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Exercise Solo Flight

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RCAF LEADERSHIP: THE NEED FOR A DOCTRINE

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Yet great military leaders are an enigmatic combination of nature and nurture.

General John A. Shaud, USAF¹

The Royal Canadian Air Force (RCAF) was the last Canadian military service to be established.² It was created to fulfil the need to deliver and develop expertise in the realm of air power, based on principles notably enunciated by air enthusiast such as General Hugh Trenchard.³ Ever since the RCAF's inception in 1924, the debate continues regarding the benefits and drawbacks of creating an independent service for delivering air power, resulting in a strong inter-service rivalry between each environmental element of the Canadian Armed Forces (CAF).

Consequently, some have perceived significant differences in the way leadership is exercised between the air force and the army in particular. For instance, there is a belief that the essence of the army leadership resides in the fact that officers, NCOs and soldiers go to war and fight together, thus sharing the risk in concert. On the other hand, the air force traditionally sends their officers to do the fighting (pilots), and hence it seems that a different kind of leadership expectations has ensued.⁴ Many of these views are based on conjectures about what leadership should look like, often emanating from stereotypes and not on factual research.

¹ Karen Currie, "Air Force Leadership Study, The Need for Deliberate Development," *Air Force Research Institute Papers* (Maxwell Air Force Base: Air University Press, 2012), vii.

² The RCAF was first established as a service in 1924, but it later became an environmental command in 1975 after the amalgamation of all Canadian air force units under the name of Air Command following the unification process of the CAF (reference: Dr. Allan English, and Col (Ret) John Westrop, *Canadian Air Force Leadership and Command : The Human Dimension of Expeditionary Air Force Operations* (Trenton: Canadian Forces Aerospace Warfare Centre, 2007): 55. Hence, the term service will be used to designate the RCAF prior to 1975, while the term environment or element will be used in the context of 1975 to the present.

³ Scot Robertson, "The Development of Royal Air Force Strategic Bombing Doctrine Between the Wars." *Airpower Journal* 12, no. 1 (Spring 1998): 40.

⁴ George R. Mastroianni, "Occupations, Cultures, and Leadership in the Army and Air Force," *Parameters* 35, no. 4 (Winter 2006): 79.

Nonetheless, it appears that there are sensible differences in leadership between all elements and this is supported by the fact that the CAF leadership doctrine promotes a “military ethos [that] must accommodate the separate identities forged by combat at sea, on land and in the air.”⁵ However, the RCAF has not yet published a doctrinal manual to define what air force leadership is, which begs the question: is there a distinctive leadership approach required in the air force? One could also ask: is an air force Commander (CO) required to be qualified on the type of aircraft his squadron is flying to exert sound leadership? Finally, what can the RCAF do to improve the leadership training of its officer corps?

Using recent articles and books written on the subject, this essay will endeavour to demonstrate the unique aspects of the air force influencing the leadership style of its members. It posits that distinct external factors in the security environment and the unique culture embedded in the air force call for a particular style of leadership, exclusive from the army and the navy. Furthermore, these factors combined will highlight the mandatory requirement of operationally flying squadron commanders to be qualified aircrew to exercise legitimate command and gain the trust of their subordinates. In the end, it will outline the need of creating a RCAF leadership doctrine to better support the development of its future leaders.

In the first section of this dissertation, the uniqueness of the air force leadership culture is explored, as defined from various theories written on the subject. The second part evaluates the modern security environment impacting air force leadership approach; while the third section analyses the reasons a CO is required to be qualified on the type of

⁵ Department of National Defence, A-PA-005-000/AP-001, *Duty with Honour* (Kingston: Canadian Defence Academy, 2009): 76.

aircraft he/she is commanding. Ultimately, the last portion of this essay describes the important doctrinal elements for developing future air force leaders.

THEORY OF AIR FORCE LEADERSHIP CULTURE

*The military has a distinct advantage over most of corporate America in terms of leader development. The military develops its own. Growing one's leaders has immense advantages because the organization controls its own end product.*⁶

USAF Air Force Research Institute Papers

The military is one of the few corporations investing considerably amount of money and time to develop its own leaders. This particular aspect brings what Dr. Allan English describes, as “a unique culture that influences acceptable leadership styles in that service.”⁷ In the same vein, the CAF leadership doctrine defines culture as “a shared and relatively stable pattern of behaviours, values, and assumptions that a group has learned over time as an effective means of maintaining internal social stability.”⁸ An officer spends much of his early formative years isolated in his environment, thus it is only natural that his service culture “bears a distinctive imprint” on him.⁹ This leads to the following question: what are the characteristics of the air force leadership modus operandi? This section will consist of a review of theories regarding the different kind of power authority and leadership styles as applicable to the culture of the air force. Subsequently, it will detail the distinct culture shaping the air force leadership.

⁶ Karen Currie, “Air Force Leadership Study, The Need for Deliberate Development,” 11.

⁷ Dr. Allan English, “The Masks of Command: Leadership Differences in the Canadian Army, Navy and Air Force,” *Inter-University Seminar on Armed Forces and Society Conference* (Kingston: Canadian Forces Leadership Institute, 2002): 2.

⁸ Department of National Defence, A-PA-005-000/AP-004, *Leadership in the Canadian Forces: Conceptual Foundations* (Ottawa : DND Canada, 2005) : 129.

⁹ Dr. Allan English, “The Masks of Command: Leadership Differences in the Canadian Army, Navy and Air Force,” 3.

Air Forces Power Authority

According to the CAF leadership doctrine, there are two major classes of leadership power within the military: position power (reflecting the appointment or rank conferring power to that person) and personal power (power emanating from the socially valued and useful qualities of an individual, granting him greater credibility and authority).¹⁰ Additionally, Dr. Alan Okros describe a third kind of power, labelling it “professional power,” which is derived from a “series of symbolic means including ranks, medals, formal qualifications [...]”.¹¹ One important aspect of this type of power is that it is transferrable from position to position.

