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CANADIAN FORCES RETURN TO THE NATO AIRBORNE EARLY WARNING FORCES

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INTRODUCTION

This service paper will focus on the Canadian Air Force, its ties to the North Atlantic Treaty Organization (NATO), and especially the NATO Airborne Early Warning Forces. It will also focus on the Canadian Air Force's future projects to overcome political and doctrinal challenges. The paper will show an alternative, effective and efficient way to face these challenges.

After World War II Canada joined multiple international security organizations. Canada joined the United Nations (UN) in 1945, followed by the North Atlantic Treaty Organization in 1949 and the North American Air Defence Command (NORAD) in 1958.

The first part of the paper will draw a picture of the history of the Canadian Air Force as part of the international (military) environment, followed by a short analysis about the doctrinal requirements and the resulting taskings. The third part will focus on the capabilities and limitations of the platforms in service in the Canadian Air Force which are facing tasking challenges now and in the future. The fourth part will concentrate on the NATO Airborne Early Warning Forces as a possible alternative to accomplish the doctrinal challenges.

The content of the service paper will be unclassified and is based on open sources and experience. The paper will at no time judge any political decisions.

NATO and Canada after World War II

There was an initiative while NATO was founded, to divide NATO in two parts or two pillars. One pillar would be NATO in Europe, while the other pillar would be NATO in North

America. While the Europe portion (Belgium, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal and the United Kingdom) would have consisted of almost equally equipped and sized forces, the North American portion would have been the United States and Canada, a very diverse combination of capabilities and size. Fortunately, this idea was successfully fought by Canadians and NATO was founded in 1949. Canada was a founding member of NATO and participated throughout the last 60 years in every NATO operation. During the start of the Cold War the mid 1950s about 10,000 Canadian troops were stationed in Western Europe. This number decreased throughout the 1960s and after the Cold War ended in 1990s, the majority of the Canadian troops left Europe for Canada.

They returned to Europe with small contingents in 1999 for a 78 day period to fight the ethnic cleansing in Kosovo and were involved from 2001 until 2014 with fighting to restore law and order in Afghanistan in support of the coalition of the willing,

Nevertheless, a small contingent of 120 soldiers have been assigned since 1982 to the multinational NATO Airborne Early Warning and Control Force (NAEWC&CF) within Germany. This all changed in 2011.

A spokesman of the then-minister of defence Peter MacKay said in June 2011:” Over the course of the past months, the Department of National Defence and the Canadian Forces have identified numerous efficiencies that do not affect the core capabilities or readiness of our military, as parts of the government’s efforts to ensure best value for tax dollars.”¹

As a result the participation of Canada in the NATO Airborne Early Warning and Control Forces program (both the manned and the unmanned portion) had been cancelled.

Karolina MacLachlan, a Graduate Researcher at the Centre for International and Defence Policy at Queen’s University in Kingston, analyzed in her article for opencanada.org in June

¹ CBC News 9th Jun 2011 by James Cudmore

2015, that Canada is backing away from NATO and that one of the main reasons was “...NATO’s delayed response to a Canadian request for the use of AWACS planes...these assets were not immediately available for the Canadian Forces operating in southern Afghanistan.”²

Prime Minister Steven Harper informed NATO Secretary General about the withdrawal of Canadian Forces from the NATO Airborne Early Warning and Control Forces in a letter in 2011. In 2012 the withdrawal started with a reduction of one third per year and finished in summer 2014.

Doctrinal Requirements

Based on the Canadian Armed Forces Air Doctrine B-GA-400-000/FP-000 draft the Command, Sense, Act, Sustain and Generate functions are still applicable and should always be considered when planning operations.

In the future doctrine of the Air Force, the Sense-function is described as such: “sense provides the commander with the knowledge of the situation, which is required in order to make decisions about what action to take.”

A big impact of the sense function is to provide commanders with situational awareness, based on a common operating picture, and to manage the information with the goal that every participant is getting the information needed to fulfill the tasking.

