

# REINVESTING IN THE CANADIAN ARMED FORCES: A PLAN FOR THE FUTURE

## Report of the Standing Senate Committee on National Security and Defence

The Honourable Daniel Lang, Chair  
The Honourable Mobina S.B. Jaffer, Deputy Chair

May 2017



Ce document est disponible en français

This report and the committee's proceedings are available online at:  
[www.senate-senat.ca/secd.asp](http://www.senate-senat.ca/secd.asp)

Hard copies of this document are available by contacting:  
The Senate Committees Directorate at (613) 990-0088 or by email at  
[SECD@sen.parl.gc.ca](mailto:SECD@sen.parl.gc.ca)

## CONTENTS

---

MEMBERS OF THE STANDING SENATE COMMITTEE ON NATIONAL SECURITY AND DEFENCE	III
ORDER OF REFERENCE	IV
EXECUTIVE SUMMARY	V
RECOMMENDATIONS	X
INVESTING IN THE DEFENCE OF CANADA THROUGH THE CANADIAN ARMED FORCES	1
INTRODUCTION	1
OVERVIEW	1
SUPPORTING THE MILITARY FAMILY	2
KEEPING THE TEAM TOGETHER	3
INCREASING COOPERATION WITHIN NORAD	4
SHARED CONCERNS ABOUT DOMAIN AWARENESS	4
INCREASE NORAD COOPERATION	6
STRENGTHENING THE AIR FORCE	8
REPLACING CANADA’S CF-18s	10
PLATFORM IMPLICATIONS	10
ESSENTIAL INVESTMENT IN THE NORTH WARNING SYSTEM	13
UPGRADING THE HELICOPTER FLEET (CORMORANTS AND GRIFFONS)	14
ADOPT AND FUND AN INTEGRATED AIR DEFENCE SYSTEM	17
UNMANNED AERIAL VEHICLES (UAVS)	19
AIR FORCE RECRUITMENT AND TRAINING	22
STRENGTHEN THE ROYAL CANADIAN NAVY	24
BEGIN FUNDING ROYAL CANADIAN NAVY’S CAPABILITY GAPS	30
ARCTIC AND OFFSHORE PATROL SHIP (AOPS)	33
SUBMARINE FLEET TO PROTECT CANADIAN COAST	35
ENSURING A BALANCED PROTECTION FOR CANADA	38
SURFACE COMBATANTS NEEDED – LET’S START BUILDING!	39

AEGIS OR SIMILAR STYLED PLATFORM REQUIRED URGENTLY .....	40
AUXILIARY OILER REPLENISHMENT SHIPS NEEDED! .....	41
MARITIME COASTAL DEFENCE VESSELS INADEQUATE.....	42
CANADA NOT DEALING WITH SEA MINE THREATS. IT SHOULD! .....	43
ENSURE ARMY READINESS.....	44
LEARNING THE LESSONS FROM AFGHANISTAN IS IMPORTANT. ....	45
MAKE THE ARMY RESERVE FORCE TRULY PART OF THE “DEFENCE TEAM” .....	48
LOOK TO THE RESERVE FORCE FOR SPECIALIST SKILLS .....	53
AN ARMED CONSTABULARY COAST GUARD .....	55
KEEPING THE NORTH STRONG AND FREE .....	57
JOINT TASK FORCE NORTH .....	59
ENHANCING SEARCH AND RESCUE .....	62
BOLSTER RESERVES AND RANGERS IN CANADA’S NORTH.....	63
ELIMINATING SEXUAL MISCONDUCT .....	67
SEXUAL HARASSMENT AND POWER RELATIONSHIPS.....	68
SENIOR LEADERS NEED TO ACT TO CHANGE CULTURE.....	68
ESTABLISH A CENTER FOR ACCOUNTABILITY FOR SEXUAL ASSAULT AND HARASSMENT... 68	
MILITARY COMMANDERS MUST SHOW RESULTS .....	71
REFLECTING CANADA’S DIVERSITY.....	74
SPECIAL OPERATIONS FORCES .....	76
APPENDIX A - OPEN LETTER TO THE PRIME MINISTER FROM FORMER AIR FORCE COMMANDERS.....	77
APPENDIX B - DEFENCE ACQUISITION GUIDE 2016.....	79
APPENDIX C - CURRENT NAVAL CAPABILITIES .....	81
APPENDIX D – LIST OF WITNESSES .....	88

## **MEMBERS OF THE STANDING SENATE COMMITTEE ON NATIONAL SECURITY AND DEFENCE**

---

The Honourable Daniel Lang, Chair  
The Honourable Mobina S.B. Jaffer, Deputy Chair

And

The Honourable Senators:

Lynn Beyak  
Gwen Boniface \*  
Claude Carignan, P.C.  
Jean-Guy Dagenais  
Colin Kenny  
Frances Lankin, P.C. \*  
Marilou McPhedran \*  
Lucie Moncion \*  
Raymonde Saint-Germain \*  
Vernon White

*Ex-officio members of the Committee:*

The Honourable Senators Larry Smith (or Yonah Martin) and Peter Harder, P.C. (or Diane Bellemare).

*Other Senators who participated from time to time in the work of the Committee:*

The Honourable Senators Larry W. Campbell, James S. Cowan, Joseph A. Day, Elaine McCoy, Don Meredith, Wilfred P. Moore, Victor Oh, Dennis Glen Patterson, André Pratte, Nancy Greene Raine and Pierrette Ringuette.

*Senators' Staff*

Naresh Raghubeer, Director of Policy and Parliamentary Affairs, Office of Senator Daniel Lang  
Alexander Mendes, Legislative Assistant, Office of Senator Mobina Jaffer  
Roy Rempel, Policy Advisor, Office of Senator Smith

*Clerk of the Committee:*

Adam Thompson, Clerk  
Barbara Reynolds

\* These senators joined the committee in December 2016 or later, after the committee had completed hearing evidence in relation to this study. As such, they may or may not endorse the conclusions reached by the committee.

## **ORDER OF REFERENCE**

---

Extract from the *Journals of the Senate*, Thursday, April 21, 2016:

With leave of the Senate,

The Honourable Senator Lang moved, seconded by the Honourable Senator Tannas:

That the Standing Senate Committee on National Security and Defence be authorized to examine and report on issues related to the Defence Policy Review presently being undertaken by the government;

That, pursuant to rule 12-18(2)(b)(i), the committee be authorized to meet from June to September 2016, even though the Senate may then be adjourned for a period exceeding one week;

That the committee be permitted, notwithstanding usual practices, to deposit with the Clerk of the Senate its report if the Senate is not then sitting, and that the report be deemed to have been tabled in the Chamber; and

That the committee table its report no later than December 16, 2016, and that the committee retain all powers necessary to publicize its findings for 180 days after the tabling of the final report.

After debate,

The question being put on the motion, it was adopted.

Charles Robert

*Clerk of the Senate*

Extract from the *Journals of the Senate*, Monday, December 12, 2016:

The Honourable Senator Lang moved, seconded by the Honourable Senator Smith:

That, notwithstanding the order of the Senate adopted on Thursday, April 21, 2016, the date for the final report of the Standing Senate Committee on National Security and Defence in relation to its study of issues related to the Defence Policy Review presently being undertaken by the government be extended from December 16, 2016 to June 30, 2017.

The question being put on the motion, it was adopted.

Charles Robert  
*Clerk of the Senate*

## EXECUTIVE SUMMARY

---

In November 2016, the Standing Senate Committee on Security and Defence published its first report of the 42<sup>nd</sup> Parliament titled: *UN Deployment: Prioritizing Commitments at Home and Abroad*. This report was adopted by the Senate.

In April 2017, the committee turned its focus to the Canadian Armed Forces and the current Defence Policy Review initiated by the government. The report, titled: *Military Unfunded: The talk must match the walk* established broad themes which must be addressed by the government. Specifically, it urged the government to

1. Increase spending to the military from the present level of 0.88% of Canada's gross domestic product (GDP) to 2% of GDP by 2028;
2. Fix the procurement system by adapting current policies so that the department of National Defence, not Public Services Procurement Canada is responsible for military procurement; appoint a lead negotiator and interlocutor for each procurement project valued at over \$1 billion and assign accountability and responsibility;
3. Do more to coordinate cyber defences and protect critical infrastructure;
4. Establish a process for a public review of the military every four years;
5. Build cross-party consensus on issues related to the military and veterans;
  - That the Minister of National Defence ensure members of the three services meet more regularly with parliamentarians, in committee and in their constituencies to further the understanding of the role of the Canadian Armed Forces and their requirements; and
  - That the Prime Minister regularly brief the Leader of the Official Opposition and the leader of the third party on matters of national security and defence.
6. And called on the Parliament of Canada to establish a Special Joint Parliamentary Committee with the Senate and House of Commons to study and report on Military Procurement;

This report, *Reinvesting in the Canadian Armed Forces: A plan for the future* lays out a roadmap on how the government can effectively address the strategic challenges which confront Canada in the 21<sup>st</sup> century and the men and women who serve their country in the Canadian Armed Forces. It takes into consideration the reality that Canada is a continent-sized country with complex defence requirements, including the longest coastline in the world and with three oceans to protect.

Protecting Canada and Canadians requires urgent investments by the government in our military. Clearly, spending 0.88% of GDP is inadequate to address Canada's many defence requirements. The government is making a choice to run large deficits which support a growth

program spending in other areas of government even while it has thus far taken no steps to address Canada's defence needs,

## **SUPPORTING THE WOMEN OF THE CANADIAN ARMED FORCES**

The government must move to implement all the recommendations from the Deschamps Report to support women in the military. The issues identified and steps the military is taking through Operation Honour to address them must be a priority for the government. The committee wants to see results and will turn its attention to this subject in a future report during this Parliament.

## **ENHANCE RECRUITMENT AND DIVERSITY IN MILITARY**

More should also be done to enhance recruitment. It is time the government implement a new model of pay for individuals with specialized skills which are in demand, and that attractive bonuses be offered to recruit and retain these individuals. Additionally, more women should be encouraged to join the military, as the low participation rate of 8.9% in the air force is unacceptable. Canadians want to see clear results when it comes to increasing the participation of women. After all, it is 2017!

## **MODERNIZE OUR NORAD AGREEMENT TO INCREASE COOPERATION (Page 6)**

Canada is an important part of NORAD, but unfortunately, we have not made the important investments and key decisions to fully support this binational defence partnership. This is the only partnership in the world, where two sovereign nations share continental defence and security. The committee recommends the government increase cooperation within NORAD. To keep Canada and the United States safer, the Government of Canada must increase its effectiveness within NORAD by actively participating in the defence of the continent against ballistic missiles which may threaten Canadian and American cities. The government should modernize the NORAD agreement to increase cooperation in the areas of maritime defence, domain awareness cooperation and cyber defence.

## **AIRFORCE - CANCEL INTERIM FIGHTER JETS REPLACEMENT (Page 12)**

The interim fighter jet replacement plan is a political decision that does not serve the interest of the Royal Canadian Air Force or Canadian taxpayers. This decision may cost from \$5 billion to \$7 billion and will limit our air force's ability to be fully interoperable within NORAD and NATO. The committee is very concerned that 13 former Royal Canadian Air Force generals have come forward and publicly questioned the government's decision. The committee views these concerns as very credible. This decision calls into question the \$750 million in benefits Canada has already received as part of its participation in the Joint Strike Fighter Program. The committee calls on the government to immediately commence a



competition to replace its existing CF-18 fighters with the aim of taking a decision on a new fighter aircraft by June 30, 2018. This would negate the need for an interim fighter jet replacement procurement, a procurement that should be cancelled.

### **AIRFORCE INVESTMENTS (Page 13)**

The air defence of the continent and the provision of an effective Air Force capability are core requirements for the defence of Canada. A number of specific investments should be made to support the Royal Canadian Air Force as defence spending is increased to the required 2% of GDP by 2028. The committee recommends that these steps include:

- the renewal of the current North Warning System which is now some 30 years old;
- an increase of the fighter jet fleet to 120 jets in order to meet the government's declared objective to defend Canada while simultaneously meeting our NORAD and NATO commitments;
- replacement of the current fleet of air-refuelling tankers in order to support fighter jets;
- replacing the Griffon helicopter fleet with non-civilian, medium-to-heavy-lift military helicopters with sufficient speed and lift capacity to support military needs;
- increasing the number of heavy-lift helicopters to 36; and
- adding new capabilities, such as a fleet of 24 attack helicopters to protect the current Chinook helicopter fleet and our military personnel.

### **GET MOVING ON ACQUIRING AN UNMANNED AERIAL VEHICLE FLEET (Page 19)**

The government has been *studying and studying* whether to establish a fleet of unmanned aerial vehicles (UAV) while failing to make the necessary decision to protect Canada's sovereignty, support our troops when deployed, and support search and rescue. The time for study is over. It is time to take a decision and acquire a UAV fleet that will meet the individual requirements of all three services, provide effective surveillance of Canada's territory and support Canadian troops when deployed with an armed capability.

### **ROYAL CANADIAN NAVY – INVESTMENTS (Page 24)**

Canada is a maritime nation. Canada has the longest coastline in the world and is bordered by three oceans. To effectively defend the sea and air approaches to Canadian territory and protect our country's maritime sovereignty, including in the Arctic, the Royal Canadian Navy and Royal Canadian Air Force must be provided with the ships, submarines and aircraft that

are needed. As defence spending increases to 2% of GDP in the next 11 years, the committee recommends that the following capability enhancements be pursued:

- Build a fleet of 12 new submarines equipped with air independent propulsion systems, with six vessels to be based on each coast.
- Procure a second Resolve-Class Auxiliary Oiler Replenishment (AOR) ship by 2018 and retain both vessels, in service in conjunction with the projected Joint Support Ships, so as to permit two vessels to be deployed on each coast.
- Build 18 surface combatants to effectively protect Canadian waters and to form effective naval task groups as may be required.
- Expedite replacement of the Maritime Coastal Defence Vessels with mine sweepers and destroyers capable of protecting Canadian coastal waters and harbours.
- Restore a maritime area air defence capability to the Royal Canadian Navy by equipping an adequate number of the new surface combatants with the AEGIS or similar styled system.