According to these definitions, an air force leader achieves greater power occupying various significant positions. This is seen by someone being employed in a standards section of a squadron, whereby his position confers him the authority to conduct aircrew assessments and the ability to recommend aircrew continuous employment to the CO. Interestingly enough, in the Air Force, a person junior in rank from the person being evaluated could administer this assessment.¹² Personal power is evaluated in the day-to-day operations, and a leader gains more power by demonstrating increasing knowledge and by exercising excellent communication skills.

Finally, an air force leader achieves greater professional power by attaining various aircrew qualifications and by proudly wearing these qualifications on his flight suit. Significant qualifications include Instrument Check Pilot (ICP) badges and

¹⁰ Department of National Defence, *Leadership in the Canadian Forces: Conceptual Foundations*, 58.

¹¹ Dr. Allan Okros, “Leadership in the Canadian Military Context,” *Canadian Forces Leadership Institute* (Kingston: Canadian Defence Academy, 2010): 16.

¹² Dr. Allan English, “The Masks of Command: Leadership Differences in the Canadian Army, Navy and Air Force,” 4.

instructor qualification insignia. The wearing of those badges is an important cultural aspect of the air force, and thus, makes a significant contribution to a leader's professional power. This aspect has also some negative consequences, however. It has led to the creation of tribes, and stovepipes, which results in "operational specialities [having] tacit and unwritten prestige that promoted friction through in-group and out-group dynamics."¹³ The strong inter-rivalry existing between air force communities is an evidence of this phenomenon, often to the disadvantage of air force cohesion, as each community tries to have a bigger piece of the budget or expand their role to the detriment of others (also dubbed the phenomenon of "federated air force").¹⁴ Nonetheless, author Steve Micheal from the United States Air Force (USAF) puts it best when he writes that: "[...] Air Force leaders value both personal credibility, regardless of rank, and the contributions of specialized, competent subordinates."¹⁵ This leads to what many have labelled the "technical leadership" style employed by air force personnel.

Technical Leadership

Many experts have also analysed how the air force culture has influence its leadership approach. One such theory concerns what some experts have labelled "heroic leadership" versus "technical leadership." John Keegan first defined heroic leadership in his book *The Mask of Command*, as the conspicuous sharing of risk with subordinates,

¹³ Jeffrey J Smith, *Tomorrow's Air Force* (Bloomington: Indiana University Press, 2014), 189.

¹⁴ James L. Stephen, "The Air Force's Cold War Struggle with Its National Purpose," *Proceedings from the 3rd Annual Air Force Historical Conference, RMC Kingston 1997*, (Winnipeg: Office of the Air Force Heritage and History, 1998): 87-88.

¹⁵ Steve Micheal, "Air Force Doctrine and Leadership," *Aerospace Power Journal* 15, no. 2 (Summer 2001): 89.

and has been mainly associated with army and navy leadership approaches.¹⁶ Conversely, technical leadership has been construed as the ability to influence others to achieve a goal based on the specialized knowledge or skill its leader possesses. Leaders who must be able to demonstrate that they can do the same task as their subordinates and peers exercise this kind of leadership. This as long been linked with the leadership attributes found in pilots and Air Combat Systems Officers (ACSOs).¹⁷

Air forces also tend to rely heavily on technology for their operations, and therefore, its members are required to demonstrate mastery in their field of expertise. It is then no wonder that experts have acquiesced to the principle that air forces personnel focus on exercising this kind of leadership! There is an implicit faith that technology will assure their superiority, which as led Dr. Okros to describe the air force as “worshiping at the altar of technology.”¹⁸ This can be observed in the requirement of aircrew to undergo a comprehensive flight training syllabus. A typical pilot can spend approximately 30 months of cumulative training before receiving his/her wings, which is arguably one of the longest curriculums of any other officer qualification in the CAF.¹⁹

Albeit this kind of leadership can be found in all the other environmental commands, it is arguably more prevalent in the air force due to the fact that an airman's²⁰ technical knowledge is assessed on a regular basis throughout his/her career.²¹ Yearly multiple flight assessments and written examinations are conducted on a multitude of

¹⁶ Dr. Allan English, and Col (Ret) John Westrop, *Canadian Air Force Leadership and Command : The Human Dimension of Expeditionary Air Force Operations* (Trenton: Canadian Forces Aerospace Warfare Centre, 2007): 94.

¹⁷ *Ibid.*, 95.

¹⁸ Dr. Allan Okros, “Leadership in the Canadian Military Context,” 22.

¹⁹ RCAF Pilot Training webpage, *Canadian Armed Forces website*, accessed on 11 April 2015, <http://www.forces.ca/en/job/pilot-32>.

²⁰ In this essay, the term airman designate anyone who flies in an aircraft.

²¹ Dr. Allan English, and Col (Ret) John Westrop, *Canadian Air Force Leadership and Command : The Human Dimension of Expeditionary Air Force Operations*, 95.

subjects ranging from instrument flying rules, meteorology and tactical employment of the aircraft. An air force operator is thus required to continuously display technical knowledge expertise to exercise leadership legitimacy and credibility both in the cockpit but on the ground.

There are also other important air force cultural aspects contrasting it from the other environments and affecting how its leaders conduct their business. The modus operandi of the air forces is characterized by aspects such as: employment of lethal force, interdependency, teeth and tail, the generating of capacity, social cohesion and its approaches to the fog of war. This next section will analyse these cultural aspects in turn.