Aurora’s tasking is manifold – a very limited amount of operators are covering very demanding operational taskings. Originally introduced as an anti-submarine platform, the gap towards a complex air battlefield situation is obvious. In this domain the Aurora might be a contributor; it should not be the only or main asset to accomplish the tasking.

² Karolina MacLachlan in Opencanada.org 9th Jun 2015

The Act function is the function that integrates mobility, joint fires and information operations. Act actually “shapes” the battlespace. The battlespace is influenced by establishing control of the air, attacking from the air in support of surface forces and coordinating information operations as per doctrine. This goal can be partly achieved by the Aurora fleet. However, in this domain, the lack of operators on board are limiting the capabilities of the fleet in a complex air battle environment.

The Conclusion of the Doctrine based on the history and development of the Canadian Air Force states: “... [the] strategic role of the Canadian Air Force today is to achieve seamless operational integration at short notice with our allies [and] it is likely that this similiarity will continue for the foreseeable future.” This should redirect the Canadian Forces to seek more international coordination.

JUSTAS

The JUSTAS project will see the acquisition of a Medium Altitude, Long Endurance (MALE) UAV for the Canadian Forces. The most likely and only candidate is a modified Global Hawk, the Polar Hawk. The contract will include \$900 million for the acquisition and \$100 million for the life time maintenance of the UAV's. The Canadian Air Force has tried and failed six times since 2005 to acquire either a permanent fleet of drones or a temporary capability.

CP-140 Aurora

Presently, the Canadian Air Force is employing 18 Lockheed CP-140 Auroras. The Auroras are splitted into 2 Wings: 19th Wing is stationed at Canadian Forces Base (CFB) Comox, British Columbia with 3 aircrafts to cover West Coast taskings; 14th Wing is stationed at CFB Greenwood, Nova Scotia with 15 aircraft for East Coast taskings, but also for the training of

Aurora operators. The Aurora was introduced into the forces in 1980 in the primary role of Maritime Patrol Aircraft, but also in the anti-submarine warfare role. Due to its long endurance and the extended working range of almost 7500km, the Aurora was assigned numerous additional roles. The aircraft is currently employed in domestic and international operations in addition to her original role – as a command, control, computers, communication, intelligence (maritime and overland), and reconnaissance (C4ISR) platform, but also for strike coordination abroad and in the Search and Rescue function at home. This is all being done with a crew of 10, but can be tailored according to the mission.

The Aurora fleet is currently undergoing a major modification program. As of 2014, the aircrafts are undergoing a major upgrade (264 million CAD) for 14 aircraft on the airframe (Aurora Structural Life Extension Project-ASLEP) which is adding 15,000 flying hours on each tail. The second part of the upgrade is the Aurora Incremental Modernization Project (AIMP – 1.67 billion CAD) which will enable the Canadian Air Force to keep the aircraft safe and operational until 2020. There is an official export request towards the US for the purchase of the Large Aircraft Infrared Countermeasures (LAIRCM) self-defense system worth 225 million CAD.

The whole investment to keep the fleet current and valuable will have cost approximately 2.2 billion CAD and the replacement costs for the Aurora fleet is estimated at around 5 billion CAD.

NATO AWACS and NATO AGS

The NATO E-3A Component was founded based on an Memorandum of Understanding signed by the Defence Planning Committee in 1978. Initial Operational Capability (IOC) was gained in 1982 and Full Operational Capability (FOC) in 1988. Canada was amongst the

founding members and the third largest contributor in terms of financial support and personnel to the Component. The NATO AWACS program is currently using a 375 million CAD yearly budget operating 16 modified Boeing 707, which will be extended to approximately 500 million CAD to add the NATO AGS system fleet of 5 Global Hawks. These Global Hawks will enter service in 2016/2017 and will be available for all 15 participating partners of the program.

Financial Factor

Officially the main reason for Canada's withdrawal from the above named NATO program was the financial burden already mentioned in the history paragraph. If we add the costs of the JUSTAS program, the costs of keeping the Aurora fleet up to date and the costs for the Aurora replacement, we will end up in the vicinity of 8 billion CAD, a sum the government must pay within the next 10-15 years.

