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STOP THE BLEEDING: PILOT RETENTION IN THE RCAF

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AIM

1. The aim of this service paper is to provide recommendations that address the unique pilot retention challenges faced by the Royal Canadian Air Force (RCAF).

INTRODUCTION

2. There is no doubt that the Canadian Armed Forces (CAF) has failed in its ability to effectively manage its human resources (HR). The 2016 Auditor General (AG) Report was especially scathing when it called out the CAF for the “ongoing, systemic recruiting challenges for the Regular Force in its efforts to counter higher rates of attrition and fill certain chronically understaffed occupations.”¹

3. The AG Report stated that the RCAF was particularly affected and its needs were not being met by recruiting targets, let alone recruiting outcomes. The consequence of these outcomes is such that the RCAF is facing a critical pilot shortage that will make it impossible to meet its operational requirements.² Comd RCAF, LGen Meinzinger concurs with this assessment: “Without action to stabilize our levels of experienced personnel, the RCAF's operational output will be further impacted. Increasing our intake and our training capacity is not enough.”³

4. This service paper will proceed by further defining the problem space at the micro and macro levels of the RCAF and global aviation industry, respectively. This will be followed by exploring the opportunity space through benchmarking allied air forces who are managing similar retention issues. The paper will conclude in the solution space with recommendations to implement a retention bonus and to create a dual-track system for pilot careers in the RCAF.

DISCUSSION

RCAF Pilot Shortage

5. There is currently a shortage of 275 Pilots, or approximately 17 percent of the preferred manning level (PML).⁴ This has been an enduring problem for the RCAF. Former Comd RCAF, LGen Watts told a Senate defence committee in 2008 that the pilot

¹ Office of the Auditor General of Canada, “Report 5 – Canadian Armed Forces Recruitment and Retention-National Defence,” in *2016 Fall Reports of the Auditor General of Canada*.

² *ibid.*

³ Lee Berthiaume, “Air force commander eyes bonuses to address shortage of experienced pilots,” *National Post*, 10 June 2019.

⁴ *ibid.*

trade was 13 percent below manning requirements, and that this deficit had been “a long-term persistent problem” for over a decade.”⁵

6. The conclusion of the AG Report was for the CAF to “tailor and implement different approaches for each occupation to address each occupation’s challenges.”⁶ With over 20 years of critical pilot shortages, and at a time when Strong Secure Engaged (SSE) calls for growth, it is time to take decisive, aggressive action to specifically address the unique situation facing the pilot trade in the RCAF.⁷

7. Pilots are the most expensive occupation to train in the CAF. In 2014, it cost approximately \$2.6 million for an RCAF pilot to become wings qualified.⁸ Further training costs vary depending on the aircraft. For perspective, the most expensive is for a fighter pilot to achieve ‘combat ready status’ which costs approximately \$7 million and can take up to seven years.⁹ These time and financial costs do not factor in years of further upgrades, experience and professional development that are lost when a pilot leaves the RCAF.

Global Pilot Shortage

8. International air travel is forecast to double in the next 20 years and Baby Boomers – who comprise 50% of commercial pilots today – are approaching retirement age.¹⁰ LGen Meininger, Comd RCAF has acknowledged that the aerospace sector in Canada has a shortfall of 7,000 to 8,000 pilots and that “we don’t have the capacity as a nation to produce even half of that.”¹¹ A RAND report likens airline hiring to an escape valve: “as the number of hires or the salary of commercial airline pilots increases, the escape valve widens, inducing more pilots to leave [the military].”¹²

9. Military pilot retention issues have been shown to be correlated with increased hiring by commercial airlines. Military analyst, David Axe summarizes a commonly held assumption among military and political leadership regarding the issue:

Leaders haven’t publicly admitted that the most important thing the Air Force could do might be to simply hang on and wait for the economy to slow and

⁵ David Pugliese, “Air force short 250 pilots but getting a handle on retention,” *Ottawa Citizen*, 13 June 2008

⁶ Office of the Auditor General of Canada, “Report 5 – Canadian Armed Forces Recruitment and Retention-National Defence,” in *2016 Fall Reports of the Auditor General of Canada*.

⁷ Department of National Defence. *Strong Secure Engaged, Canada’s Defence Policy*. Ottawa: Minister of National Defence, 2017.

⁸ Bruce Champion-Smith, “Air force hiring foreign pilots to fly front-line jets” *The Toronto Star*, 23 June 2014

⁹ I.P. Decarlo, “Next Generation Pilots: Human Resource Management Challenges for the RCAF.” (Joint Command and Staff Program Service Paper, Canadian Forces College, 2016), 4.