Air Forces Cultural Aspects

As Carl H. Builder alludes to in his renowned book: “*The Icarus Syndrome*”, due to constant technological innovations, the air force point of the spear²² is getting smaller and sharper, while the shaft of the spear is getting continuously larger.²³ Indeed, the air force is characterized by a significant centralization in the employment of its lethal force, due to its devastating effects and the significant political ramifications surrounding collateral damage. At the same time, the air force tends to achieve this kinetic effect by having fewer personnel in harm’s way to reduce the risks. This element of teeth and tail emanates from the demanding amount of specialized ground technicians and support personnel. It is not uncommon for the air forces to either fly from main bases thousand miles away from the Joint Operating Area (JOA) or to deploy the aircraft for only a

²² In his book, Carl H. Builder compares air power as a spear, the point of the spear is the strike system (bombs, missiles, air vehicles, etc...) and the shaft of the spear is all of the support systems (logistics, communications, command element, etc..).

²³ Carl Builder, *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*, (New Brunswick: Transactions Publishers, 1994), 263.

specific time, amounting in days or weeks. This allows them to centralize the main intensive support activities required to keep a state of the art aircraft flying.

Additionally, according to many experts, there exists an increased requirement in the air force for interdependencies.²⁴ Indeed, there is a greater reliance on cooperation between different units when targeting an objective from the air, from building a common operating picture to achieving kinetic effect. More often than not, there will be a multitude of air assets required to achieve this kill chain.

There are other characteristics regarding the generation of capacities that are specific to the air force. Aircrews rely on procedural skills and checklists to perform their task to a high standard, which has an impact on how they view leadership. This has been described by Dr. Okros as resulting in the “blinking light monitoring model of leadership,” where leaders relies on specific indications and past experience to lead their unit.²⁵ As a result, air force leaders tend to “attribute greater importance to technical skills” than interpersonal skills.²⁶

Ultimately, due to their reliance on technology, analysts assert that airmen are inclined to manage and absorb information in the same way as they are taught to behave in the cockpit. Due to the fact that information flow in the cockpit relies heavily on sensors and is highly structured, they operate on the assumption that a perfect operating picture exists.²⁷ Consequently, they will strive to put a higher emphasis on equipment, sensors and computers to collect and assess information to aid in their decision-making.

²⁴ Dr. Alan Okros, “Leadership in the Canadian Military Context,” 23-24.

²⁵ *Ibid.*, 27-28.

²⁶ William Lewis, “Leadership: The Air Dimension,” *Sic Itur Ad Astra Vol 1* (Trenton: Canadian Forces Aerospace Warfare Centre, 2009), 112.

²⁷ George R. Mastroianni, “Occupations, Cultures, and Leadership in the Army and Air Force,” *Parameters* 35, no. 4 (Winter 2006): 77-78.

Some experts have labelled this phenomenon as “optimizing system performance.”²⁸

Finally, there are other cultural elements that distinguish the air force leadership from the other environments.

As Allan English correctly points out, “aircrew rarely get the chance to lead until they reach the rank of major and become flight commanders.”²⁹ In a recent study on air force leadership, squadron commanders received lower score results on transformational and transactional leadership behaviours, imputed because they had few previous leadership experiences. As the author William Lewis stipulates: “they were more likely to use management by exception and laissez-faire behaviours with their subordinates.”³⁰

Moreover, as opposed to the other environments, when air force aircrew have the opportunity to lead, their formative leadership experience is conducted with peers and fellow officers, which considerably influences their leadership style.³¹ In those instances, a collaborative approach of leadership is often ascribed as most optimal in influencing others in accomplishing the mission.

More importantly, aircrew do not receive mentoring from senior NCO in the same manner as junior officers do in the army and the navy during their first command appointments.³² These differences result in significant difference in leadership style: senior air force officers tend to rely less on their senior NCO for advice. The end result is

²⁸ Dr. Allan Okros, “Leadership in the Canadian Military Context,” 27-28.

²⁹ Dr. Allan English, “The Masks of Command: Leadership Differences in the Canadian Army, Navy and Air Force.” 12.

³⁰ William Lewis, “Leadership: The Air Dimension,” *Sic Itur Ad Astra Vol 1* (Trenton: Canadian Forces Aerospace Warfare Centre, 2009), 113.

³¹ Dr. Allan English, and Col (Ret) John Westrop, *Canadian Air Force Leadership and Command : The Human Dimension of Expeditionary Air Force Operations*, 103.

³² Dr. Allan English, “The Masks of Command: Leadership Differences in the Canadian Army, Navy and Air Force,” 12.

that they will most likely apply a different approach to leadership in joint command situations.

On the other hand, just as Dr. Allan English has specified in his opening remarks in his book entitled “*The Mask of Command*,” it is understood that “personalities have a greater impact on leadership style than service background.”³³ It would be a grave mistake to stereotype all air force personnel in the same leadership mould. However, as seen in the previous paragraphs, there is strong evidence of power authorities, leadership aspects and cultural disparities between each environment that must be understood and taken into account when analyzing air force leadership and culture.

In sum, the air force demonstrates several significant elements that differentiate it from the other environments, which inevitably influence the kind of leadership they exercise. Aircrew asserts their leadership authority through positional, personal and professional powers that are unique from the other environments. Air force aircrew also displays a reliance on technology that invariably influences their modus operandi. Experts have labelled this as employing “technical leadership,” where knowledge and expertise are paramount for exercising legitimacy and credibility as a leader. Cultural elements unique to the air force strongly affect the manner in which leadership is applied, dubbed by some as the “blinking light monitoring model of leadership”. As a result, it can be said that the air force requires an exclusive leadership style to optimize the performance of its members. The next section will explore the unique future security environment that distinguishes the air force leadership from the other elements.

³³ *Ibid.* 2.

TODAY'S AIR FORCE SECURITY ENVIRONMENT

As the Air Force is compelled in the near future to reduce its force structure under the pressure of budget reductions, there will be a strong tendency to preserve those forces which have dominated the mission spectrum in the past rather than those which might dominate in the future.