The committee is concerned about the capabilities of the Arctic Offshore Patrol Ships (AOPS) currently under construction. This is based on the fact that that these ships cannot operate in ice more than a metre thick, are slower than a BC Ferry, can only operate in the arctic from June to October and will require a coast guard escort when in the northern waters. These capabilities should be independently reviewed to meet Canada's sovereignty needs.

### **CANADIAN ARMY – INVESTMENTS (Page 44)**

Many of the lessons learned in Afghanistan came at a high price for the Canadian Armed Forces. Capabilities needed to be hastily acquired after the mission began. This costly experience should not be repeated. The committee therefore recommends that the government maintain the range of capabilities acquired in Afghanistan and provide funding needed to maintain army effectiveness and readiness. It also recommends that it acquire 60 upgraded LAV III light armoured vehicles for the army, that it acquire new tactical helicopter capability to support the army — including the incorporation of an armed attack component — and that the government expand the fleet of heavy-lift helicopters from 15 to 36.

### **RESERVES – INVESTMENTS (Page 48)**

When it comes to the Reserves, more must be done. The Government of Canada must ensure that sufficient resources are committed for regular and reserve force training. The committee recommends that the government set aside funding necessary to allow compensation for time spent by reservists in obtaining medical assessments, as they do for regular forces members. Moreover, the government should update Parliament on:

- Steps it has taken to meet the recruitment target of 21,000 Reservists;
- Progress made to strengthen the Army, Navy and Air Force Reserves;
- How successful the Minister of National Defence is in expanding opportunities for college and university students to join the Reserves and
- Progress made in implementing the recommendations made by the Auditor General in relation to the Reserves.

### **KEEPING THE NORTH STRONG AND FREE (Page 57)**

To meet the desire of Canadians to more actively participate in the Canadian Armed Forces, the committee recommends that the Government establish a Reserve Regiment based in Yukon. This year, we are also marking the 70<sup>th</sup> Anniversary of the Canadian Rangers, who play an important role in advancing Canada's national interests in the North. It is time to bolster the program. The government should move ahead to:

- increase the size of the Rangers to 7000,
- seek ways to expand the Junior Ranger and Cadet programs,
- provide the Rangers with coastal capabilities to support search and rescue operations.

### **ESTABLISH AN ARMED CONSTABULARY COAST GUARD (Page 55)**

The Coast Guard is a vital instrument for protecting Canada's sovereignty. The committee believes that the Coast Guard must be provided with the powers and capabilities needed to enforce environmental, transportation, and fishing regulations, as well as *Criminal Code* offences. Making the Coast Guard a constabulary force will increase efficiency, provide needed services and reduce the burden on taxpayers.

## **RECOMMENDATIONS**

---

### **Recommendation 1:**

To increase cooperation within NORAD, and to keep Canada and the United States safer, the Government of Canada must increase effectiveness within NORAD by actively protecting against ballistic missiles heading toward Canadian and American cities.

### **Recommendation 2:**

Modernize our agreement with NORAD to take into consideration the need to increase maritime defences, domain awareness cooperation and cyber defence.

### **Recommendation 3:**

That the Government of Canada immediately commence a competition to replace the fighter jets and make a decision by June 30, 2018; and,  
That the Government of Canada cancel the interim fighter jet replacement plan.

### **Recommendation 4:**

That the Government of Canada prioritize requirements related to the defence of Canada, the Arctic and North America, including the renewal of the North Warning System in conjunction with the United States

### **Recommendation 5:**

That the Government of Canada 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 during combat search and rescue.

### **Recommendation 6:**

That the Government of Canada upgrade the Cormorant (VH-71) presidential fleet of helicopters and temporarily station them on each coast to support search and rescue while the Cormorants (CH-149) undergo a mid-life upgrade.

### **Recommendation 7:**

That the Government of Canada prioritize the replacement of the Royal Canadian Air Force's current fleet of air refuelling tankers.

### **Recommendation 8:**

That the Government of Canada prioritize requirements related to the defence of Canada, the Arctic and North America, by increasing the size of the fighter jet fleet to 120 to defend Canada and simultaneously meet NORAD and NATO commitments.

**Recommendation 9:**

That the Government of Canada

- (i) expedite the acquisition of the unmanned aerial vehicles fleet which includes sufficient options towards meeting the individual needs of the three Services (Army, Air Force and Navy) before the end of 2018;
- (ii) acquire multi-purpose systems for the effective surveillance of Canada's entire territory while also delivering an armed capability to support Canadian Armed Forces operations.

**Recommendation 10:**

That the Government of Canada implement a new model of pay for individuals with specialized skills which are in demand, and that attractive bonuses be offered to recruit and retain these individuals.

**Recommendation 11:**

That the Government of Canada direct Air Force Commanders to prepare a short-, medium- and long-term strategic plan to increase the participation of women in the armed forces.

**Recommendation 12:**

That the Government of Canada conduct a fully independent and impartial review of the capabilities of the Arctic Offshore Patrol Ships (AOPS).

**For Recommendations 13 to 16**

In order for the Royal Canadian Navy to simultaneously meet a high readiness state as part of NORAD and NATO, and to effectively defend Canada, it is recommended that the Government of Canada commit to a balanced naval capability with an effective presence in all three of Canada's oceans and that it:

**Recommendation 13:**

Commence the procurement process before the end of 2018 to acquire 12 new submarines equipped with air independent propulsion systems, six to be based on each coast.

**Recommendation 14:**

Build 18 surface combatants to ensure protection of Canadian waters as well as Canada's naval fleet.

**Recommendation 15:**

Restore maritime defence capability by acquiring the AEGIS or similar styled platform.

**Recommendation 16:**

Procure a second Resolve-Class Auxiliary Oiler Replenishment (AOR) ship by 2018 to address an urgent capability gap on each coast.

**Recommendation 17:**

Expedite replacement of the Maritime Coastal Defence Vessels with mine sweepers and destroyers capable of protecting Canadian waters.

**Recommendation 18:**

The Government of Canada maintain capabilities acquired in Afghanistan and provide funding needed to maintain army effectiveness and readiness.

**Recommendation 19:**

An additional 60 upgraded LAV III light armoured vehicles be acquired for the army.

**Recommendation 20:**

The Government of Canada accelerate plans to acquire new tactical helicopter capability to support the army, including the incorporation of an armed attack component.

**Recommendation 21:**

The fleet of heavy-lift helicopters be expanded from 15 to 36.

**Recommendation 22:**

That the Government of Canada ensure that sufficient resources are committed for regular and reserve force training and that it report to Parliament in 180 days on progress.

**Recommendation 23:**

That the Government of Canada set aside funding necessary, as it does for Regular Forces members, to allow compensation for time spent by reservists in obtaining medical assessments.

**Recommendation 24:**

That the Government of Canada provide an annual update to Parliament on

- (i) Steps it has taken to meet the recruitment target of 21,000 Army Reservists;
- (ii) Progress made to strengthen the Army, Navy and Air Force Reserves;
- (iii) How successful the Minister of National Defence is in expanding opportunities for college and university students to join the Reserves; and
- (iv) Progress made in implementing the recommendations made by the Auditor General in relation to the Reserves.

**Recommendation 25:**

That the Government of Canada establish an armed Constabulary Coast Guard with the powers to enforce the environmental, transportation, and fishing regulations, as well as criminal code offences.

**Recommendation 26:**

That the Government of Canada take steps to improve Search and Rescue response times in the Far North by:

- (i) expediting the replacement of the CC-138 Twin Otter;
- (ii) examining the option of activating the VH-71 helicopters currently in storage to enhance Search and Rescue;
- (iii) expanding the existing partnership with the Civil Air Search and Rescue Association to provide more robust Search and Rescue options in the Arctic by local contractors; and
- (iv) replacing the current Aurora patrol aircraft fleet with a new patrol aircraft by 2030.

**Recommendation 27:**

That the Government of Canada move forward with a plan to increase the size of the Rangers to 7000, increase the frequency of the training available to Rangers and seek ways to expand the Junior Ranger and Cadet programs in the North, and that the government report to Parliament in 180 days on progress made.

**Recommendation 28:**

That the Government of Canada move forward to provide Rangers with coastal capabilities to support search and rescue operations.

**Recommendation 29:**

That the Government of Canada establish a Reserve Regiment based in Yukon.

**Recommendation 30:**

That the Government of Canada ensure that the Canadian Armed Forces adhere to its obligations under the Employment Equity Act by identifying and eliminating barriers to the appropriate representation of women, indigenous populations and visible minorities; and that it provide to Parliament a progress report on the work of the Recruiting and Diversity Task Force before 31 December 2017.

# INVESTING IN THE DEFENCE OF CANADA THROUGH THE CANADIAN ARMED FORCES

---

## INTRODUCTION

Part 1 of this report addressed the strategic challenges which confront Canada and proposed recommendations related to funding, forging a national cross-party consensus on military priorities and investments and a plan to fix the broken system of military procurement. This report provides the Committee's recommendations as it relates to the members of the Canadian Armed Forces, and military capabilities that will be needed to defend our national and international interests.

Three specific areas on which the committee was not able to hear sufficient testimony were: Special Operation Forces; Diversity; and, Sexual Harassment in the Military. These are examined in the later part of the report. It is the intention of the committee to return specifically to these areas in future reports during this parliament.

## OVERVIEW

The Committee firmly believes that the extent to which Canada is successful in carrying out its primary defence responsibilities – especially during this time of complex security threats – is contingent upon the support it affords to its military personnel. This support ranges from providing the equipment necessary to perform the tasks the government requires of them, to attracting and recruiting adequate numbers of personnel, to ensuring that its women and men in uniform have access to the services and support they need.

The following section highlights the range of issues brought forward by witnesses as areas of concern deserving attention within Canada's new defence policy. The government's new directive<sup>1</sup>, that Canada must be able to meet both NORAD and NATO commitments simultaneously creates a number of urgent capability gaps for the Royal Canadian Air Force, Royal Canadian Navy and Canadian Army. Additionally, the Canadian Armed Forces must evaluate and confirm its ability to be interoperable with the US Armed Forces given our NORAD and NATO commitments

The Committee asked some witnesses to share their opinions about existing or potential "capability gaps" within the Canadian Armed Forces. As Lieutenant-General (Retired) André Deschamps, Honorary National President of the Air Force Association of Canada explained "[a]t this time, there are capability gaps. In other words, we don't have equipment, period, or we have equipment and staff, but not enough to properly support the operations. We're fragile. **The capability gap can mean either a complete lack of capabilities or a low level of capabilities as a result of the resources allocated.**"<sup>2</sup>

---

<sup>1</sup> SECD, [Evidence](#), 28 November 2016, Lieutenant-General Michael Hood.

<sup>2</sup> SECD, [Evidence](#), 14 November 2016, Lieutenant-General (Retired) André Deschamps.



## **SUPPORTING THE MILITARY FAMILY**

Every organization with an interest in the Canadian Armed Forces agrees that the care of military families must be a core undertaking, not only by the Department of National Defence, but also for the whole of Government. Families are the core of the Canadian Armed Forces. They must be respected, nurtured, listened to and supported. Too often, we forget the heavy burden placed on moms, dads, spouses and the children of military families, as a result of deployment, regular moves, challenging housing situations and lack of access to jobs. Too often we forget that they are the first responders to those wounded soldiers, or in some cases, the recipients of the stress, abuse and manifestations of PTSD.

It is not only important that we salute the families of those who are serving, but we must make it a priority to ensure they are well cared for and provide the support needed in difficult circumstances. This must be a priority not only to maintain high military morale, and hence military effectiveness, but also based on the moral obligation that the nation has to its serving women and men.

Numerous bodies including the Office of the Auditor General, the Canadian Armed Forces Ombudsman and parliamentary committees have made multiple recommendations over the past several years on enhancing support for Canada's military families, improving military housing and caring for Canadian Armed Forces members who are ill and injured.

The Committee is fully convinced that there is a great deal of goodwill to act on these recommendations. However, as Mr. Gary Walbourne, the Canadian Armed Forces Ombudsman pointed out in his recent submission on the Government's Defence Policy Review, "although work has been done over the past three years [to address recommendations made in his own November 2013 report on military families] ... there remains much to do". "What is concerning" he wrote, "is the pace at which [work] is being done".

These bureaucratic barriers, where they exist, must be overcome.

Where the Department of National Defence has agreed to a recommendation made by the Auditor General, the Canadian Armed Forces Ombudsman or another body, but has yet to fully act on it, the Committee urges the Government to devote the attention that is needed in order to ensure that such gaps are immediately addressed. The Committee intends to follow progress closely.

Additionally, the committee reiterates a recommendation from its 2002 report related to uniforms, that troops, should be appropriately outfitted especially combat clothing for female members of the military.

## KEEPING THE TEAM TOGETHER

A great deal of evidence to suggest that Canadian Armed Forces recruitment shortfalls must be addressed as a matter of priority. It heard about a range of initiatives being undertaken to respond to specific recruitment challenges such as those affecting the Reserves, the Army, the Navy, and the Air Force.

