an international level, an air assault force would provide Canada with another capability that it could contribute to North Atlantic Treaty Organization (NATO), United Nations (UN), or other coalition missions.⁵² Given the recent events in Ukraine an air assault force could be deployed to quickly reinforce NATO's enhanced forward presence battlegroups in eastern Europe, or assist in stability operations in Africa. In 2015 the Netherlands deployed their 11th Air Assault Brigade to Mali, as part of the UN mission Minusma, to assist in peace support operations.⁵³ Once in theatre they conducted long range patrols, dismantled weapons caches, and captured Tuareg fighters responsible for the creation of IEDs.⁵⁴ Having seen the advantages of their air assault brigade the government of the Netherlands has been making a significant investment into increasing their capabilities as part of Germany's Rapid Forces Division.⁵⁵ As Canada looks to integrate its forces within multinational alliances or coalitions, the provision of a Canadian air assault force would greatly increase its allied interoperability.

Conclusion

In summary serious consideration should be given to the generation of a Canadian air assault capability, as it can enable the rapid projection of power and accomplish many of the CAF's core missions. In reviewing the history of air assault, it becomes clear that its architects knew early on that it would be a powerful force on the battlefield. Through its continual evolution it has remained a very relevant and useful capability on the modern battlefield due to its enhanced mobility and firepower, as evidenced by its performance in recent conflicts. Should

<https://www.norad.mil/Newsroom/Article/2506383/arctic-warrior-21-extreme-environment-builds-resilience-and-readiness/>.

⁵² Canada, *Strong, Secure, Engaged: Canada's Defense Policy*, 82.

⁵³ Netherlands, Ministry of Defense, "Dutch Contribution in Mali," last modified [or accessed] 15 May 2022, <https://www.defensie.nl/onderwerpen/missie-in-mali/nederlandse-bijdrage>.

⁵⁴ Ibid.

⁵⁵ Netherlands, Ministry of Defence, *Defence White Paper: Investing in Our People, Capabilities and Visibility*. (The Hague: Ministry of Defence, 2018), 25.

Canada wish to generate its own air assault capability, it will need to purchase attack helicopters and increase its medium and heavy lift transport helicopter fleet. Consideration should also be given to rewriting Canada's doctrine to clearly indicate the principles, planning, and execution of air assault operations, as well as the creation of an air assault CoE. The CAF should also consider making changes to its existing light force structures to better enable the generation and upkeep of air assault forces. When considering the various needs for a rapid response force, an air assault force provides the scalability, mobility, and utility necessary to respond to crises both at home and abroad.

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