Carl H. Builder³⁴

Although this quote, from a prominent American author on air power theory, was first published more than 20 years ago, it still succinctly illustrates some of the current challenges facing future senior leaders. An examination of these trends will undoubtedly lead to a better contextual understanding of the specific pressures exercised on air force personnel and their effects on their leaders. This section will discuss how rapid technological changes, data overload and the volatile, uncertain, complex and ambiguous (VUCA) environment shape today's air force leadership style.

Born out of technological innovations during the First World War, the air force relies on this vital characteristic to ascertain its superiority and its freedom of action in the air, space and cyberspace.³⁵ Nowadays, recent breakthroughs in nanotechnology, autonomous flight and directed energy have resulted in an exponential change in the nature of air warfare.³⁶ A recent study sponsored by the United States Air Force (USAF) concluded that technological innovations are “changing at an accelerating pace, thus increasing the range and depth of challenges for which leaders must be prepared.”³⁷ Air force leaders must constantly keep pace with emerging new technology and remain intellectually agile to harvest the benefits of recent innovations.

³⁴ Carl Builder, *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*, (New Brunswick: Transactions Publishers, 1994), 256.

³⁵ Marc V. Schanz, “Speed Kills,” *Air Force Magazine* 97, no. 10 (October 2014): 39.

³⁶ *Ibid.*

³⁷ Karen Currie, “Air Force Leadership Study, The Need for Deliberate Development,” 3.

Moreover, the development of Unmanned Aerial Vehicles (UAVs), space-based assets, ISR systems are challenging the dominant fighter-operations perspective by advancing the concept of airpower by alternative means.³⁸ This will unavoidably bring about a paradigm shift in the conduct of future warfare, as technology advancements will erode the fighter pilot central contribution for achieving air superiority. For instance, researchers are estimating that “[...] global spending on drones is likely to surpass US\$94 billion by 2021”.³⁹ Technology will soon allow UAVs to conduct unrestricted air-to-air warfare and these operations will revolutionize the requirement of pilot centrality in senior leadership positions.

Technology innovations have also contributed to air force assets collecting large quantities of data, and this trend will continue to expand with the introduction of the fifth generation aircraft such as the F35. The ability to transfer information in near-real time has led to an increased blurring in the traditional division between the tactical, operational, and strategic environments.⁴⁰ Behavioural scientist such as Dr. Douglas Lindsay, views this as a task migration from senior to junior leaders, and as a result: “there is increasing likelihood that no single leader will have all the answers or even be able to make sense of the more challenging situations.”⁴¹ Consequently, there is an expectation that air force officers “will require skills sets that include the ability to effectively lead units, solve problems, be more adaptive, and be more autonomous in decision making”.⁴² As Marc Schanz observes in his article for the American Air Force

³⁸ Jeffrey J Smith, *Tommorow's Air Force*, 189.

³⁹ Michel J. Boyle. “The costs and consequences of drone warfare,” *International Affairs* 89, no. 1 (January 2013): 22.

⁴⁰ Karen Currie, “Air Force Leadership Study, The Need for Deliberate Development,” 3.

⁴¹ Douglas R. Lindsay, David V. Day, and Stanley M. Halpin. “Shared Leadership in the Military: Reality, Possibility, or Pipedream?” *Military Psychology* 23, no. 9 (2011): 529.

⁴² Karen Currie, “Air Force Leadership Study, The Need for Deliberate Development,” 3.

Association, this will also lead to an increased dependency on automation because “there will never be enough manpower to do all the things an information-saturated force will have to do.”⁴³

Another exclusive aspect influencing the leadership of the air force is the present global security. As identified in the RCAF commander’s strategic guidance document “Air Force Vectors,” the world is extremely unpredictable and there is no consensus among international security experts in predicting its future.⁴⁴ The term VUCA is described in a USAF leadership publication that surmised that:

For future Air Force leaders to succeed, they must develop a personal strategic decision making process that is adept at incorporating rapid, unpredictable change (volatility), unknown circumstances (uncertainty), intricately interwoven decision factors (complexity), and vagueness about the current situation and potential outcomes (ambiguity).⁴⁵

Some would argue that those challenges are not unique for the air force, and that they are also affecting all other elements equally. Although it is true that they have a tremendous impact on all other commands, it can also be said that they are affecting each of them in a different manner. As such, the constant volatility of the world has translated into a new phenomenon for the air force: the loaning of western air superiority to support the land forces of other countries.⁴⁶ The NATO operations in Libya and the current fight against ISIL are examples during which western air forces are supporting the ground forces of a combatant requiring this unique capability. This seems to indicate a growing

⁴³ John A. Tirpak, “Over the Horizons,” *Air Force Magazine* 94, no. 1 (January 2011): 36.

⁴⁴ Department of National Defence, A-GA-007-00/AF-008, *Air Force Vectors* (Ottawa: DND Canada, 2014), 10.

⁴⁵ Karen Currie, “Air Force Leadership Study, The Need for Deliberate Development,” 4.

⁴⁶ Christian F. Anrig, “Allied Air Power over Lybia”, in *Air Power in UN Operations: Wings for Peace*, ed. By A. Walter Dorn (Farnham: Ashgate Publishing Limited, 2014), 280.

international consensus on the use of coalition air power against failed states, but it could also be a way of simplifying decision-making.

There will continue to be increased uncertainty due notably to the massive proliferation of advanced technologies now accessible by current and potential enemies. The ability of manufacturing and using UAVs is just but one technology now affordable to adversaries. This technology gap will continue to ebb as the continued decrease of military budgets weaken current western air power superiority. The world will be viewed as a complex web of declining great powers, rogue regimes and non-state actors; as evident by the vulnerability of states against cyber warfare attacks such as the one purported against the Sony Corporation in 2014.⁴⁷ The air forces are particularly vulnerable to these cyber threats due to their dependency on technology to ascertain their freedom of movement.⁴⁸ Finally, there is much ambiguity about the world's future: a multitude of violent groups are in operations, and no one can predict if and how the air force will be employed to counter those threats.⁴⁹

In retrospect, air forces will be challenged by the continuous introduction of new technologies, necessitating its own leadership approach because it will oblige its leaders to constantly adapt old processes in search for unique solutions, and thus rejecting the status quo. Fighter pilot centric contribution to air superiority will be seriously disputed in a world characterized by increased VUCA. Given the challenge particularities facing today's air force personnel, it seems only logical that a specific air force leadership

⁴⁷ John McCain. "America must fix its cyber-vulnerability," *CNN*, last modified 20 December 2014. mailto:http://www.cnn.com/2014/12/20/opinion/mccain-cyber-attacks/index.html%23top_of_page.