The Committee is concerned with Brigadier-General Giguère's assessment that, we lose military personnel "because they lose interest in what they are doing."<sup>3</sup> Major-General Juneau addressed efforts underway to improve retention within the Canadian Armed Forces:

While it is important to continue to grow the military's numbers, it is equally important to keep the members we already have. This is why the Canadian Army leadership is exploring ways to improve the retention of personnel in several ways. We want to provide more flexibility in career options, enhance career management and offer greater support to military families. The Military Personnel Command team is leading these initiatives as well.<sup>4</sup>

The Canadian Armed Forces is exploring ways to enhance its retention rate. However, it agrees with the Department of National Defence and Canadian Armed Forces Ombudsman, Gary Walbourne, who said there is no need for additional reviews or studies when it comes to ensuring the quality of life for the Defence community, as these have been completed without great effect. Rather, he argued that:

What we need now is leadership and the will to build a system that is indeed member-centric and fair to all. No matter what position or stance we take at home or abroad, a well-supported military force, including their families and our next generation of leaders, will be a factor in determining success. Our people should be our top priority, our true "no fail" mission.<sup>5</sup>

---

<sup>3</sup> SECD, [Evidence](#), 21 September 2016, Brig.-Gen. (Ret'd) Richard Giguère.

<sup>4</sup> SECD, [Evidence](#), 28 November 2016, Major-General Christian Juneau.

<sup>5</sup> SECD, [Evidence](#), 20 September 2016, Ombudsman for the Department of National Defence and the Canadian Forces Gary Walbourne.

## INCREASING COOPERATION WITHIN NORAD

---

Witnesses addressed the state of readiness of the Royal Canadian Air Force, warning the Committee that some aspects of the fleet require urgent attention. Readiness in the air domain, as explained by Lieutenant-General Michael Hood, Commander of the Royal Canadian Air Force, “is about being able to deliver on our government's domestic and international defence commitments in a highly complex and ever-changing environment. Readiness includes our people, our aircraft and systems, and the other resources that, together, provide the air power capabilities the government requires to serve Canadians and Canadian interests.”<sup>6</sup> As the air component of the Canadian Armed Forces, the Royal Canadian Air Force provides airpower to support the military’s three key defence roles: defending Canada by delivering excellence at home, defending North America by being a strong, reliable and credible defence partner with the United States in the defence of the continent, and contributing to international peace and security by projecting leadership abroad.<sup>7</sup>

The Royal Canadian Air Force’s critical missions are supported by 12,000 Regular Force, 2,000 Reserve Force, and 2,200 civilian personnel, including those Air Force technicians and aircrew that support Canada’s extensive search and rescue responsibilities.<sup>8</sup> The Royal Canadian Air Force is also tasked with conducting surveillance and reconnaissance crucial to protecting Canadian sovereignty across the vast land mass of its territory.

According to Lieutenant-General Beare:

Domain awareness is delivering and it's an effort that is civilian and military. It's space-based, airborne and surface. It's also bilateral, bi-national, with the Americans ... Our response to the requirements for safety and security at sea are delivered by the military, civilians, coast guard and others. It is working and is delivering. You see it in airborne maritime safety and security efforts routine.<sup>9</sup>

## SHARED CONCERNS ABOUT DOMAIN AWARENESS

In a 2006 report for the US Army College, Commander James Minta wrote a report titled “*Maritime Domain Awareness: Western Hemisphere Imperative*”<sup>10</sup> and highlighted the key US concern. He stated that: “There are few areas of greater strategic importance than the maritime domain” and reiterated the reality that ““The [US] National Strategy for Maritime Security states

---

<sup>6</sup> House of Commons Standing Committee on National Defence, [Evidence](#), 14 April 2016, Lieutenant-General Michael Hood.

<sup>7</sup> <http://www.rcaf-arc.forces.gc.ca/en/index.page>

<sup>8</sup> Ibid.

<sup>9</sup> <http://www.parl.gc.ca/content/hoc/Committee/412/NDDN/Evidence/EV6597135/NDDNEV25-E.PDF>

<sup>10</sup> [www.dtic.mil/dtic/tr/fulltext/u2/a478411.pdf](http://www.dtic.mil/dtic/tr/fulltext/u2/a478411.pdf)

terrorists will most likely transport weapons of mass destruction into the United States via the maritime domain.”

Minta argued that:

In order to protect the United States from threats in the maritime domain, whether from a nation-state or transnational organization, the National Plan to Achieve Maritime Domain Awareness lists three strategic goals:

- Enhance transparency in the maritime domain to detect, deter, and defeat threats as early and distant from U.S. interests as possible;
- Enable accurate, dynamic, and confident decisions and responses to the full spectrum of maritime threats; and
- Sustain the full application of the law to ensure freedom of navigation and the efficient flow of commerce.

He went on to note: “With over 94,000 miles of shoreline in the United States and the world’s oceans transporting over 80% of the global trade, America cannot go it alone when it comes to development of a secure maritime domain.”

To address this significant concern, he proposed, “The advancement of Canadian-U.S. Maritime Domain Awareness will greatly reduce the risks of a terrorist attack against the either country from the maritime domain, at least from the northern approaches to the two countries...”

Ensuring domain awareness of Canada’s aerospace and maritime approaches has become particularly pressing in light of resurgent Russian military activity close to Canadian airspace in the North - actions that Maj.-Gen. (Ret’d) Ferron referred to as “the real menace to Canadian sovereignty in the North.”<sup>11</sup>

Other witnesses expressed similar concerns regarding increased Russian aggression and military modernization.<sup>12</sup> These repeated checks by Russian aircraft for gaps in the coverage of our territory, and the amount of time it takes for us to intercept or respond to their presence affirm the need for a robust air force capable, as the government stated of responding to NORAD and NATO commitments simultaneously.

Put simply, Russia is testing to see if we respond; how long it takes for us to respond and with which equipment we respond. Canada must be prepared to ensure our sovereignty at all times, including against unwanted incursions in our air space and maritime approaches.

---

<sup>11</sup> SECD, [Evidence](#), 20 June 2016, Major-General (Ret’d) James R. Ferron.

<sup>12</sup> SECD, [Evidence](#), 14 November 2016, David Perry, SECD, [Evidence](#), 19 September 2016, Lieutenant-Colonel (Retired) David Last; SECD, [Evidence](#), Elinor Sloan.

Russian long-range aviation capabilities:

<b>Russian Air Force Long-Range Bomber Capabilities</b>	<b>In Service</b>
<b>Long-Range Aviation Command (Strategic Deterrent Force)</b>	<b>76</b>
Tu-160 Blackjack long-range strategic bombers	16
Tu-95 Bear long-range strategic bombers	60
<b>Other Bomber Units</b>	<b>63+</b>
Tu-22 Backfire long-range strategic bombers	63+
<b>Total</b>	<b>139+</b>

Source: Table prepared using data from IISS, *The Military Balance 2017*, pp. 211 and 217.

As discussed above, the defence of Canada is inherently linked to the defence of North America. This principle is reflected in the binational defence relationship between Canada and the United States, particularly through NORAD. Canada's participation in NORAD comes with both immense benefits and obligations.

## **INCREASE NORAD COOPERATION**

Presently, Canada fulfils only half of its obligation to NORAD, in that we must absent ourselves from the NORAD command structure when dealing with threats that are not aircraft, but rather, ballistic missiles. As noted in Part 1 of our report, Canada is fully engaged in all areas of NORAD when responding to an aircraft threat, but is absent when there is a missile or rocket threat. This political decision by successive governments undermines Canadian sovereignty and weakens our role in the NORAD partnership.

This refusal to accept the invitation by the United States to participate fully in NORAD is unacceptable and needs to be rectified. Today, NORAD "operates and maintains the Canadian portion of the north warning system, the radar chain in the north, and operates four forward-operating locations to support fighter operations in the Arctic."<sup>13</sup> The significant extent to which Canada and the United States work together in support of these defence and security responsibilities is dependent upon seamless interoperability, defined as "the ability to act together coherently, effectively and efficiently to achieve tactical, operational and strategic objectives."<sup>14</sup> This "is achieved through joint training, common operating procedures, and equipment compatibility."<sup>15</sup>

<sup>13</sup> House of Commons Standing Committee on National Defence, [Evidence](#), 14 April 2016, Lt.-Gen. Michael Hood.

<sup>14</sup> [http://navy-marine.forces.gc.ca/assets/NAVY\\_Internet/docs/en/analysis/rcn-leadmark-2050\\_march-2017.pdf](http://navy-marine.forces.gc.ca/assets/NAVY_Internet/docs/en/analysis/rcn-leadmark-2050_march-2017.pdf)

<sup>15</sup> BGen (Ret'd) Greg Matte, "[CF-18: Strategic Replacement](#)"

**Recommendation 1:**

To increase cooperation within NORAD, and to keep Canada and the United States safer, the Government of Canada must increase effectiveness within NORAD by actively protecting against ballistic missiles heading toward Canadian and American cities.

**Recommendation 2:**

Modernize our agreement with NORAD to take into consideration the need to increase maritime defences, domain awareness cooperation and cyber defence.

## STRENGTHENING THE AIR FORCE

The Royal Canadian Air Force Commander explained to the Committee that “[w]ith the speed of technological advancement of both our adversaries and our allies” it is imperative for the Air Force to strive for innovation, and as such, “[t]he RCAF is going through a time of great renewal” in order to meet the challenges of the next decade and beyond.<sup>16</sup>

Some examples of these renewal efforts include:

- the Chinook helicopter that recently became operational;
- the upgraded J-model Hercules;
- the fifth Globemaster;
- 14 Aurora long-range patrol aircraft capable of intelligence, surveillance and reconnaissance — ISR — that are undergoing major upgrades; and
- two helicopter air detachments of Cyclone helicopters expected by April 2018 with further detachments to follow as the Sea King fleet will retire in December 2018.<sup>17</sup>

CH-147F Chinook Helicopter  
15 based at Canadian Forces  
Base, Petawawa, Ontario



The CH-147F Chinook is an advanced, multi-mission, medium to heavy-lift helicopter. Its primary mission is the tactical transport of equipment and personnel during domestic or deployed operations.

Source: Royal Canadian Air Force

During the 2016 Fort McMurray forest wildfires, a CH-147F Chinook helicopter delivered 8,200 pounds of food, water, and other sundries to Fort McKay First Nation as part of the support efforts to battle the wildfires. This was the first time that the Canadian Forces operated a Chinook helicopter on a domestic humanitarian operation. The aircraft, from the Tactical Helicopter Squadron at 4th Canadian Division Support Base Petawawa, joined four CH-146 Griffon helicopters and one CC-130J Hercules aircraft supporting relief efforts in Alberta.<sup>18</sup>

<sup>16</sup> SECD, *Evidence*, 28 November 2016, Lt.-Gen. Michael Hood.

<sup>17</sup> *Ibid.*

<sup>18</sup> <http://ottawacitizen.com/news/national/defence-watch/chinook-helicopter-used-to-support-efforts-fighting-fort-mcmurray-wildfires>

The Chinooks' ability to operate in difficult conditions such as Afghanistan contributed significantly to the reduction in fatalities. Prior to their arrival, Canadians military personnel were compelled to drive through rugged, improvised explosive device (IED) filled terrain. Fatalities were significantly reduced once these helicopters were retrofitted and introduced into that theatre of operation. *These aircraft are able to provide disaster relief; safe transportation in conflict zones; evacuation of the wounded and are ideal in rugged conditions.*

Several witnesses agreed that the Royal Canadian Air Force should maintain a high-level of interoperability within NORAD to ensure the defence and security of Canada and North America.<sup>19</sup> Yet, it was brought to the attention of the Committee by the Honourable Peter Mackay, former Minister of National Defence that Canada risks “disconnecting from NORAD and our capabilities” if potential gaps in air force capabilities are not addressed, particularly regarding the replacement of Canada’s fighter aircraft.<sup>20</sup>

The Royal Canadian Air Force has maintained a very high level of operational tempo over the last decade both at home and abroad, explained Lt.-Gen. (Ret'd) André Deschamps. As such, the Air Force has undergone “... significant transformation efforts internally... Some capabilities have been reduced from an effectiveness perspective. Technology is advancing and equipment must be renewed. Fighter jets are a good example. They must be renewed. Some investments have been made in recent decades to upgrade them, but more investments are needed to make them ready to use, at best until the next decade. In other words, the capability is decreasing.”<sup>21</sup>

Maintaining a viable national fighter capability will also need to be supported by a renewed *Strategic Tanker Transport Capability*. According to the Department of National Defence, the \$500 million to \$1.5 billion project to acquire a replacement for the existing fleet of 5 CC-150 Polaris (Airbus A-310), will enhance “the existing fleet capability, including strategic airlift, air-to-air refueling and VIP transport after a potential life extension.

This capability is vitally important to the Royal Canadian Air Force allowing our fighter jets to become more agile, as they will not need to carry as much fuel, and can rely on a Canadian refuelling platforms being available while deployed domestically or internationally.

Lastly, the Committee is pleased that the replacement of the Sea King helicopter fleet with the Cyclone helicopter is moving forward. The Committee notes that while the Aurora patrol aircraft fleet has been modernized, a replacement will be required in around the 2030 timeframe. The Committee believes that the Government must make the replacement of the Aurora an essential component of its planned renewal of the Armed Force’s core capabilities.

---

<sup>19</sup> SECD, [Evidence](#), 13 June 2016, the Honourable Peter MacKay, SECD, [Evidence](#), 20 June 2016, Tony Battista and Vice-Admiral (Ret'd) Denis Rouleau; SECD, [Evidence](#), 14 November 2016, Lieutenant-General (Ret'd) André Deschamps; SECD, [Evidence](#), 19 September 2016, Jane Boulden.

<sup>20</sup> SECD, [Evidence](#), 13 June 2016, the Honourable Peter MacKay.