¹⁰ Marisa Garcia, “A ‘Perfect Storm’ Pilot Shortage Threatens Global Aviation,” *Forbes*, 27 July 2018.

¹¹ Lee Berthiaume, “Canada’s air force is losing too many experienced pilots - and the clock is ticking,” *The Canadian Press*, 10 Feb 2019.

¹² Nolan Sweeny, “Predicting Active Duty Air Force Pilot Attrition Given an Anticipated Increase in Major Airline Pilot Hiring.” RAND Corporation, (2015)

airlines to cut back on hiring. That, more than any other factor, helped alleviate past pilot shortages. As market conditions worsened and the airlines cut back, the Air Force's own retention woes eased.¹³

While this might have been possible in the past, the current global aviation industry is rapidly expanding and requiring a tremendous number of new pilots as shown in Figure 1.



Figure 1 – Future Pilot Demand by Region
Source: Boeing Company. *Pilot Outlook: 2018-2037*

10. The RCAF will face increased manning pressures as its pilots are attracted by higher industry salaries. This is an enduring systemic issue. If pilots are being lured away for financial reasons, then a financial incentive should be used to help reduce turnover.

United States Air Force (USAF)

11. The USAF currently has just 18,000 of the approximately 20,000 pilots it needs to fly its 5,500 aircraft.¹⁴ While this 10% gap is significantly better than the approximately 17% shortage facing the RCAF, former USAF Secretary, Heather Wilson has warned that this pilot deficiency could “break the force.”¹⁵ The main reasons cited for the pilot shortage are “inadequate pay and benefits, and the associated temptation for military pilots to take better-paying airline jobs.”¹⁶

¹³ David Axe, “What’s Driving the U.S. Air Force Pilot Shortage?” *Foreign Policy*, 4 May 2018

¹⁴ David Axe, “What’s Driving the U.S. Air Force Pilot Shortage?” *Foreign Policy*, 4 May 2018.

¹⁵ *ibid.*

¹⁶ *ibid.*

12. There have been at least six times since the founding of the USAF in 1947 when it has suffered serious pilot shortages.¹⁷ These shortfalls have coincided with strong economic times and aggressive hiring practices of commercial airlines and is shown in Figure 2. To offset this, the previously mentioned RAND report recommends a continuation pay bonus (i.e. retention bonus) and an indexed pay scale to inflation.¹⁸

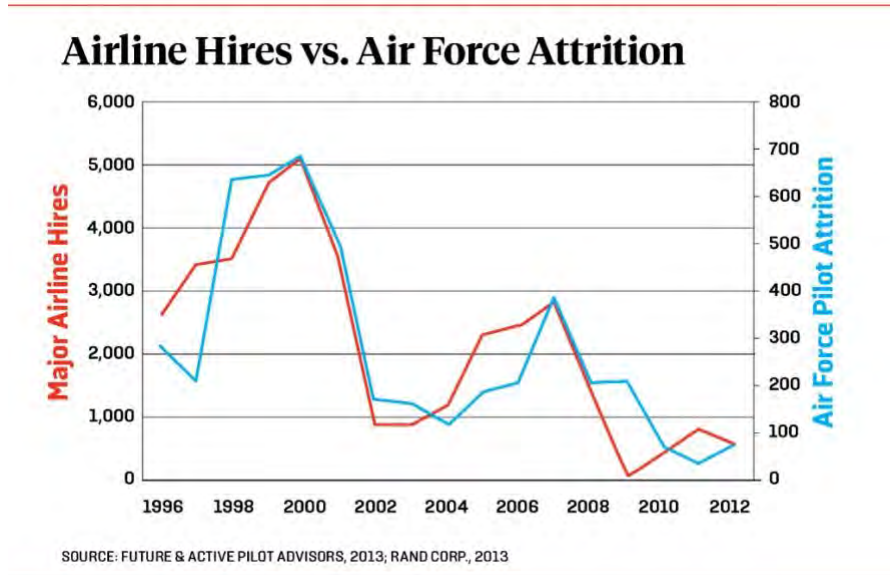


Figure 2 – Airline Hires vs. Air Force Attrition
Source: RAND Corp., *Future and Active Pilot Advisors*

13. The cost of training a USAF pilot is between \$3-11 million depending on the aircraft, and it takes approximately five years for a pilot to be ready for operations.¹⁹ The US Government Accountability Office has projected the pilot shortage to continue through 2023.²⁰ Recognizing the need to retain its investment by lowering pilot attrition, the USAF has been very aggressive with its program to retain pilots. In the past, it has found success in closing gaps in pilot manning by offering financial incentives.