⁴⁸ Department of National Defence, D2-247/2009E-PDF, *Projecting Power: Canada's Air Force 2035* (Trenton: Canadian Forces Aerospace Warfare Centre, 2009), 64.

⁴⁹ *Ibid*, 8.

approach be exercised, as compared to the other environments. The next section will evaluate what it means for a commanding officer of a flying squadron.

SQUADRON CO LEADERSHIP

*Our commanders must exert superior leadership; they are expected to know and influence their soldiers. Exert your leadership – see that your soldiers “think straight”. You won’t have all the answers, but you can at least tell your soldiers that.*⁵⁰

General H.H. “Hap” Arnold
from the Army Air Force
19 September 1945

On 25 March 2013, Lieutenant-General Yves Blondin (RCAF Commander), declared in his opening remarks to the Standing Senate Committee on National Security and Defence (SCONSAD) that the RCAF must do its part “to balance the books.”⁵¹ This has resulted in reducing the allotted Yearly Flying Rate (YFR) while increasing the demands on simulation to adequately train aircrews. Given the intense pressures on costs across the RCAF and the administrative workload of a flying squadron’s CO, what possible justification could there be for training him or her on the Squadron’s aircraft type? This section will illustrate that having qualified squadron commanders builds credibility and trust in their leadership, while protecting the legitimacy of the institution.

As discussed previously, it would appear that air force leaders tend to focus on technical leadership to exercise greater position, personal and professional powers. An air force leader will require exerting complete knowledge of his field to adapt old processes to yield the maximum benefits of new technological advances. This will require creativity

⁵⁰ Quote attributed to General H.H. “Hap” Arnold, quoted in United States Air Force, *Air Force Doctrine Document 1-1: Leadership and Force Development* (Washington, DC: U.S. Government Printing Office, 2011), 5.

⁵¹ Senate of Canada, Standing Committee on National Security and Defence, *Minutes of Proceedings and Evidence*, Monday, March 25, 2013, <http://www.parl.gc.ca/content/sen/committee/411%5CSECD/50054-e.HTM>.

and an inevitable reliance on automation for making sense of the large quantity of data. With the blurring of lines between tactical, operational and strategic, demonstrating sound understanding will ensure that subordinates have the correct level of experience and control to complete the required task. As the author Steve Micheal states, the air force:

[...] centralized control and decentralized execution speak expressly to leadership issues that are becoming increasingly complex due to technological advancements that bring detailed information about the battlefield into the lap of everyone involved, from the pilot in the cockpit to the four-star general at headquarters.⁵²

As one acquires higher rank and increased responsibilities, there is a different balance between technical and heroic leadership, especially for air force squadron commanders.⁵³ History has shown many instances where heroic leadership was necessary to inspire confidence in aircrew. In fact, some of the best squadron COs during both World Wars were accomplished airmen who led by example, and used their expertise to minimize the risks and improve the welfare of their subordinates. As reported by Dr. Richard Goette, N.E. “Molly” Small stands as an example of an aircrew using technical leadership (to find weight saving measure to increase the operational range of the Canso aircraft to reach U-Boat in the central Atlantic) and “heroic leadership” (he died during its flight testing). The greatest difference between army and air force leadership occurs at the lower level, where technical leadership is of crucial importance for an airman.⁵⁴

A counter-argument to the notion that squadron commanders should be qualified can also be traced back through a historical lens, dating back from the First World War.

⁵² Steve Micheal, “Air Force Doctrine and Leadership,” 86-87.

⁵³ Dr. Richard Goette, “Squadron Leader N.E. Small: a Study of Leadership in the RCAF’s Eastern Air Command, 1942”, *Canadian Military Journal* 5, no 1 (Spring 2004) 49.

⁵⁴ Dr. Allan English, and Col (Ret) John Westrop, *Canadian Air Force Leadership and Command : The Human Dimension of Expeditionary Air Force Operations*, 102.

Earlier air force squadron commanding officers of the Royal Flying Corps (RFC) were often not qualified airman, but rather, they were chosen because they showed skill in the handling of men. Their contributions to the field of aviation were nonetheless impressive (Trenchard is a perfect example) and the rationale behind this decision is summarized in a RFC report after the war:

A man with a talent for command, who can teach and maintain discipline, encourage his subordinates, and organize the work to be done, will have a good squadron, and is free from those insidious temptations which so easily beset commanding officers who have earned distinction as pilots.⁵⁵

On the other hand, not only is this notion dating from the birth of the air force where airman were hard to come by, but this concept would also be contrary to current practices articulated in earlier paragraphs. As such, the “blinking light monitoring” model of air force leadership implies the concept that a leader should be where the action is to understand the challenges of his subordinates. This is somewhat akin to the heroic leadership model of the army and navy, where an officer is exhibiting leadership legitimacy by sharing the risks with his subordinates. Moreover, a recent study on the theory of shared leadership in the armed forces concluded that successful leaders were the ones who were able to build well-functioning teams through a process of collaboration and open communication. Specifically, this notion is corroborated by the fact that: “captains of high performing aircraft crews take the time to engage members of the crew and model a participative cockpit culture.”⁵⁶ The use of collaboration and open

⁵⁵ Walter Raleigh, *War in the Air* (Oxford: Clarendon, 1922), 438, quoted in Dr. Allan English, “Leadership and Command in the Air Force: Can Non-Aircrew Command Flying Squadron?” *Proceedings: 6th Annual Air Force Historical Conference* (Winnipeg: Office of Air Force Heritage and History, 2000): 82.