<sup>21</sup> SECD, [Evidence](#), 14 November 2016, Lieutenant- General (Ret'd) André Deschamps,



## REPLACING CANADA'S CF-18s

Recent government decisions have strained the Air Force's capacity to carry out key missions, the Committee heard. During his appearance, Lt.-Gen Hood informed the Committee that "[t]he government has announced a policy whereby the Royal Canadian Air Force is required to be able to simultaneously meet both our NORAD and our NATO commitments" and that "[t]here aren't enough aircraft to deliver those commitments simultaneously" with the present CF-18 fleet [of 77 fighter jets].<sup>22</sup>

When asked by the committee whether he was consulted in advance of the recent government decision to procure, through sole source, 18 new Super Hornets, Lt.-Gen. Hood: told the committee:

I provide air-force-specific advice to the Chief of the Defence Staff. That advice is done in private, as I'm sure you well understand. That advice is used in the formulation of government policy, but when the government comes out with a policy, it's the role of the Commander of the Royal Canadian Air Force, and the air force, to implement that policy.<sup>23</sup>

It should be standard practice that the heads of each command (Army, Royal Canadian Air Force and Royal Canadian Navy) are fully involved when decisions are taken that impact their ability to exercise their duties to protect Canada.

In order to meet these new capability requirements, the Government of Canada announced that "it is investing in the Royal Canadian Air Force and that we will grow to meet their policy direction regarding the availability of our fighter capability...through an open and transparent competition to replace the fighter fleet."<sup>24</sup> Meanwhile, the Committee was told, the government "will enter into discussion with the U.S. government and Boeing to augment our present CF-18 fleet.

According to the Government of Canada, [the Royal Canadian Air Force] will also be provided the additional resources required to continue to fly the CF-18, and a potential interim fleet, through to transition to the ultimate replacement aircraft."<sup>25</sup>

## PLATFORM IMPLICATIONS

Concerns about acquiring the Super Hornets as an interim solution are well founded. According to retired Brigadier-General Greg Matte, writing before this decision was taken in the Conference of Defence Institute Analysis "if Canada purchased the Super Hornet, we would likely be the only country in the world flying it beyond the 2030 timeframe. Inevitably, the long

---

<sup>22</sup> SECD, [Evidence](#), 28 November 2016, Lieutenant-General Michael Hood.

<sup>23</sup> Ibid

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

term costs of supporting the software, replacing worn out parts, and attempting to upgrade the aircraft against obsolescence will far outweigh any potential savings at the time of initial purchase given that we'll be on our own."<sup>26</sup>

David Perry said that, based on the Government of Canada industry questionnaire sent out in the summer of 2016 that specified interoperability and information sharing preferences for its new fighter jet, "[t]here's no question that the F-35 is going to be by far the most capable aircraft." However, he noted that additional priorities, including domestic economic benefit, will also have to be weighed.<sup>27</sup>

*These economic benefits were identified by the proponent, Lockheed Martin as part of Canada's continued participation in the Joint Strike Fighter Program.*

### **BENEFITS FROM F-35 JOINT STRIKE FIGHTER PROGRAM**

The Lockheed Martin industrial participation plan contains \$750 million in F-35 contracts with total production opportunities worth more than \$11 billion, not including sustainment work. Canadian industry participation includes:

- More than 110 Canadian companies have participated in the development and production of the F-35 Joint Strike Fighter
- More than 80 Canadian companies are working on this program today.
- According to projections based on the Statistics Canada model, the program will support more than 50,000 jobs throughout production
- It provides more than 30 years of aerospace industrial work and creates enduring industrial relationships throughout the world.

The financial benefits to Canadian aerospace and defence companies are projected to far exceed Canada's cost of procuring the F-35 Lightning II. Industrial participation opportunities are estimated at nearly \$12 billion. To date the program has identified nearly 200 projects with more than \$750 million already contracted – more than double Canada's current investment in the F-35 program.

Source: <http://www.lockheedmartin.ca/ca/what-we-do/aerospace-defence/aircraft.html>

While Lt.-Gen. Hood reinforced that the Royal Canadian Air Force is still in the process of evaluating their needs in terms of acquiring a new fighter aircraft, "[w]hat matters most is that the aircraft of the Canadian Armed Forces be interoperable."<sup>28</sup>

The committee notes with concern the issues raised by 13 former Royal Canadian Air Generals about the process for acquiring a new fighter jet fleet. The Generals specifically questioned the "capability gap" raised by the government as the basis for their interim plan and went on to raise technical concerns about the impact of this decision and the need for "new flight simulators, logistic support and maintenance organizations specific to the Super Hornet." They also noted

<sup>26</sup> [https://www.cdainstitute.ca/images/Analysis/Matte\\_Analysis\\_October\\_2016.pdf](https://www.cdainstitute.ca/images/Analysis/Matte_Analysis_October_2016.pdf)

<sup>27</sup> SECD, [Evidence](#), 14 November 2016, David Perry.

<sup>28</sup> SECD, [Evidence](#), 28 November 2016, Lt.-Gen. Michael Hood.

that this will be an “expensive proposition, with cost estimates ranging from \$5-\$7 billion” and urged the government to “seek a better way of keeping the RCAF operationally effective until its fleet of CF-18s is replaced with a modern fighter.” This could be accomplished, they suggests, by purchasing legacy Hornets, similar to the CF-18s, from Canada’s partners such as the United States and Australia as replace their older Hornets with F-35s. A copy of the letter is appended to this report for reference in Appendix A.

**The government’s decision not to proceed with the procurement process for a new fighter fleet and purchasing an unnecessary and costly interim capability will leave the taxpayers with a significant burden and the Royal Canadian Air Force with a duplicate support system that will cost billions of dollars in equipment, training, and technical know-how. This burden would be eliminated if the government were to move forward with the selection of the F-35s.**

**While the government has not confirmed the number of fighter jets it intends to acquire to be able to simultaneously meet requirements of NORAD and NATO, there is an open question as to whether Canada will again require three squadrons, as it had in the past, with 138 fighter jets.<sup>29</sup>**

The committee is concerned with the need to maintain a viable national fighter capability, and the five years it will take the government to identify the next fighter jet after 25 years of studying the F35s.

It recommends:

**Recommendation 3:**

That the Government of Canada immediately commence a competition to replace the fighter jets and make a decision by June 30, 2018; and,

That the Government of Canada cancel the interim fighter jet replacement plan.

**It will be the committee’s intention to hold hearings in 2017 and 2018 on this procurement process to ensure taxpayers are protected and the best aircraft for Canada is acquired.**

---

<sup>29</sup> Ibid

## ESSENTIAL INVESTMENT IN THE NORTH WARNING SYSTEM

The Committee agrees with Mr. Perry's recommendation that "the North Warning System must be upgraded" in order to counter Russian long-range patrol aircraft and their newest submarines.<sup>30</sup> Canada's sovereignty in the High Arctic is integral to the defence of North America, and is viewed by our American ally as a key NORAD responsibility.

Lt.-Gen. (Ret'd) Deschamps reiterated that "the renewal of the early warning system is front of mind for NORAD commanders."<sup>31</sup> He further discussed the technological challenges of this undertaking:

it is technology that will challenge us quite a bit, so some innovation is going to be required, and also a layering of early warning systems. Right now we have a certain amount of belt, if you will, and a tripwire system. New technologies will challenge that. You will need to have more in-depth, longer-range detection. That is the big issue; low-observable systems are a significant challenge.<sup>32</sup>

The renewal of the current North Warning System is urgently required. The current system was built in the 1980s and its technology is dated. At the same time, the capabilities of Russia's long-range aviation forces continue to improve and NORAD has no choice but to respond to this challenge. While the cost of replacing the North Warning System will be high, Canada should, in partnership with the United States, expedite the renewal of the current system to integrate 21<sup>st</sup> century technologies that are able to respond to the potential threats of this century.

At present, the government has identified the need and states that it intends to award a contract for more than \$1.5 billion by 2024 for the project which will "provide operational capabilities to ensure the security of Canadian citizens and help exercise Canada's sovereignty as per the bi-national NORAD agreement."<sup>33</sup> This essential investment will help Canada fulfill its NORAD obligations.

The committee supports this idea, subject to a study that reviews the best options available to meet this capability, specifically with relation to modern satellites and Unmanned Ariel Vehicles (UAVs).

---

<sup>30</sup> SECD, [Evidence](#), 14 November 2016, David Perry.

<sup>31</sup> SECD, [Evidence](#), Lt.-Gen. (Ret'd) André Deschamps.

<sup>32</sup> Ibid.

<sup>33</sup> <http://www.forces.gc.ca/en/business-defence-acquisition-guide-2016/aerospace-systems-960.page>

#### **Recommendation 4:**

That the Government of Canada prioritize requirements related to the defence of Canada, the Arctic and North America, including the renewal of the North Warning System in conjunction with the United States

#### **UPGRADING THE HELICOPTER FLEET (CORMORANTS AND GRIFFONS)**

While Commander Hood reiterated that “[t]here's not a gap anywhere that I would suggest we either don't have plans for or that there aren't going to be plans developed to address” he did indicate that there were “a couple of fleets that we haven't nailed down our long-term vision on.”<sup>34</sup> He pointed to the Air Force Cormorant and Griffon search and rescue helicopter fleets in this regard, noting that they will require modernization investments to remain relevant.

On the Cormorant helicopters, Brig.-Gen. Michel Lalumière, Director General of Air Force Development, specified that the Royal Canadian Air Force is looking to update the search and rescue helicopter fleet to 2040, and that the project is currently in the options analysis phase.<sup>35</sup>



The Defence Acquisition Guide notes that the \$500m to \$1.5 billion project “will determine the most appropriate option to extend existing capability by assessing future supportability issues of the current CH149 Cormorant with respect to avionics, communications, ice protection, corrosion management and patient treatment area or by augmenting current capability by another means. Search and rescue capabilities are expected to be enhanced with the introduction of an electro-optic and an infra-red search capability.”<sup>36</sup>

---

<sup>34</sup> Ibid.

<sup>35</sup> SECD, [Evidence](#), 28 November 2016, Brig.-Gen. Michel Lalumière.

<sup>36</sup> <http://www.forces.gc.ca/en/business-defence-acquisition-guide-2016/aerospace-systems-309.page>

<p><b>CH-149 CORMORANT HELICOPTERS</b></p> <ul style="list-style-type: none"> <li>• 14 based at 9 Wing Gander, NL;</li> <li>• 14 Wing Greenwood, NS;</li> <li>• 19 Wing Comox, BC</li> </ul> 	<p>Modified from the military specifications of the European EH-101 medium-lift military transport helicopter, the CH-149 includes search-and-rescue-specific equipment and physical characteristics and performance requirements to meet Canada's SAR responsibilities.</p>
<p><b>CH-146 GRIFFON</b> 85 based at Bagotville, QC Borden, ON; Cold Lake, AB, Edmonton, AB; Gagetown, NB; Goose Bay, NL; Petawawa, ON; St. Hubert, QC; Trenton, ON; Valcartier, QC</p> 	<p>The CH-146 Griffon is a Utility Transport Tactical Helicopter (UTTH) used primarily for tactical transport of troops and material.</p>
<p>Source: Royal Canadian Air Force</p>	

In addition to upgrading the cormorants, the government has identified the fleet of utility helicopters, the CH-146 Griffons for replacement at a cost of over \$1.5 billion.<sup>37</sup> While the government is seeking a replacement for the Griffons, the military has also identified the need for a life extension at a cost of more than \$1.5 billion.<sup>38</sup>


It is worth noting that the Griffon was a civilian helicopter built outside of Montreal, Quebec and then converted for military use. It was deemed to be ineffective to support significant military needs, especially during deployment in Afghanistan.

<sup>37</sup> <http://www.forces.gc.ca/en/business-defence-acquisition-guide-2016/aerospace-systems-913.page>

<sup>38</sup> Ibid.

There is a need to ensure that there is a non-civilian replacement for the Griffons, as it is essential that a new fleet of helicopter can meet the requirements for the Canadian Armed Forces. Specifically, an aircraft with more lift capacity and the ability to carry armament and supplies as needed. Attack helicopters are also needed to effectively protect our Chinook fleet, while on deployment, as well as soldiers during combat search and rescue.

It is worth noting that during their recent peace support operations in Mali, the Dutch relied on attack helicopters, a capability Canada currently does not possess.

<b>CH-147F CHINOOK HELICOPTER</b> 15 based at Canadian Forces Base Petawawa, Ontario	The CH-147F Chinook is an advanced, multi-mission, medium to heavy-lift helicopter. Its primary mission is the tactical transport of equipment and personnel during domestic or deployed operations.
	
Source: Royal Canadian Air Force	

The government should consider a plan to keep 40 Griffons in place, and add to our helicopter fleet 24 new attack helicopters, one to protect each Chinook, while on deployment.

The Committee notes that a fleet of nine presidential Cormorants VH-71 helicopters (a sister helicopter of the Cormorant) are stored at CFB Shearwater along with a very large supply of spare parts. For some time there have been proposals under consideration to potentially activate this fleet in order to expand numbers of search and rescue rotary-wing assets.

The fleet of VH-71s should be modified to match the current capacity of the search and rescue Cormorants and temporarily moved to the East and West Coasts to provide additional support for search and rescue while the CH-149 are systemically upgraded. Eventually, the VH 71 should be stationed at CFB Trenton to provide support for search and rescue operations, after the mid-life refit of the Cormorants (CH-149).

**Recommendation 5:**

That the Government of Canada 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 during combat search and rescue.

**Recommendation 6:**

That the Government of Canada upgrade the Cormorant (VH-71) presidential fleet of helicopters and temporarily station them on each coast to support search and rescue while the Cormorants (CH-149) undergo a mid-life upgrade.