14. In 2016, the USAF increased the bonus they pay pilots to remain in uniform from \$25,000 to \$35,000.²¹ The USAF recognizes that money isn't the only solution, however

¹⁷ Nolan Sweeny, "Predicting Active Duty Air Force Pilot Attrition Given an Anticipated Increase in Major Airline Pilot Hiring." RAND Corporation, (2015) https://www.rand.org/pubs/rgs_dissertations/RGSD338.html

¹⁸ *ibid.* 20

¹⁹ United States Government Accountability Office *Military Personnel: DOD Needs to Reevaluate Fighter Pilot Workforce Requirements*. GAO-18-113, a report to the Committee on Armed Services, U.S. Senate. April 2018.

²⁰ *ibid.*

²¹ Christopher Woody. "The Air Force may pay pilots nearly a half-million dollars to stay in uniform". *Business Insider*, 30 March 2017. <https://www.businessinsider.com/air-force-pay-pilots-bonus-incentives-to-stay-in-uniform-2017-3>. The USAF determined that \$48,000 per year was the ideal amount, but due to financial pressures Congress only approved \$35,000. The maximum offer is 13 years and would earn the individual \$455,000 on top of their normal salary

it is a significant part of its comprehensive strategy to keep people in uniform, especially those who are attracted by the higher salaries offered by commercial airlines. The additional cost of this Aviation Bonus Program saves money by retaining the \$3-11 million already invested in each pilot. It also ensures the availability of trained pilots for the time the individual agrees to serve.

Royal Air Force (RAF)

15. Overall, the British Ministry of Defence (MOD) “is facing their biggest [manning] shortfall for a decade.”²² The pilot shortage in the RAF is one of the most significant manning issues with “a shortfall of 800 regulars, 23% below requirement”²³ The MOD has a standing Financial Retention Incentive (FRI) policy that it can enact “to encourage staff to stay in specific specialisations.”²⁴ FRIs are introduced when certain occupations reach critical manning shortages and require the individual to complete a Return of Service. The individual is required to pay back the money if the specified time period is not completed. In addition to finding ways to increase training capacity the MOD is currently using financial incentives as well as various career streams.²⁵

16. They have introduced several FRIs to pilots and new pay models that allow pilots to remain in flying positions and not have a requirement to take non-flying roles as part of their career progression. By separating pilots into Specialist aircrew and Ground Branch aircrew, experience is retained to fly aircraft with the former, who will max out at the equivalent of Major.²⁶

Royal Australian Air Force (RAAF)

17. The booming aviation industry in Asia, and specifically in China is putting pressure on the RAAF to retain its pilots. Experienced RAAF pilots can earn up to three times their salary by working for a Chinese airline.²⁷ China’s air traffic is forecasted to quadruple over the next 20 years, and due to its close proximity, Australia is a prime target from which to recruit experienced pilots.²⁸ In the face of this it appears that the RAAF is not in a crisis situation similar to what is being seen in the RCAF, USAF and RAF. This can be attributed largely to the initiatives it has in place that have resulted from pilot shortages in the past. In 1988 the Australian Defence Force (ADF) instituted a

²² Rajeev Syal, (2018, April 18). “Armed forces facing biggest shortfall in staff for a decade.” *The Guardian*. 18 April 2018.

²³ National Audit Office. *Ensuring sufficient skilled military personnel*. HC 947 Session 2017-2019 Report by the Comptroller and Auditor General. April 2018. ” The RAF can only train 132 new pilots when they need 180 per year.

²⁴ Joint Service Publication. *Tri-service regulations for pay and charges*. Ministry of Defence, 754: 2013.

²⁵ National Audit Office, 54

²⁶ *ibid.*

²⁷ Katrina Yu, “Booming Chinese aviation industry a boon for Aussie pilots.” *SBS News*, 4 January 2017. <https://www.sbs.com.au/news/booming-chinese-aviation-industry-a-boon-for-aussie-pilots>

²⁸ *ibid.*

\$70,000 AUD bonus (approx. \$64,100 CAD on 1 Apr 88) for pilots that agreed to commit themselves to an additional six years of service.²⁹