⁵⁶ Douglas R. Lindsay, David V. Day, and Stanley M. Halpin. “Shared Leadership in the Military: Reality, Possibility, or Pipedream?” 544.

communication is consistent with three factors deemed important to enhance shared leadership: “low power distance, high psychological safety, and a strong learning orientation.”⁵⁷ It can be argued that those three aspects are inherent leadership factors of the air force and in order to achieve these, a squadron commander must be inevitably be present in a cockpit.

Moreover, USAF leadership doctrine provides important insights that can inform RCAF leadership issues. The AFDD 1-1 (USAF Leadership and Force Development doctrine manual) describes strategic-level leaders as highly technically competent while demonstrating broad leadership skills. In essence, to display adequate leadership credibility and earn the trust of their subordinates, a commander must maintain technical proficiency, the ability to employ technology and innovation to create war-fighting effects.⁵⁸ Beyond operational requirements, these skills will enable squadron commanders to prove their worth and establish their credibility with their subordinates. This is most important for air force members, since professional power is associated with increased credibility. Additionally, position power would be stronger if that person leads by example by showing his/her prowess in the cockpit. There are also many authors that contend that to become a competent operational commander, one must be a competent tactical commander: “to be an effective joint war fighter, an Air Force leader must be an effective airman.”⁵⁹ As (then) Brigadier-General Chris Coates asserts in his article on airmindedness,

⁵⁷ *Ibid.*

⁵⁸ Steve Micheal, “Air Force Doctrine and Leadership,” 89.

⁵⁹ *Ibid.*, 88.

Canada needs to appropriately prepare members of the RCAF and others to apply air power to achieve the desired strategic effects, and that can only happen with a fundamental understanding and appreciation of its use.⁶⁰

All of those arguments points to the fact that squadron commander shall be qualified on type to exercise sound heroic and technical leadership abilities. However, there are others that would argue that qualifying a commanding officer to fly takes a huge amount of resources away from other aircrews that desperately need it for their training. There is one particular aspect that inevitably reinforces the view that aircrew leaders should exhibit above average flying skills and trump this idea of a non-flying CO.

There is an innate responsibilities vested in squadron CO with regards to flight safety and effective accomplishment of the mission. COs are ultimately responsible to award aircrew qualification based on the recommendations made by a standards officer. Arguably, this most important responsibility necessitate that person to have a complete understanding of the air environment, which can only be accomplish by experience and by intimately knowing one's subordinates. One would only expect a currently qualified pilot or an ACSO to be able to gain the trust of their subordinates to safely achieve this task.

In sum, junior airmen leaders need to master the technological aspects of their field of expertise to display technical leadership. As one attains higher rank, the requirement of exhibiting heroic leadership through the sharing of risks reveals to be of prime importance for a squadron commander. This will undoubtedly allow that person to demonstrate credibility and gain the trust of their subordinates. This is significantly important when one is vested with the ultimate responsibility of flight safety for the

⁶⁰ BGen Christopher J. Coates, "Airmindedness: An Essential Element of Air Power." *The Royal Canadian Air Force Journal* 3, no 1 (Winter 2014): 70.

effective accomplishment of the mission. Although one can see the differences in cultural leadership styles between CAF environments and their importance, the RCAF still does not possess its own doctrinal leadership manual. The final part of this essay will endeavour to illustrate some of the elements that should be included in this doctrine to improve the training of its officer corps.

DEVELOPMENT OF AIR FORCE DOCTRINE

*I'm firmly convinced that leaders are not born, they're educated, trained, and made, as in every other profession. To ensure a strong, and ready Air Force, we must always remain dedicated to this process.*⁶¹

General Curtis E. Lemay
CSAF, 1961-1965

A void exists in the current education and training process for discussing what is unique about air force leadership. Nevertheless, the military has a distinct advantage when it comes to the development of leaders with its focus on education, training and experience.⁶² As described in a recent study for the USAF, “leadership skills of any Air Force member can be improved through training, education and experience,” and therefore, it would behove the RCAF to publish a doctrinal manual encompassing the cultural differences influencing the leadership of its members.

Relying heavily on technology, the air force is highly transformational, and its leaders must embrace changes and remain agile to adapt quickly. Leadership doctrine plays a key role in ensuring leaders are prepared to do just that. As such, an USAF officer recently wrote that:

⁶¹ Quote attributed to General Curtis E. Lemay, USAF Chief of Staff, 1961-1965, quoted in Christopher T. Daniels, “Leading from the Front, Rear, and Center,” *Air & Space Journal* 21, no. 2 (Summer 2007): 41.

⁶² Karen Currie, “Air Force Leadership Study, The Need for Deliberate Development,” 11.

contemporary doctrine should be much more than a formal statement of traits, principles, and styles; it must reflect the dynamic nature of air and space power while recognizing, celebrating, and encouraging the unique characteristics of airmen.⁶³

Air force doctrine should provide an intellectual foundation for cultivating an airman's mindset and should adequately prepare its member for generating new ideas and fostering changes.⁶⁴

One solution would be to introduce the concept of shared leadership, which is defined as "a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both."⁶⁵ Shared leadership would enhance and focus on the building of well-functioning teams through a process of collaboration and open communication. However, there are barriers to the implementation of this form of leadership, such as the individualistic focus of military training of leadership, which can be viewed as "a weakness or inability to lead the group from the front."⁶⁶ One way to address this would be by the formulation of a comprehensive air force doctrine based on the core values and cultural aspects of the air force.

Some would argue that the enduring aspects of leadership have not changed. Although the technology of warfare has evolved significantly, the foundation of human leadership has remained constant. Basic leadership entails promulgating a vision and a shared sense of purpose to build trust and teamwork.⁶⁷ On the other hand, basic

⁶³ Shannon A. Brown, "The Sources of Leadership Doctrine in the Air Force," *Air and Space Power Journal* 16, no. 4 (Winter 2002): 44.