**ADOPT AND FUND AN INTEGRATED AIR DEFENCE SYSTEM**

Canada must adopt an integrated system-of-systems approach to the renewal of its air defence capabilities. Fighter aircraft will be ineffective unless supported by effective ground and air-based radar systems. Likewise, in order to effectively protect all parts of North America and maximize their time in the air, fighters must also be supported by a modern and versatile fleet of air refuelling tanker aircraft. Currently, just two of the RCAF's fleet of five CC-150 Polaris aircraft are equipped for tanker operations and these aircraft are already some twenty-five years old. Similar challenges related to age are faced by the four CC-130H aircraft that are assigned to act as tactical tanker aircraft.

These aircraft, along with the CC-130s contribute significantly to Canada's Air Force operations and will need to be upgraded or replaced in the coming years. This will be at a significant cost. The government must begin to make the necessary investments that will be required.

**CC-150 POLARIS (AIRBUS A-310)**

5 based at Trenton, ON





The CC-150 Polaris (Airbus A-310) is a multi-purpose, twin-engine, long-range jet aircraft that can be converted for passenger, freight or medical transport and air-to-air refuelling (or any combination of these configurations). It can reach a speed of up to Mach 0.84 (1029 km/h) carrying a load of up to 32,000 kilograms (70,560 pounds). Passenger loads range from 28 to 194 people, depending on the particular aircraft tail number and configuration.

Source: Royal Canadian Air Force

**Recommendation 7:**

That the Government of Canada prioritize the replacement of the Royal Canadian Air Force's current fleet of air refuelling tankers.



<p><b>CC-177 GLOBEMASTER III</b> 5 based at Trenton, ON</p> 	<p>To illustrate the power of these aircraft, one CC-177 can haul three CH-146 Griffon helicopters with refuelling tanks, or one Leopard 2 tank, or as many as 102 paratroopers. But perhaps most useful of all, the CC-177's ability to fly long distances and land in remote airfields makes it a premier transporter for military, humanitarian and peacekeeping missions.</p>
<p><b>CC 130J HERCULES</b> 17 based at 8 Wing Trenton, ON</p> 	<p>It is used for troop transport, tactical airlift (both palletized and vehicular cargo) and aircrew training and qualification. It is designed to operate from rudimentary airstrips in an active theatre of operations. The CC-130J has the same look as its predecessors, but in fact is a greatly improved airplane. The new "HerCs" fly faster, higher, and farther, carrying heavier loads while burning less fuel. They deliver cutting edge technology to provide the Canadian Forces with a cost-effective, operationally-proven tactical airlift capability.</p>
<p>Source: Royal Canadian Air Force</p>	

Overall, the testimony highlighted that interoperability should continue to be an important consideration for future Air Force investments. Whatever path the new defence policy sets for the Royal Canadian Air Force, it is the belief of this Committee that a highly interoperable and effective air force will require significantly increased resources.

The three projects identified above are valued at well over \$4.5 billion and represent key areas for investment as the government grows defence spending to 2% of GDP, from the current level of 0.88%, as noted in Part 1 of our Report (Military Underfunded: The talk must match the walk).

Taking note of these requirements as well as the age of the North Warning System and the tanker fleet, the Committee recommends:

**Recommendation 8:**

That the Government of Canada prioritize requirements related to the defence of Canada, the Arctic and North America, by increasing the size of the fighter jet fleet to 120 to defend Canada and simultaneously meet NORAD and NATO commitments.

## UNMANNED AERIAL VEHICLES (UAVS)

The failure to acquire armed and unarmed Unmanned Aerial Vehicles under the Joint Unmanned Surveillance and Target Acquisition System program (JUSTAS), was another asset-related concern for the Royal Canadian Air Force raised by witnesses. According to Lt.Gen.(Ret'd) Deschamps, “technology keeps progressing, and the search for the perfect fit for Canada has caused many delays in getting the program moving. We would suggest that the defence policy review needs to address this with some clarity and provide the strategic space for a mix of possible solutions. No one platform can cover all our needs.”<sup>39</sup> Mr. Perry agreed with this assessment, adding that “[w]e should be looking at a mix of space-based assets and different piloted and unpiloted airborne platforms.”<sup>40</sup> This is most effectively done by unmanned aerial vehicles (drones), satellites and manned aircrafts.

Witnesses anticipated that the Defence Policy Review will shape Canada’s unmanned aerial vehicles program. Examining Canada’s domestic requirements, one witness suggested that a robust unmanned aerial vehicles platform should be able to “travel vast distances, operate autonomously, do the business of collecting intelligence surveillance and bring that information back to those who need it.”<sup>41</sup>

The Royal Canadian Air Force’s 2014 strategy paper highlights the challenge facing the Air Force.<sup>42</sup>

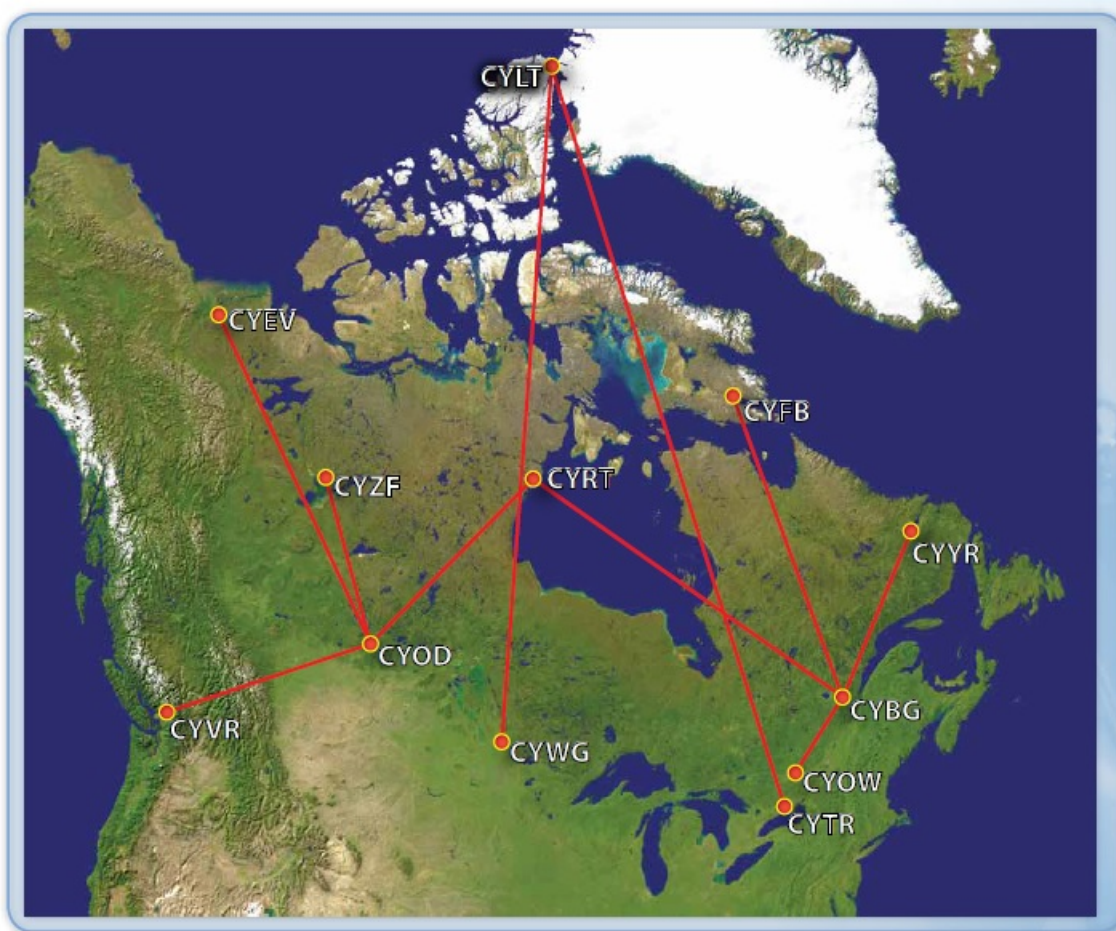
Defending Canada in the current strategic and political environment requires capabilities that allow surveillance and control of the entirety of the Canadian airspace, coast and maritime approaches. Securing both Canadian and North American borders, as well as ensuring the security of expeditionary forces, requires comprehensive and sustained intelligence, surveillance and reconnaissance (ISR) capabilities to achieve situational awareness. Canadian and North American security also requires an Air Force that has the power and reach (see Figures 3 and 4) to allow Canada to maintain its commitment to the shared defence of the continent and its ability to defend Canadian interests and citizens.  
Source: RCAF 2014 Strategy Paper

<sup>39</sup> SECD, [Evidence](#), Lt.-Gen. (Ret'd) André Deschamps.

<sup>40</sup> SECD, [Evidence](#), 14 November 2016, David Perry.

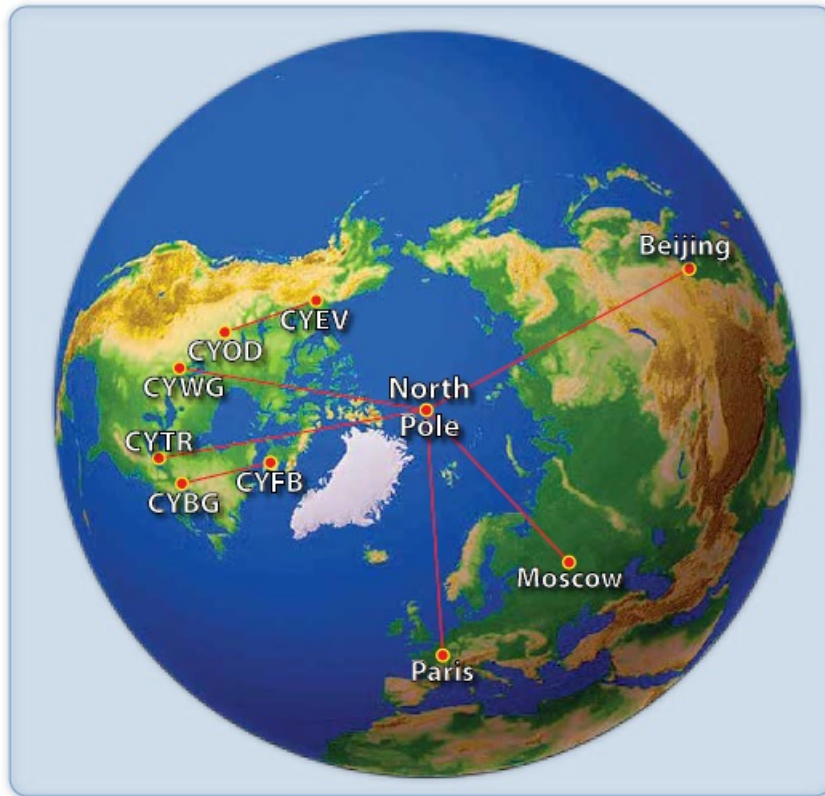
<sup>41</sup> SECD, [Evidence](#), Lt.-Gen. (Ret'd) André Deschamps.

<sup>42</sup> [http://publications.gc.ca/collections/collection\\_2014/mdn-dnd/D2-300-1-2014-eng.pdf](http://publications.gc.ca/collections/collection_2014/mdn-dnd/D2-300-1-2014-eng.pdf)



From	To	Distance mi (km)	From	To	Distance mi (km)
Cold Lake CYOD	Inuvik CYEV	1220 (1963)	Bagotville CYBG	Rankin Inlet CYRT	1290 (2076)
Cold Lake CYOD	Rankin Inlet CYRT	870 (1400)	Bagotville CYBG	Iqaluit CYFB	1070 (1722)
Cold Lake CYOD	Vancouver CYVR	660 (1062)	Bagotville CYBG	Goose Bay CYR	580 (933)
Cold Lake CYOD	Yellowknife CYZF	580 (933)	Bagotville CYBG	Ottawa CYOW	305 (491)
Winnipeg CYWG	CFS Alert CYLT	2370 (3814)	Trenton CYTR	CFS Alert CYLT	2680 (4313)

Figure 3. Domestic Airpower Challenges



From	To	Distance mi (km)	From	To	Distance mi (km)
Cold Lake CYOD	Inuvik CYEV	1220 (1963)	Paris	North Pole	2840 (4571)
Winnipeg CYWG	North Pole	2780 (4474)	Moscow	North Pole	2390 (3846)
Trenton CYTR	North Pole	3180 (5118)	Beijing	North Pole	3460 (5568)
Bagotville CYBG	Iqualuit CYFB	1070 (1722)			

**Figure 4. A Different Airpower Perspective**

UAVs are important as they are able to stay in the air longer than most aircraft, at a fraction of the cost, and they do not put lives at risk. They are valuable to the Army, allowing them to look over hills and behind buildings at no risk to the troops. They are valuable to the Navy by extending out the geometrical awareness of ships by letting captains know who else is sailing nearby. UAVs could also be used to deliver sonar buoys to spot lurking submarines.

Canada’s size is a defence and security challenge in and of itself. The comprehensive surveillance and control of such large swaths of unpopulated territory with a lengthy coastline and vast maritime approaches are something that can be best exercised, with any degree of persistence, from air and space rather than from the ground.

To perform this task effectively will require a “system-of-systems” approach, integrating satellite surveillance, manned systems and unmanned assets. With respect to unmanned systems, both

High-Altitude and Medium-Altitude systems provide advantages. While High-Altitude Long-Endurance (HALE) systems are best at monitoring wide swaths of territory on a single mission, Medium-Altitude Long-Endurance Systems (MALE) are able to provide an armed capability to support Canadian Armed Forces operations abroad.

The Joint Unmanned Surveillance and Target Acquisition System program envisages providing Canada with a strategic UAV capability, although no decision has been made to acquire these capabilities. Canada must proceed with acquiring UAV capacity, armed and unarmed, to ensure effective surveillance, to contribute to the defence of Canada, and to support international military operations.