18. In addition to the financial incentive, the RAAF initiated a wide range of measures aimed at improving retention over the long-term. This included reducing the requirement for pilots to fill non-flying positions and improving conditions for families.³⁰ In 2008, the RAAF continued with a “more sophisticated and co-ordinated approach to the problem [of pilot retention] and not simply an exercise in throwing money at it in the form of retention bonuses”.³¹ This was part of a broader approach by the Australian Defence Force (ADF) to improve the nonmonetary factors that lead to job satisfaction. However, the ADF has continued to use financial incentives based on the understanding that “members who would otherwise resign had a bonus not been offered, will change (or at least defer) their decision by accepting the bonus and a subsequent undertaking for further service”.³²

19. Individuals can be offered a bonus of up to \$100,000 AUD for a fixed period of between one and three years.³³ This is not something that is handed out indiscriminately; there are many factors that must be considered before such a bonus is offered. Examples include critical workforce structure shortages and capability shortages, among others.³⁴

20. The bonus can be paid out in full to the individual, or the full amount or a percentage of the bonus can be used as an employer contribution to superannuation. The agreed period of effective service must be served in the “position, employment category or specialization for which the bonus was offered” and if the member leaves the military at any point within this timeframe they must pay back the entire amount.³⁵

Analysis

21. “Retention is a voluntary move by an organisation to create an environment which engages employees for [the] long term”.³⁶ Lucas argues that employers do not appreciate the true costs of employee turnover and therefore do not allocate the necessary effort and resources to retention efforts.³⁷ A report in the Canadian HR Reporter states that “many

²⁹ *Parliamentary Debates*. House of Representatives Official Hansard No. 161: 27 April 1988.

³⁰ Defence Jobs. *Operations Officer*. Australian Defence Force. 2018. This led to the establishment of the Operations Officer (OPSO) occupation, which was created to take away “mission planning, tasking, coordination and monitoring of air operations” responsibilities away from pilots and other aircrew and allow them to focus on flying.

³¹ Daniel Cotterill, “ADF pilot recruitment, training and retention reform. *Australian Defence Magazine*.” 10 January 2008. <http://www.australiandefence.com.au/E7A1B650-F806-11DD-DFE0050568C22C9>

³² Hoglin, P, Angie Sturrock, Phil Brezzo and Dave Goble. “Military retention bonuses: Fact and fiction.” *Australian Defence Force Journal*, no. 186 (2011): 39

³³ Approx. \$89,000 CAD on 25 Oct 2019

³⁴ ADF Policy. *Division 2: Bonus Framework*. Department of Defence Pay and Conditions, ADF Manual Ch. 3 part 5, 2018.

³⁵ *Ibid*.

³⁶ Sandeep Bansal, “Employee Retention Strategies”. *International Journal of Research in Management & Social Science* 2, no. 2: (April-June, 2014)

³⁷ Suzanne Lucas. “How much employee turnover really costs you.” *Inc*. 30 August 2013.

CEOs are sleepwalking their way into a crisis.”³⁸ This is apparent in the CAF as it has only recently acknowledged its need to focus on retention.

22. SSE acknowledges this need and places great importance on quality of life initiatives that aim to address personnel and family welfare as well as a variety of other measures that are part of a plan to improve recruitment and retention.³⁹ However, it will take some time for the programs to be implemented and for the results to be seen. While such benefits “have a significant impact on the issue of attracting and retaining key and high performing employees...[they] will not replace performance incentives as motivators”.⁴⁰ Because the CAF does not offer pay-for-performance, the only alternative is to offer a financial retention incentive.

23. There is potential to further exacerbate the problem by burning out the remaining pilots as attrition continues at its current high pace. These points highlight the need for the RCAF to expedite retention bonuses in order to stop the bleeding, while medium-to-long-term solutions are advanced. The business case for offering a retention bonus to entice pilots to remain in the service for a fixed period is easy to make.⁴¹ This would help retain pilots for a known period of time and extend and increase the return on investment in each pilot. Additional investment spent on training, education and professional development makes retaining the corporate knowledge that resides in each pilot even more valuable than the direct costs that go into pilot-specific training and development.

24. A joint research paper that was presented in the Australian Defence Journal noted that retention bonuses must be viewed as a short-term fix until a long-term solution can be implemented.⁴² Retention bonuses lose their effectiveness over time and often, no long-term solution is implemented to address the issue that the retention bonus aimed to mitigate.⁴³ Retention bonuses work, but only as part of a comprehensive retention strategy, including measures already being undertaken by the CAF through SSE and other RCAF programs.⁴⁴ The research paper goes on to provide pragmatic suggestions to achieve the specified intent of the incentive. Retention bonuses cannot be too low, so that retention is unaffected, but they cannot be too high so that they are a financial liability of the RCAF and also so high that individuals from other occupations feel that they are not being treated equally. “While setting a bonus amount that entices a member to stay could be seen to represent the efficient use of government funds, it also requires a well-defined

<https://www.inc.com/suzanne-lucas/why-employee-turnover-is-so-costly.html>

³⁸ Vander Weir, Marcel, “Talent shortage threatens growth.” *Canadian HR Reporter*. 9 June 2018.