⁶⁴ Karen Currie, "Air Force Leadership Study, The Need for Deliberate Development," 7.

⁶⁵ Douglas R. Lindsay, David V. Day, and Stanley M. Halpin. "Shared Leadership in the Military: Reality, Possibility, or Pipedream?" 529.

⁶⁶ *Ibid.*, 545.

⁶⁷ James T. Hooper, "Creating Strong Leaders and Strong Units," *Air & Space Power Journal* 14, no. 4 (Winter 2002): 19.

leadership theories do not take into account some of the air force core values described earlier. According to the *Canadian Forces Aerospace Doctrine* manual, doctrine plays a significant function in the leadership development of military personnel, as it can “provide commanders guidance and permits individuals to think and act more clearly while engaged in a conflict.”⁶⁸ Therefore, it would make sense that a RCAF leadership doctrine articulates how best to lead in an aerospace setting, given its culture and unique demands of its security environment. As Steve Micheal articulates, “in addition to core values, the nature and culture of aerospace-power war fighting require airmen to demonstrate unique leadership attributes.”⁶⁹

There is obviously no “cookbook” solution for leadership, but it would be sensible for the RCAF to promote a leadership style adapted to its external environment and its particular cultural aspects to better prepare its leaders. Concepts to mentor airman in adapting to constant technological changes and to adopt premises of shared leadership ought to be included in this doctrine to develop better air force leaders.

CONCLUSION

The aim of this essay was to discuss the unique aspects of the RCAF leadership which differentiate it from its sister environments. Particularly, through the use of theories such as power authority model and the “heroic” versus “technical” leadership approach, this paper has examined how the cultural elements of RCAF leadership and its future security environment affect its modus operandi. It has also investigated whether a

⁶⁸ Department of National Defence, B-GA-400-000/FP-000, *Canadian Forces Aerospace Doctrine*, (Ottawa: Chief of the Air Staff, December 2010), 1.

⁶⁹ Steve Micheal, “Air Force Doctrine and Leadership,” 88.

CO should be qualified to fly and offered new perspectives on how to improve the leadership training of its officer corps.

There are significant leadership elements in the RCAF that are inherently different from the other environmental elements. Aspects of lethal force, interdependency, teeth and tail, the generating of capacity, social cohesion and its approaches to the fog of war makes air force leadership unique. Due to its heavy reliance on technology, some experts have even labelled the air force leadership as “worshiping at the altar of technology”.

It has been demonstrated that aircrews tend to exhibit distinctive positional, personal and professional powers, which invariably affect the approach they take about leadership. Moreover, successful air force junior leaders will display strong technical leadership, but as one moves up the ranks, a senior leader will also have to demonstrate heroic leadership to gain the trust and the necessary credibility to lead a squadron. As discussed above, this can only be achieved by the CO gaining its aircrew qualification. Furthermore, this will enable a CO to make difficult decision regarding the dilemma surrounding flight safety and mission accomplishment.

Squadron COs will be challenged by constant technological innovations in the field of aviation and a world characterized by increased VUCA which will erode the fighter pilot centrality to air power. It thus seems only logical that a particular leadership style be favoured. It has been proposed that an innovative RCAF doctrine be formulated to discuss the unique cultural aspects of its leadership and to present new theories such as shared leadership. Although there is no “cookbook” in generating new leaders, the air

force is in a unique position to influence and guide the training of its members and a leadership doctrine would undoubtedly help to foster discussions on the subject.

This essay contends that we have not taken the time to reflect and write down what defines the air force; it requires more definition of what it means to lead in our unique environment. With the budgetary and resources constraints imposed on the RCAF, if it is to accomplish its mission over the next generation, it is imperative that it focuses its attention on developing its most critical asset: its leadership.

BIBLIOGRAPHY

Anrig, Christian F. "Allied Air Power over Libya". *Air Power in UN Operations: Wings for Peace*. Edited by A. Walter Dorn. Farnham: Ashgate Publishing Limited, 2014, 255-282.

Currie, Karen. "Air Force Leadership Study, The Need for Deliberate Development." *Air Force Research Institute Papers*, Maxwell Air Force Base: Air University Press, 2012.

Boyle, Michel J. "The costs and consequences of drone warfare." *International Affairs* 89, no. 1 (January 2013): 1-29.

Brown, Shannon A. "The Sources of Leadership Doctrine in the Air Force." *Air and Space Power Journal* 16, no. 4 (Winter 2002): 37-44.

Browne, Colonel James S. "Air Force Leadership Development: Transformation's Constant." Maxwell AFB: Department of State Senior Seminar, 2003.

Builder, Carl H. *The Icarus Syndrome, The Role of Air Power Theory in the Evolution of Fate of the U.S. Air Force*. New-Brunswick : Transaction Publishers, 1994.

Canada. Department of National Defence. A-PA-005-000/AP-004, *Leadership in the Canadian Forces : Conceptual Foundations*. Ottawa : DND Canada, 2005.

Canada. Department of National Defence. A-GA-007-000/AF-008, *Air Forces Vectors*. Ottawa : DND Canada, 2014.

Canada. Department of National Defence. A-PA-005-000/AP-001, *Duty with Honour*. Kingston: Canadian Defence Academy, 2009.

Canada. Department of National Defence. B-GA-400-000/FP-000, *Canadian Forces Aerospace Doctrine*. Ottawa: Chief of the Air Staff, December 2010.

Canada. Department of National Defence. D2-247/2009E-PDF, *Projecting Power: Canada's Air Force 2035*. Trenton: Canadian Forces Aerospace Warfare Centre, 2009.