The delay in acquiring a fleet of unmanned aerial vehicles to support ongoing operational needs of the Canadian Armed Forces in Canada should be addressed, including for search and rescue, as well as on international operations such as in Iraq/Syria and for the possible deployment on United Nations missions in conflict zones in Africa.

The Committee therefore recommends:

**Recommendation 9:**

That the Government of Canada

- (i) expedite the acquisition of the unmanned aerial vehicles fleet which includes sufficient options towards meeting the individual needs of the three Services (Army, Air Force and Navy) before the end of 2018;
- (ii) acquire multi-purpose systems for the effective surveillance of Canada's entire territory while also delivering an armed capability to support Canadian Armed Forces operations.

## **AIR FORCE RECRUITMENT AND TRAINING**

Recruitment and training were two additional issues raised concerning the Royal Canadian Air Force. When specifically asked about the types of resources the Air Force needed in terms of a fighter jet, Lt.-Gen. Hood responded: "I need more personnel, since I already have a fleet of 77 CF-18s to manage. I need more technicians and pilots...certainly I will need more people, and I will need more funding to deliver on the additional flight hours required for an interim fleet."<sup>43</sup> It was also noted that there are certain skills and trades within the Air Force that are not at the levels the Air Force would like them to be. "We've got numbers as low as 87 per cent [of the target manned], and those are the areas we tend to look to."<sup>44</sup> There needs to be a culture change to retain experience technicians and pilots, given the incentives offered by the private sector.

---

<sup>43</sup> SECD, [Evidence](#), 28 November 2016, Lt.-Gen. Michael Hood.

<sup>44</sup> Ibid.

While the Royal Canadian Air Force was the first service to open all trades to women, like other services within the Canadian Armed Forces, it has struggled to increase the number of recruits represented by women, indigenous, and visible minorities.

At present, 8.9% of Royal Canadian Air Force personnel are women, though Commander Hood reassured the Committee that the Air Force is working towards meeting the target of 25% in ten years.<sup>45</sup> **This level of female participation in the air force is unacceptable.**

To achieve the goal of retaining experienced pilots and technicians, and also to attract and retain more female members, the committee recommends:

**Recommendation 10:**

That the Government of Canada implement a new model of pay for individuals with specialized skills which are in demand, and that attractive bonuses be offered to recruit and retain these individuals.

**Recommendation 11:**

That the Government of Canada direct Air Force Commanders to prepare a short-, medium- and long-term strategic plan to increase the participation of women in the armed forces.

---

<sup>45</sup> Ibid.

## STRENGTHEN THE ROYAL CANADIAN NAVY

---

The Committee received testimony on the issue of naval readiness and the state of the Royal Canadian Navy. All witnesses who appeared on that topic told the Committee that Canada should have a strong navy to protect its sovereignty and interests around the world in the coming years.

Navy Captain (Retired) Harry Harsch, the Navy League of Canada's Vice President of Maritime Affairs, explained that Canada is a "maritime nation." Not only is it bounded by three oceans (Arctic, Atlantic and Pacific), it possesses the world's largest coastline and depends enormously on the oceans for trade.<sup>46</sup> As such, he maintained that Canada needs "a balanced, multipurpose and combat capable navy to protect Canadian sovereignty and interests whether for domestic situations, forward-deployed operations or the plethora of contingency operations we find ourselves in today."<sup>47</sup> The successful terrorist attack on the United States on September 11, 2001, has prompted the need for greater control of all approaches to North America, whether by air or sea. This prompted the establishment of the Maritime Security Operations Centres (MSOC) in Victoria, and Halifax. A third MSOC is based in Niagara Falls region and managed by the RCMP. These MSOCs collect and analyze intelligence on the Canadian waterways including the St. Lawrence Seaway, Great Lakes and the Coasts. Additionally, the adoption of the United Nations Convention for the Sea (UNCLOS) established rights over significant ocean territory which must be exercised to maintain national sovereignty.

The Royal Canadian Navy's Leadmark 2050 strategy document notes that the navy will be called upon to:

- **Protect** Canada by exercising Canadian sovereignty in our home waters, securing the maritime approaches to North America and contributing to maritime peace and good order abroad.
- **Prevent** conflict by strengthening partnerships and deploying forward to promote global stability and deter conflict.
- **Project** Canadian power to shape and, when necessary, restore order to the global system<sup>48</sup>

Witnesses pointed to the rapid changes under way to the global maritime order, as countries around the world make growing investments in their naval forces, particularly in the Indo-Asia-Pacific region. As a partner in NORAD and a member of the NATO alliance, the Royal Canadian Navy has a responsibility to be able to respond to issues on the Atlantic, Pacific and in the

---

<sup>46</sup> SECD, [Evidence](#), 19 September 2016, Navy Captain (Retired) Harry Harsch.

<sup>47</sup> Ibid.

<sup>48</sup> [http://navy-marine.forces.gc.ca/assets/NAVY\\_Internet/docs/en/analysis/rcn-leadmark-2050\\_march-2017.pdf](http://navy-marine.forces.gc.ca/assets/NAVY_Internet/docs/en/analysis/rcn-leadmark-2050_march-2017.pdf)

Arctic, but also in support of NATO obligation simultaneously.<sup>49</sup> This will require significant and urgent investments, as well as additional platforms especially when one considers the active naval expansions taking place around the world in response to growing trade on the seas and the rise of China which is seeking to assert greater dominance in the South and East China Sea and sparking potential conflicts.

China's rise as a naval power is guided by its desire to project power and obtain rights, sometime by brute force, control of economic zones with significant interests such as natural gas fields, shipping lanes and fishing rights. The expansionism was checked by a recent ruling in The Hague under the UN Convention of the Laws of the Sea in relation to a request made by the Philippines in relation to artificial islands built by China. Canada's Asia Pacific Foundation described this significant ruling as follows:

The ruling was a virtual clean sweep for Manila. On no issue did the tribunal come down in favour of China. On only one did it decline to make a ruling: on the standoff at Second Thomas Shoal, where the Chinese Coast Guard actively tries to prevent the resupply of the grounded Philippine military ship, the BRP Sierra Madre.

Two findings stand out. The first is that the nine-dash line has no basis in law. The South China Sea is an international waterway, and littoral states' maritime jurisdictions are limited entirely to what UNCLOS says about 12-nautical-mile territorial seas, contiguous zones, EEZs, and continental shelf rights.

Second, the tribunal ruled that according to UNCLOS provisions, there are no "islands" in the South China Sea, only "rocks." This is important because a legal island is entitled to a 200-nautical-mile EEZ in addition to a 12-nautical-mile territorial sea. If the tribunal had declared any of the disputed features in the South China Sea to be islands, this would have raised the stakes of the territorial disputes in the region dramatically. But because the tribunal ruled that there are only rocks (entitled only to a 12-nautical-mile territorial sea) and LTEs or permanently-submerged shoals (which carry no maritime entitlements), littoral countries' EEZs can only be projected from their metropolitan coastlines.<sup>50</sup>

Source: Asia Pacific Foundation (Vancouver, BC)

While this ruling was clear, China has rejected it and continues to stake its claims in the region, upsetting Vietnam, Japan, Taiwan, the Philippines and other nations. At the same time, the Chinese People's Liberation Army Navy is embarked on a major modernization program which positions it to support more aggressive policies in regional waters such as the South and East China Seas.

<sup>49</sup> SECD, *Evidence*, 28 November 2016, Lieutenant-General Michael Hood.

<sup>50</sup> <https://www.asiapacific.ca/canada-asia-agenda/hagues-south-china-sea-ruling-implications-east-asian>



## Chinese People's Liberation Army Navy (PLAN) Capabilities and Expansion Plans<sup>51</sup>

Type of Vessels	In Service	Under Construction	Planned to be Constructed
Submarines (Nuclear)	9	8	0
Submarines (Conventional)	54	2	4
Aircraft Carriers	1	1	0
Destroyers	23	8	0
Frigates	52	5	6
Corvettes	23	4	3
Fast Attack Craft (Missiles)	84	0	0
Patrol Craft	100	0	0
Mine Warfare Vessels	40	2	0
Hovercraft	17	2	0
LPD Amphibious Ships	4	1	1
LST Amphibious Ships	25	6	0
LSM Amphibious Ships	25	0	0
Survey and Research Ships	14	2	0
Intelligence Vessels	5	3	0
Training Ships	3	0	0
Troop Transports	5	0	0
Submarine Support Ships	11	0	0
Salvage and Repair Ships	3	0	0
Supply Ships	13	0	0
Fleet Replenishment Ships	7	4	0
Support Tankers	48	0	0
Hospital Ship	6	0	0
Icebreakers	1	0	0

Source: Table prepared using data from Stephen Saunders, *Jane's Fighting Ships 2016-2017*, IHS Global, 2016, p. 131.

Chinese maritime expansion has helped spur measures to enhance national naval capabilities in Japan, South Korea, Taiwan, Australia and the United States of America. Partially responding to these strategic developments, the US Navy aims to have positioned 60 percent of its warships in the Pacific region and it seems likely that the “strategic pivot” to the Indo-Pacific, begun under the Obama administration, is set to continue and even accelerate under the new American administration.<sup>52</sup>

<sup>51</sup> Charts were prepared by the Library of Parliament at the request of the Committee

<sup>52</sup> reference re. 60% figure <http://www.straitstimes.com/singapore/us-navys-pivot-to-asia-on-track>

## Naval Capabilities of Certain Key Countries In The Pacific Region <sup>53</sup>

Countries	Aircraft Carriers	Major Amphibious Ships	Major Surface Combatants	Minor Surface Combatants	Fleet Replenishment and Support Ships	Submarines (Nuclear)	Submarines
Australia	0	3	11 (3)	19	2	0	6
Canada # (Pacific Fleet)	0	0	5	6	0	0	2
China	1 (1)	4 (1)	75 (13)	247+ (6)	55 (4)	9 (8)	54 (2)
Japan	3 (1)	3	44 (3)	33 (2)	5	0	19 (4)
New Zealand	0	1	2	6 (1)	1	0	0
North Korea	0	0	3	428+	0	0	87
South Korea	0	1 (1)	22 (4)	133 (6)	3 (3)	0	24 (7)
Russia # (Pacific Fleet)	0	0	7	30	8	15	8
United States # (Pacific Fleet)	5	23	59	18	?&	41	0

Notes: The table only refers to vessels operated by navies. It does not include vessels operated by coast guards, border guards, or other types of paramilitary or law enforcement organizations.

“Aircraft Carriers” include both fixed-wing aircraft and helicopter carriers. “Major Amphibious Ships” only include the following types of large helicopter-carrying amphibious ships: Landing Platform Helicopter (LPH), Landing Helicopter Assault (LHA), Landing Helicopter Dock (LHD), Landing Platform Dock (LPD), and Landing Ship Dock (LSD). “Major Surface Combatants” include: cruisers, destroyers and frigates. “Minor Surface Combatants” include: corvettes, large patrol vessels, missile boats, mine countermeasures vessels, and other similar types of small vessels.

(): Indicates vessels that have been ordered and that are currently under construction. It does not include vessels that are projected to be constructed in the coming years.

#: Excludes vessels that have been ordered and are currently under construction in Canada, Russia and the United States (U.S.), some of which will likely be assigned to the Pacific fleets of those countries in the coming years.

&: In the U.S., the Military Sealift Command (MSC) is the organization responsible for providing maritime sealift as well as logistics and operational support to the U.S. Navy. The MSC fleet includes more than 30 fleet replenishment and support ships, but these ships are not assigned to any specific U.S. Navy fleets. It is therefore not known how many of those ships operate in the Pacific region.

Source: Table prepared using data from Stephen Saunders, *Jane's Fighting Ships 2016-2017*, IHS Global, 2016, pp. 26-38, 102-111, 131-169, 437-459, 476-496, 579-583, 677-730, 917-972. On Canada's Pacific Fleet, see Department of National Defence (DND), *Defence Policy Review Public Consultation Document 2016*, April 2016, p. 28. On the United States' Pacific Fleet, see United States Navy (USN), “Commander Naval Surface Force, U.S. Pacific Fleet: Pacific Fleet Surface Ships,” “Aircraft Carriers (CVN),” “U.S. Pacific Fleet: Amphibious Assault Ships (LHD/LHA),” “U.S. Pacific Fleet: Amphibious Transport Dock (LPD),” “U.S. Pacific Fleet: Dock Landing Ships (LSD),” “U.S. Pacific Fleet: Cruisers,” “U.S. Pacific Fleet: Destroyers (DDG),” “U.S. Pacific Fleet: Frigates,” “U.S. Pacific Fleet: Littoral Combat Ships (LCS),” “U.S. Pacific Fleet: Mine Countermeasures Ships (MCM)” “Submarine Force Pacific: Attack Submarines (SSN),” “Submarine Force Pacific: Ballistic Missile Submarines (SSBN),” and “Submarine Force Pacific: Guided Missile Submarines (SSGN).”

<sup>53</sup> Charts were prepared by the Library of Parliament at the request of the Committee

In the Arctic circumpolar region as well, state military capabilities are expanding, particularly as the Arctic opens up to shipping and resource extraction. Norway’s 2016 long-term defence plan points out that “the most significant change in the Norwegian security environment is Russia’s growing military capability and its use of force”. The Norwegian long-term defence plan notes that: “Even though Russia does not constitute a military threat to Norway, the combination of military modernisation and the will to exert influence through military power place Russia as a central factor in Norwegian defence planning”.