<https://www.hrreporter.com/recruitment-and-retention/37862-talent-shortage-threatens-growth>

³⁹ Department of National Defence. *Strong Secure Engaged, Canada’s Defence Policy*. Ottawa: Minister of National Defence, 2017.

⁴⁰ Schwindt, Herman, *et al*, *Canadian Human Resource Management*. (Toronto: McGraw-Hill Ryerson, 2016).

⁴¹ A recruitment allowance is already available in compensation and benefits instructions (CBI) 205.525 for trades at less than 95% trained effective strength (TES) and not predicted to increase to more than 95% during the next two calendar years,

⁴² Hoglin, Sturrock, Brezzo and Goble, “Military retention bonuses...”

⁴³ *ibid*.

⁴⁴ David Pugliese, “RCAF launches further initiatives to retain skilled personnel,” *Ottawa Citizen*, 10 June 2019.

intent for the bonus in a measurable context, the inherent difficulty of which is [evident].”⁴⁵

RECOMMENDATIONS

25. Retention bonuses are neither anathema nor panacea. They are recommended as part of an overall comprehensive program; as a short-term measure towards stopping the hemorrhaging of RCAF pilots until a mid-to-long-term solution is implemented. Retention bonuses acknowledge the high cost of employee turnover and ensure the availability of trained pilots for the time individuals agree to serve, which facilitates operational and strategic planning.

a. The length of time to lock-in pilots should be dependent on the amount of time the CAF believes it will take to address the “ongoing, systemic recruiting challenges...in its efforts to counter higher rates of attrition and fill certain chronically understaffed occupations.”⁴⁶ The amount of time should be at the discretion of the individual pilot, with increasing incentives for each year agreed upon up to the maximum. To make the program equitable for pilots who still have remaining obligatory service, an equivalent amount of time should be offered following their obligations.

b. The amount offered should follow the suggestions in para 24 in order to achieve the specified intent of the incentive. Further study is required by HR experts to determine what the optimal amount is. As with the RAAF, if a pilot releases prior to their agreed upon timeframe then the entire amount should be paid back in full.

c. Options to receive payment should be administered in the same manner as the payment in lieu (PIL) of the CF Severance Pay Entitlement, which is a proven and effective process.⁴⁷

26. The second recommendation is for “a dual-track system where an aviator can choose to remain flying or continue on a leadership track that would take them out of the cockpit and on to higher ranking posts”.⁴⁸ Most, if not all, pilots join the RCAF to fly aircraft and conduct missions, however the standard career progression forces pilots out of the aircraft to take non-flying postings. Additionally, with a few exceptions, these staff postings cause pilots to lose aircrew allowance, ranging from \$327-621 per month. If a dual-track system is not implemented, then a recommended compromise is to allow pilots to retain their aircrew allowance even if they are in non-flying positions.

⁴⁵ Hoglin, Sturrock, Brezzo and Goble, “Military retention bonuses...”

⁴⁶ Auditor General of Canada Report

⁴⁷ Department of National Defence and the Canadian Armed Forces. *Changes to Canadian Forces Severance Pay*. 2013. Options: elect to be paid the full benefit; elect to be paid part of the benefit and to receive any remaining benefit at release; or receive all benefits at release.

⁴⁸ Barrie Barber, “Air Force facing growing crisis in pilot shortage,” *Dayton Daily News*, 24 November 2017.

CONCLUSION

27. The USAF's pilot shortage of 10% has been described as potentially breaking the force. This makes the RCAF's 17% shortage even more critical to address. It has been clearly demonstrated that the pilot shortage in the RCAF has been an enduring systemic issue for over 20 years. Because the global demand for trained pilots continues to increase and draw pilots away from the RCAF and other air forces, immediate action is needed to ensure that operational readiness is not affected. By benchmarking the USAF, RAF and RAAF it is clear that retention bonuses and a dual-track career option are required, as part of a comprehensive retention program, to directly address two of the main reasons pilots leave the RCAF. To ignore this reality would be to further jeopardize the RCAF's ability to deliver Air Power.

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