Canada. Department of National Defence. D2-290/2011, *Project Laminar Strike Canada's Air Force: Post Op ATHENA*. Trenton: Canadian Forces Aerospace Warfare Centre, 2011.

Canada. Senate of Canada. Standing Committee on National Security and Defence. *Minutes of Proceedings and Evidence*, Monday, March 25, 2013, <http://www.parl.gc.ca/content/sen/committee/411%5CSECD/50054-e.HTM>.

RCAF Pilot Training webpage. *Canadian Armed Forces website*. Accessed on 11 April 2015, <http://www.forces.ca/en/job/pilot-32>.

Chaloux, Lieutenant-Colonel Lynne. "RCAF Succession Management: A Strategic Perspective." Master of Defence Studies Research Paper, Canadian Forces College, 2014.

Coates, BGen Christopher J. "Airmindedness: An Essential Element of Air Power." *The Royal Canadian Air Force Journal* 3, no. 1 (Winter 2014): 70-84.

Correll, John T. "Developing Aerospace Leaders." *Air Force Magazine* 84, no. 12 (December 2001): 62-71.

Daniels, Christopher T. "Leading from the Front, Rear, and Center." *Air & Space Journal* 21, no. 2 (Summer 2007): 37-41.

Davis, Karen. *Cultural Intelligence & Leadership*. Winnipeg: Defence Academy Press, 2009.

English, Dr. Allan. "Leadership and Command in the Air Force: Can Non-Aircrew Command Flying Squadron?" *Proceedings: 6th Annual Air Force Historical Conference*. Winnipeg: Office of Air Force Heritage and History, 2000, 79-86.

English, Dr. Allan. "The Masks of Command: Leadership Differences in the Canadian Army, Navy and Air Force." *Inter-University Seminar on Armed Forces and Society Conference*. Kingston: Canadian Forces Leadership Institute, 2002.

English, Dr. Allan and Col (Ret) John Westrop. *Canadian Air Force Leadership and Command : The Human Dimension of Expeditionary Air Force Operations*. Trenton: Canadian Forces Aerospace Warfare Centre, 2007.

Erlandson, LtCol (Ret) Douglas L., Dr. Allan English. *Air Force Command and Control Air Symposium*. Toronto: Canadian Forces College, 2002.

Goette, Dr. Richard. "Squadron Leader N.E. Small: a Study of Leadership in the RCAF's Eastern Air Command, 1942", *Canadian Military Journal* 5, no. 1 (Spring 2004): 43-50.

Grant, Rebecca. "Why Airmen Don't Command", *Air Force Magazine* 91, no. 3 (March 2008): 46-49.

Hinchcliffe, Mark. *Strategic Air Forces: Choosing a Framework for the Future Air Force*. Tuggeranong: The Air Power Development Centre, 2008.

Hooper, James T. "Creating Strong Leaders and Strong Units." *Air & Space Power Journal* 14, no. 4 (Winter 2002): 17-24.

Hukill, J., A. Kristal, S. Johnson, and J. Conway. *The Next-Generation Expeditionary Air Force*. Maxwell Air Force Base: Air Force Research Institute, 2012.

Jacobson, Daniel G. Jr. "Why Commanders Lead: a Study in Leadership Motivations of Air Force Officers." Doctor of Philosophy thesis, Capella University, 2009.

Lewis, William. "Leadership: The Air Dimension," *Sic Itur Ad Astra Vol 1*. Trenton: Canadian Forces Aerospace Warfare Centre, 2009, 111-117.

Lindsay, Douglas R., David V. Day, and Stanley M. Halpin. "Shared Leadership in the Military: Reality, Possibility, or Pipedream?" *Military Psychology* 23, no. 9 (2011): 528-549.

McCain, John. "America must fix its cyber-vulnerability." *CNN*, last modified 20 December 2014. http://www.cnn.com/2014/12/20/opinion/mccain-cyber-attacks/index.html%23top_of_page.

Mastroianni, George R. "Occupations, Cultures, and Leadership in the Army and Air Force". *Parameters* 35, no. 4 (Winter 2006): 76-90.

Micheal, Steve, "Air Force Doctrine and Leadership." *Aerospace Power Journal* 15, no. 2 (Summer 2001): 86-89.

Okros, Dr. Alan. "Leadership in the Canadian Military Context." *Canadian Forces Leadership Institute*. Kingston: Canadian Defence Academy, 2010.

Robertson, Scot. "The Development of Royal Air Force Strategic Bombing Doctrine Between the Wars." *Airpower Journal* 12, no. 1 (Spring 1998): p. 37-53.

Schanz, Marc V. "Speed Kills." *Air Force Magazine* 97, no. 10 (October 2014): 36-41.

Smith, James M. "Expeditionary leaders, CINCs, and Chairmen: Shaping Air Force officers for leadership roles in the twenty-first century." *Aerospace Power Journal* 14, no. 4 (Winter 2000): 30-44.

Smith, Jeffrey J. *Tommorow's Air Force*. Bloomington: Indiana University Press, 2014.

Stephen, James L. "The Air Force's Cold War Struggle with Its National Purpose." *Proceedings from the 3rd Annual Air Force Historical Conference, RMC Kingston 1997*. Winnipeg: Office of the Air Force Heritage and History, 1 Canadian Air Division, 1998, 79-88, 117-118.

Thirtle, Mike. "Toward Defining Air Force Leadership", *Air & Space Journal* 16, no. 4 (Winter 2002): 9-16.

Tirpak, John A. "Over the Horizons." *Air Force Magazine* 94, no. 1 (January 2011): 34-38.

Tirpak, John A. "Airmen Absent". *Air Force Magazine* 96, no. 4 (April 2013): 34-36.

United-Kingdom. Royal Air Force. *Air Force Mentoring Handbook*. London: U.K. Government Printing Office, 2014.

United States. United States Air Force. *Air Force Doctrine Document 1-1: Leadership and Force Development*. Washington, DC: U.S. Government Printing Office, 2011.