Norway has responded by significantly augmenting its air and sea capabilities through the acquisition of new frigates, new light corvettes, 5 new P-8A Poseidon maritime patrol aircraft to replace the P-3<sup>54</sup> and the F-35A fighter aircraft. It has also determined the need to acquire new German-built air independent propulsion submarines. <sup>55</sup>

### Norwegian Air Force And Navy Capabilities And Expansion Plans<sup>56</sup>

Type of Vessels	In Service	Under Construction or Projected
<b>Norwegian Air Force</b>		
F-16 Jet Fighter Aircraft	57	0
F-35 Lightning II Stealth Jet Fighter Aircraft	0	Up to 52
P-3 Orion Anti-Submarine Warfare (ASW) Aircraft	6	0
Falcon 20 Eletronic Warfare (EW) and Executive Transport Aircraft	3	0
C-130 J Super Hercules Tactical Transport Aircraft	4	0
MFI-15 Safari Training Aircraft	16	0
NH90 ASW Helicopters	6	8
Sea King Search and Rescue Helicopters	12	0
Bell 412 Tactical Transport Helicopters	18	0
<b>Norwegian Navy</b>		
Submarines	6	4
Frigates	5	0
Patrol Vessels	26	1
Mine Warfare Vessels	6	0
Auxiliaries	7	1
Survey Vessels	6	1
Coast Guard Vessels	15	0

Source: Table prepared using the following data: On the Norwegian Navy, see Stephen Saunders, *Jane’s Fighting Ships 2016-2017*, IHS Global, 2016, p. 590. On the Norwegian Air Force, see Institute for Strategic Studies (IISS), *The Military Balance 2017*, p. 143. On the order for 52 F-35 Lightning II stealth jet fighters, see Forsvaret (Norwegian Air Force), “Equipment: Air Force’s Materiel – F-35 Lightning II.” On the order for 14 NH-90 helicopters, see NHIndustries, “NHI Delivers the Sixth NH90 to Norway,” 4 February 2016.

<sup>54</sup> <http://www.defensenews.com/articles/state-department-clears-p-8-sale-to-norway>

<sup>55</sup> [See <https://www.regjeringen.no/globalassets/departementene/fd/dokumenter/rapporter-og-regelverk/capable-and-sustainable-ltp-english-brochure.pdf>]

<sup>56</sup> Charts were prepared by the Library of Parliament at the request of the Committee

## Russian Northern Fleet Capabilities

Assets	In Service
<b>Surface Ships and Submarines</b>	
Submarines (Nuclear)	26
Submarines (Conventional)	16
Aircraft Carriers	1
Cruisers	2
Destroyers	5
Corvettes	9
Mine Warfare Vessels	9
LST Amphibious Ships	4
Auxiliary Oil Replenishment (AOR) Ships	4
<b>Naval Aviation</b>	
Jet Fighters and Ground Attack Aircraft	79
Anti-Submarine Warfare (ASW) Aircraft	21
Intelligence, Surveillance and Reconnaissance (ISR) Aircraft	4
Electronics Intelligence (ELINT) Aircraft	3
Transport Aircraft	9
Helicopters (ASW and Transport)	Undisclosed

Source: Table prepared using the following data: On surface warships and submarines, see Stephen Saunders, *Jane's Fighting Ships 2016-2017*, IHS Global, 2016, p. 677. On naval aviation, see IISS, *The Military Balance 2017*, p. 218.

Canada must also be cognizant of the growth of military capabilities in the Pacific and in the Arctic circumpolar region. In particular, the growth and increased activism of both the Russia's Northern Fleet and of its long-range aviation forces cannot be ignored. Though it is an expensive undertaking, the Committee believes that it will be necessary to acquire the requisite capabilities to adequately defend the air and sea approaches to Canadian territory while projecting power as part of our commitments to NORAD and NATO.

## BEGIN FUNDING ROYAL CANADIAN NAVY'S CAPABILITY GAPS



**HMCS Fredericton**

Source: Royal Canadian Navy

Almost all witnesses who appeared before the Committee on the topic of naval readiness spoke of the Royal Canadian Navy as a naval force in decline, mostly due to lack of funding and slow progress made with the recapitalization of its aging fleet. **Professor Boutilier warned that “The Navy is in a state of ... disastrous decline,” and told the Committee that “Our own Navy is shrinking commensurately, and we must act and act with resolve and act now.”**<sup>57</sup> Noting that the Royal Canadian Navy is today a much smaller naval force than it used to be and is now faced with serious capability gaps as older vessels get retired before new ones are available. For example, the premature retirement of the Royal Canadian Navy’s two supply ships in 2015 has resulted in the loss of the Navy’s at-sea replenishment capability. As a consequence, the “Navy does not have a supply ship to maintain its ships at sea,” explained Vice-Admiral (Ret’d) Denis Rouleau, Chair of the Conference of Defence Associations.<sup>58</sup> This is a significant problem which is partly being address by an interim refurbishment of an Auxiliary Oiler Replenishment ship by Davie Yards in Quebec. However, the Navy realistically requires four supply ships, not one. It is vital that one be stationed on each coast, while one is on deployment and the final ship is in maintenance. This essential capability gap must be addressed.

Vice-Admiral (Ret’d) Robertson was particularly concerned with the Royal Canadian Navy’s loss of capabilities and the long-term impact this will have on naval operations. “The Navy’s capabilities and capacities have eroded steadily over the last 20 years,” he explained, “compromising its ability to defend Canada” and “acting as a force for good abroad.”<sup>59</sup> **Because of failures to replace supply ships and destroyers, “Canada no longer has the ability to**

---

<sup>57</sup> SECD, [Evidence](#), 19 September 2016, Professor James A. Boutilier.

<sup>58</sup> SECD, [Evidence](#), 20 June 2016, Vice-Admiral (Ret’d) Denis Rouleau.

<sup>59</sup> SECD, [Evidence](#), 19 September 2016, Vice-Admiral (Ret’d) Drew Robertson.

**independently control events at sea [...] It no longer has the ability to independently sustain deployed task group operations, and must rely on others for at-sea refuelling and logistics support, even in home waters.”<sup>60</sup>**

These significant capability gaps are unacceptable for a G8 nation which aspires to play a greater role in the world, as well as meet its commitment to the defence of North America and NATO. Absent destroyers, Canada lacks command and control to effectively defend our territory. With limited air support, we cannot project power effectively. Without replenishment ships, Canada cannot easily refuel its frigates while on deployment. This will leave naval captains with no choice but to spend valuable time, energy and effectiveness plotting course for refuelling stations.

According to Robertson, the federal government should invest more money in the development of Canada’s naval forces in order to avoid reduced fleet capability in the future. “At current budget levels,” he explained, “you can anticipate the fighting fleet being further reduced over the coming 15 years toward a figure [...] of 9 surface combatants, which would be a significant 40 per cent cut from the 15 of just two years ago, while the submarines and the RCAF maritime patrol aircraft will not likely be affordable or replaced.”

This “much smaller and unbalanced future force,” Robertson warned, “would not be suitable or likely adequate for the vast challenge of defending our [...] three-ocean home waters,” nor would it be adequate for overseas deployments with allied naval forces or to protect Canadian interests on the high seas from potential foreign adversaries. For Vice-Admiral (Retired) Robertson, “the question isn’t whether Canada will successfully build ships. It always has. The question is whether the number and capabilities will be adequate to the rising challenges we see” for the future. Again, noting the commitment of the government to ensure Canada is able to simultaneously meet its NORAD and NATO commitments, in the same context, it is urgent that the government make the significant investments in the naval fleet.

Similar views were expressed by other witnesses. Navy Captain (Ret’d) Harsch stressed the Navy League of Canada’s concerns “with the steady erosion of the [Royal Canadian Navy] fleet, both in terms of capabilities and numbers.” In his view, this is problematic from an operational standpoint: “it seems that just as the number and complexity of operations involving naval forces is increasing, such as multifunctional and multinational operations conducted in support of United Nations mandates, Canada's ability to deal with them is waning.”<sup>61</sup> Like the Naval Association of Canada, the Navy League of Canada firmly believes that Canada needs “a balanced, multipurpose and combat capable fleet” to protect its sovereignty and interests.<sup>62</sup>

---

<sup>60</sup> Ibid.

<sup>61</sup> SECD, [Evidence](#), 19 September 2016, Navy Captain (Ret’d) Harry Harsch.

<sup>62</sup> Ibid.

To meet defence and security challenges in the coming decades, Canada's maritime forces will need to become better equipped for Arctic operations. They will need to become better equipped for peace-support operations, including rendering humanitarian assistance and relieving distress at sea. They will also need to sustain joint operations from the sea and to contribute to joint action ashore. This will require a **blue-water navy** that is:

- **Balanced**—with an appropriate mix of ships, submarines, aircraft and unmanned vehicles in sufficient numbers to meet commitments at home and abroad, while retaining a naval task group at high readiness.
- **Combat-effective**—capable of combat at sea across all naval warfare disciplines, crewed for sustained high-intensity operations, able to contribute to operations ashore and highly interoperable with Canada's allies and defence partners.
- **Multi-purpose**—across the spectrum of operations at sea and from the sea, able to work effectively with a wide range of national and international defence and security partners among government and civil society.
- **Arctic-capable**—able to conduct sustained operations in each of Canada's three oceans, including in the High Arctic.
- **Globally deployable**—with ships and submarines that are capable of independent ocean crossing, but enabled by support ships, operating together for the duration of any assigned mission, anywhere in the world.
- **Forward-postured**—a fleet operated and sustained in a manner that allows our ships and submarines to be deployed on an ongoing basis to regions of Canadian strategic interest.
- **Survivable**—with platforms that are designed for all physical and operating environments, able to sustain and recover from significant damage.
- **Adaptable and agile**—an institution imbued with the ethos to excel and the values to make Canadians proud, whose men and women are prepared for the complexities and ambiguities of future operations in the skills and knowledge they possess.

This is the navy that Canada needs

Source: ROYAL CANADIAN NAVY- LEADMARK 2050

Several witnesses spoke of the National Shipbuilding Strategy as a sound plan to deliver the future fleet of the Royal Canadian Navy. Vice-Admiral (Ret'd) Robertson, for example, stated that the "strategy has much to recommend." Not only does it provide a continuous, long-term plan for the renewal of the Navy and the Canadian Coast Guard fleet over the next decades, it also "creates a bipartisan approach to the acquisition of ships for the coast guard and navy over time," which is a good thing.

“The only issue is that the government of the day will decide the final details of the ships that will be built on its watch, but at least there will be a predisposition to getting on with building ships over time.”<sup>63</sup>

Minister Sajjan told the Committee that the recapitalization of the Royal Canadian Navy is a priority and the federal government is moving forward with the National Shipbuilding Strategy.<sup>64</sup> The Minister noted that “The National Shipbuilding Strategy, for all its difficulty, is moving along,” adding that he has been “working aggressively” with Public Services and Procurement Minister Judy Foote to “reduce the timeline” and to try “to streamline things to make sure” that the Navy gets the Arctic/Offshore Patrol Ships, Joint Support Ships, and Canadian Surface Combatants it requires. He assured the Committee that “Things are going well but I want to make sure they continue to go well because that’s a capability gap we cannot allow to be created.”<sup>65</sup> That being said, some witnesses would like to see further progress made with the Canadian Surface Combatants project.<sup>66</sup>

Budget 2017-2018 does not make any additional investments to addressing the additional capability gaps in the Navy.

## ARCTIC AND OFFSHORE PATROL SHIP (AOPS)



Artist’s impression of the Harry Dewolf-Class Arctic/Offshore Patrol Vessel

Source: Royal Canadian Navy

At the same time, some argue that there needs to be a review of the \$3.5 billion Arctic Offshore Patrol Vessels project. The Arctic and Offshore Patrol Ship (AOPS) project will deliver six ice-capable ships, and will, according to the Navy be capable of

---

<sup>63</sup> Ibid.

<sup>64</sup> SECD, [Evidence](#), 30 May 2016, Minister of National Defence Harjit Singh Sajjan.

<sup>65</sup> Ibid.

<sup>66</sup> SECD, [Evidence](#), 19 September 2016, Vice-Admiral (Ret’d) Drew Robertson.



- armed sea-borne surveillance of Canada's waters, including the Arctic
- providing government situational awareness of activities and events in these regions
- cooperating with other partners in the Canadian Armed Forces and other government departments to assert and enforce Canadian sovereignty, when and where necessary.<sup>67</sup>

The committee examined its capabilities in comparisons to other vessels, (see chart on the next page). These arctic patrol vessels will be unable to break ice that is more than a metre thick, and will only be able to operate in the arctic between June and October, still requiring a coast guard ice breaker as escort; they are slower than a BC Ferry at 17 knots, and will lack significant force projection in the form of weapons system. These limitations are troubling and raise the question of whether the taxpayers are receiving value for the monies spent.