On the other hand, we need to take a close look at the savings resulting from leaving the NATO Airborne Early Warning and Control Forces.

Canadian Forces planned to save 90 million CAD per year by pulling out of NATO programs operating Alliance Ground Surveillance system (AGS) and the same amount for pulling out of the Airborne Early Warning component known as AWACS. This will add up to approximately 2 billion CAD within the next 20 years.

Industrial Benefit

Between 1992 and 2010 Canada's NATO AWACS participation contributed 161 million CAD towards so called depot level maintenance, but Canadian companies received 180 million CAD in contracts as part of the service package.

Even now, as not being part of the NATO Airborne Early Warning and Control Forces, Canadian companies benefit from the NATO AGS program. One example is General Dynamics Canada which recently has been awarded with a 32 million CAD contract by Northrop Grumman for key communications network technology for the NATO AGS program. For sure, remaining in the program would have created a financial benefit for Canadian arms industry.

Political Implications

There are a fair amount of Canadians who are concerned about the government being so focused on the relations with the United States. Some are even more concerned that US foreign policy was the driving factor behind some of the last administration's decisions.

Martin Chadwick, a notable York University strategic studies professors believes, "withdrawal from both programs distances Canada from NATO."³ However, this distance began forming long before. For example, J.L. Granatstein questions in a Policy Paper he wrote for the Canadian Global Affairs Institute in March 2013 whether "NATO (is) still necessary for Canada."⁴

CONCLUSION

The ageing fleet of the CP-140 Aurora and the delayed acquisition of the JUSTAS program may trigger discussions regarding the course of the Canadian government's military policy of the last decade, whether it was successful or needs to be corrected. The draft of the new Air Force Doctrine is clearly focusing on Combined Operations and Canada's focus of being able to blend into any coalition environment. The overall costs for the airborne early warning and control role will be around 8 billion CAD within the next 10-15 years, for many roles, which are

³ National Post, "Canada pulls out of NATO airborne surveillance program to save \$90M" last accessed 5 January 2015, <http://news.nationalpost.com/news/canada/canada-pulls-out-of-nato-airborne-surveillance-programs-to-save-90m>

⁴ Canadian Defence and Foreign Affairs Institute, "Is NATO still necessary for Canada ?" last accessed 4th February 2015 http://www.operationspaix.net/DATA/DOCUMENT/7804~v~Is_NATO_Still_Necessary_for_Canada_.pdf

covered already by numerous platforms specialized on these roles. The United States and the NATO Airborne Early Warning and Control Forces will be controlling more than 50 aircrafts in the primary role. This number will be increased when the Turkish Air Force with its fleet of 737 will declare FOC.

Historically, the Canadian Forces were for the last 60 years a strong contributor to the NATO Alliance. They had up to 10,000 soldiers stationed in Europe, either in independent units, or in mixed units.

The cost “explosion” including the costs for the replacement of the Auroras will be a big burden on the budget of the armed forces and might even being a delaying factor at the end of the Auroras’ lifetime.

The JUSTAS program was delayed several times and might not enter service at all – it seems that the political will is decreasing with the requirement of military to purchase an armed version.

In summary, we can say that the withdrawal from the above mentioned NATO programs initially saved money, but it will cost the Canadian Forces to keep the capabilities in the future. There is a strong tendency amongst the other NATO nations to develop, purchase and sustain military equipment like the Eurofighter/Typhoon or the Airbus 400 transport aircraft. Canada is doing the opposite with the JUSTAS and the Aurora program. A “canadized” maritime control aircraft combined with a “canadized” Global Hawk UAV, trying to fill gaps in the battlespace. As an advantage, the majority of the parts and programs are produced or made by Canadian companies – industrial benefit at its best, but on the other hand all program costs for development and sustainment is solely on the “shoulders” of the Canadian Defence budget.

Canada would have done best to remain in the program and focus on multinational cooperation.

The new government seems to be more focused on the multinational approach – up to now, only as a promise during the election phase. The focus seems to be on supporting United Nations peace enforcing or peacekeeping operations, a basic core skill for which the Canadian Forces are well known and possess a very high reputation.

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