*The table below contains the length and maximum stated speeds of different offshore patrol vessels from other countries and, as requested, the “S” class of the BC Ferries and certain other Canadian vessels. Most Navies and ship manufacturers provide open-water speeds in knots; for comparative purposes, we have provided the speed in kilometres per hour using [Environment Canada’s standard measurement](#) of 1 knot=1.852 kilometres per hour.*

Ship	Length	Stated speed
<a href="#">Harry DeWolf-class Arctic/Offshore Patrol Ship</a> (Royal Canadian Navy)	103.6 metres	17 knots (31.484 kilometres/hour) (Listed as “Speed (open water)”) )
<a href="#">BC Ferries “S” Class</a> (“Spirit of Vancouver Island”) (Canada)	167.5 metres	19.5 knots (36.114 kilometres/hour) (Listed as “Service Speed”)
<a href="#">CCGS Leonard J. Cowley</a> (Canadian Coast Guard fisheries patrol vessel)	72 metres	14.5 knots (26.854 kilometres/hour) (Listed as “Maximum speed”)
<a href="#">CCGS Louis S. St-Laurent</a> (Canadian Coast Guard icebreaker)	119.6 metres	20 knots (37.04 kilometres/hour) (Listed as “Maximum Speed”)
<a href="#">CCGS Martha L. Black</a> (Canadian Coast Guard light icebreaker)	83 metres	15.1 knots (27.965 kilometres/hour) (Listed as “Maximum Speed”)
<a href="#">Knud Rasmussen-class patrol vessel</a> (Denmark)	61 metres	approximately 17 knots (31.484 kilometres/hour)

<sup>67</sup> <http://www.navy-marine.forces.gc.ca/en/fleet-units/aops-home.page>

<a href="#">Turva</a> (Finland)	95.9 metres	18 knots (33.336 kilometres/hour)
<a href="#">Patrouilleur Côtier de Gendarmerie maritime</a> (France)	32 metres	28 knots (51.856 kilometres/hour)
<a href="#">ICGV Thor</a> (Iceland)	93.8 metres	19.5 knots (36.114 kilometres/hour)
<a href="#">Nordkapp-class offshore patrol vessels</a> (Norway)	105 metres	21 knots (38.892 kilometres/hour)
<a href="#">Cyclone-class patrol coastal ships</a> (USA)	51.82 metres	35 knots (64.82 kilometres/hour)
<a href="#">Outrigger trawler</a> (Commercial fishery vehicle)	Normally greater than 20 metres	Up to 8 knots (14.816 kilometres/hour)

**Recommendation 12:**

That the Government of Canada conduct a fully independent and impartial review of the capabilities of the Arctic Offshore Patrol Ships (AOPS).

**SUBMARINE FLEET TO PROTECT CANADIAN COAST**



**HMCS CORNER BROOK**  
Source: Royal Canadian Navy

The committee agrees with the statement in the Royal Canadian Navy’s vision document, *Leadmark 2050* “**Submarines are likely to remain the dominant naval platform for the foreseeable future, and hence are an essential component of a balanced combat-effective navy.**”<sup>68</sup>

<sup>68</sup> Royal Canadian Navy, *Leadmark 2050*, page 50

Witnesses also spoke of the need to replace the Royal Canadian Navy's submarine fleet in the coming years. They told the Committee that Canada needs submarines and should invest in that capability.<sup>69</sup>

Professor Boutilier stated that “Leaving aside the shortcomings or not of the Victoria class [submarines], I think that it’s vitally important that we think about how to remain in the submarine game because this is where much of the action is going to be in terms of working with our friends” and allies in the future. He noted, in particular, that “virtually every country in the Indian and Pacific Ocean regions are “getting into the submarine game” and that this “will be increasingly the coin of the realm in terms of where we operate” in the next few years. Professor Boutilier further emphasized that there are probably more than 200 operational submarines in the Indian and Pacific Ocean area of operation alone, and more are being built for regional navies.

In light of those facts and the growing importance of submarine forces worldwide, he is of the opinion that Canada should maintain and invest in its submarine capability.<sup>70</sup> **There is no doubt that the best way to defend from a submarine presence is to have submarines of our own, stationed on both coasts.** This is particularly important given the potential threat for sea mines to disrupt trade, commerce and travel in Canadian harbours, as was the case when submarines were present during the Second World War.

The Committee notes that other states in Canada's Arctic circumpolar region are expanding their submarine capabilities. While the United States and Russia deploy nuclear-powered submarines in Arctic waters, the advent of hybrid diesel-electric and fuel-cell air independent propulsion systems permits modern conventional submarines to extend their submerged time from a period of days to several weeks. This system affords conventional submarines not only with longer submerged endurance but also with under-ice capability which they have not previously possessed. In this regard, as noted earlier, Norway plans to procure four new German Type 212-class submarines with air independent propulsion starting in the mid-2020s to modernize its fleet.

---

<sup>69</sup> SECD, [Evidence](#), 19 September 2016, Vice-Admiral (Ret'd) Drew Robertson, Navy Captain (Ret'd) Harry Harsch, Professor James A. Boutilier.

<sup>70</sup> SECD, [Evidence](#), 19 September 2016, Professor James A. Boutilier.

The Australian Government last year decided to double its current fleet of 6 submarines through a domestic building program which will be pursued in cooperation with France. This program, at a cost of approximately \$50 billion (Australian Dollars), will see 12 submarines built for the Royal Australian Navy, in South Australia, with the first vessel to enter service in around 2030.<sup>71</sup>

The Australian Prime Minister stated this project will create 2,800 jobs. He proclaimed: “Australian built, Australian jobs, Australian steel, here right where we stand.”<sup>72</sup>

An enhanced submarine capability is vital for the Royal Canadian Navy. The current fleet of four Victoria-class submarines is inadequate to provide an effective presence in three oceans and a much larger fleet is required. Since about one-quarter of any submarine fleet is often in a scheduled refit or maintenance period, only three out of four vessels are operational. This modest capability is divided between two coasts. Moreover, the Victoria-class submarines do not possess an under-ice capability making them an ineffective instrument in Canada’s Arctic.

A modern submarine fleet will allow Canada to defend its own coasts, sea lanes, ports and harbours from sea mines and under water threats, while simultaneously contributing to NORAD and NATO operations in a high readiness state. Today, Canada is challenged to protect itself from hostile vessels seeking to plant under-water devices and activating them remotely months later.

A fleet of twelve modern submarines possessing an air independent propulsion system is a more appropriate capability for Canada; one that responds to the strategic challenges of the future. Twelve modern submarines would permit the stationing of six vessels in both the Atlantic and the Pacific and also provide the option to deploy vessels into Arctic waters as required.

---

<sup>71</sup> Starick, Paul, “[\\$50bn Future Submarines to be built at Osborne in Adelaide by French firm DCNS](#)”, *Adelaide Now*, April 26, 2016.

<sup>72</sup> <http://thediplomat.com/2016/04/why-japan-lost-the-bid-to-build-australias-new-subs/>

## Proposed Plan for a 12 Submarine Fleet for Canada

East Coast – High Readiness / Deployed	3
East Coast – Deep Maintenance (every 5 years)	1-2
East Coast – Build up, Build down, training	1-2
West Coast – High Readiness/Deployed	3
West Coast – Deep Maintenance (every 5 years)	1-2
West Coast – Build up, Build down, training	1-2
Total	12

The Government should acquire a fleet of 12 submarines and ensure that they are built in Canada, and the economic benefits are spread across the country.

In order for the Royal Canadian Navy to simultaneously meet a high readiness state as part of NORAD and NATO, and to effectively defend Canada, it is recommended that the Government of Canada commit to a balanced naval capability with an effective presence in all three of Canada's oceans and that it:

### **Recommendation 13:**

Commence the procurement process before the end of 2018 to acquire 12 new submarines equipped with air independent propulsion systems, six to be based on each coast.

## ENSURING A BALANCED PROTECTION FOR CANADA

Looking at the option of broader capabilities, when some Committee members raised the possibility of adding new capabilities to the Royal Canadian Navy fleet, such as a large amphibious support ship that could be used for peacekeeping or humanitarian relief operations around the world, witnesses urged caution. Although most of them believe the Navy would benefit from such a new capability, they pointed out that it should not be acquired at the expense of existing combat capabilities. As Navy Captain (Ret'd) Harsch told the Committee, "such a capability would significantly add to the flexibility of the RCN," but it "should not come at the expense of combat-capable frigate-type ships which have consistently proven their utility in more complex and dangerous operations."<sup>73</sup>

This was reiterated by Vice-Admiral (Ret'd) Robertson: "A number of capabilities could be added to the Navy ... but there would have to be more resources" otherwise "choices have to be made."<sup>74</sup> That being said, he suggested that an amphibious landing ship would be useful to the Royal Canadian Navy for humanitarian assistance, disaster response, peace support, and other types of missions.

<sup>73</sup> SECD, [Evidence](#), 19 September 2016, Navy Captain (Ret'd) Harry Harsch.

<sup>74</sup> SECD, [Evidence](#), 19 September 2016, Vice-Admiral (Ret'd) Drew Robertson.

## **SURFACE COMBATANTS NEEDED – LET`S START BUILDING!**

The priority for Canada should be the establishment of a balanced and fully effective naval capability in both the Atlantic and the Pacific, with the ability to deploy enhanced surface and sub-surface capabilities in Arctic waters. This means that sufficient funding must be provided to acquire 18 new surface combatants through the National Shipbuilding Strategy, 9 and 9 on each coast respectively. A budget envelope of \$26.2 billion<sup>75</sup> was established in 2015 to build up to 15 vessels, however, the current government has not confirmed that it is moving forward with this project and how many will be built.

The current plan note the following timelines:<sup>76</sup>

- Implementation project approval: Early 2020s
- Construction contract award: Early 2020s
- First delivery: Late 2020s
- Initial operational capability: Late 2020s
- Full operational capability: Mid 2040s

The longer the delay in moving forward on this project, the more the purchasing power of the dollars set aside will be diminished, as costs increase on a year over year basis. By increasing defence spending to 2% of GDP as proposed by the committee in Part 1 of our report, the Government will have the resources promised to build these ships sooner rather than later.

It will take 18 surface combatants to allow Canada to effectively defend its coast, and secure maritime domain awareness by having two ships at high readiness on each coast, rather than one. This will be in keeping with our NORAD and NATO obligations and will contribute to stronger bilateral relations with the United States, given their concern about the maritime domain awareness.

It will be important also to ensure that the Canadian Surface Combatant program restores an effective area air defence and command and control capability to the Royal Canadian Navy's surface fleet. With the retirement of the last of the Iroquois-class destroyers in 2017, the Navy will be without this vital capability until an air defence variant of the Canadian Surface Combatant enters service.

In order for the Royal Canadian Navy to simultaneously meet a high readiness state as part of NORAD and NATO, and to effectively defend Canada, it is recommended that the Government of Canada commit to a balanced naval capability with an effective presence in all three of Canada's oceans and that it:

---

<sup>75</sup> <http://www.tpsgc-pwgsc.gc.ca/app-acq/amd-dp/mer-sea/sncn-nss/nouvelles-news/2015-05-01-eng.html>

<sup>76</sup> <http://www.forces.gc.ca/en/business-equipment/canadian-surface-combatant.page>

**Recommendation 14:**

Build 18 surface combatants to ensure protection of Canadian waters as well as Canada's naval fleet.

**AEGIS OR SIMILAR STYLED PLATFORM REQUIRED URGENTLY**

The Government must make the restoration of this capability a priority by proceeding to acquire the AEGIS or similar styled platform. Such an investment will allow for the meaningful protection of Canada's naval fleet; the ability to stop threats; the ability to determine the sequence of response to an attack; the ability to determine protection of ships and in what order, and it will allow, most importantly for the survival of the fleet if attacked. Smaller naval fleets require protection, as the Falklands war demonstrated. An AEGIS or similar styled platform that is upgradeable to accommodate technological developments is urgently required.

The platform will provide visuals, computer projections and analysis faster than humans to enable naval commanders to act in times of crisis to protect fleet and national interests, such as cities from attack. It will also add to the ability of the Navy to support NORAD in response to ballistic missiles heading to North America.

According to the manufacturer, "the Aegis Combat System has evolved into a worldwide network, encompassing more than 100 ships among eight classes in six countries — Australia, Japan, Norway, Republic of Korea, Spain and the United States."<sup>77</sup>

Canada is not presently involved.

We cannot leave our naval fleet without this option.

In order for the Royal Canadian Navy to simultaneously meet a high readiness state as part of NORAD and NATO, and to effectively defend Canada, it is recommended that the Government of Canada commit to a balanced naval capability with an effective presence in all three of Canada's oceans and that it:

**Recommendation 15:**

Restore maritime defence capability by acquiring the AEGIS or similar styled platform.

---

<sup>77</sup> <http://www.lockheedmartin.com/us/products/aegis/global-aegis-fleet.html>

## AUXILIARY OILER REPLENISHMENT SHIPS NEEDED!



RESOLVE CLASS AOR



(SOURCE: FEDERAL FLEET)

Project Resolve involves the conversion of a modern, European-built containership into an Auxiliary Oiler Replenishment ship. The concept of converting a containership into a naval fleet auxiliary ship is not a new one – it has been performed on several occasions over the past decades including by the Royal Navy and the United States Navy.

Designed by NavTech, a leading Canadian Naval Architecture firm and Rolls Royce Marine, the ship will be converted at Federal Fleet Services' sister-company, Chantier Davie Canada in Quebec. A pan-Canadian supplier network spanning six provinces has been selected to provide equipment and services for the program.

The ship will then be made available to the Royal Canadian Navy with full services provision for the following 10 years. The government of Canada possesses an option to buy the ship at the end of the 10 years.

Source: Federal Fleet

It is essential to ensure that the Navy possesses sufficient at-sea refuelling support in both the Atlantic and in the Pacific. Auxiliary Oiler Replenishment ships core capabilities include: provision of fuel, ammunition, spare parts, food, and water, and other supplies; modern medical and dental care facilities, including an operating room; repair facilities and expertise to keep helicopters and other equipment functioning; and basic self-defence functions.<sup>78</sup> Without this capability, a forward deployed vessel's captain will spend time worrying about where to obtain fuel next. This impacts what the ship does, its speed, where it goes and how effective it will be at sea. To ensure optimal capabilities of Canada's naval war ships, it is vital to secure our own Auxiliary Oiler Replenishment support ships.

This means that the Government should aim to provide two underway support ships for the fleet in both oceans, allowing one to always be available for operations when the other is in refit/maintenance or if it is deployed elsewhere. Since only two Joint Support Ships are likely to

<sup>78</sup> LEADMARK 2050, page 41



be constructed under the National Shipbuilding Strategy, the Government should act to retain the current Auxiliary Oiler Replenishment (AOR) Resolve-class vessel being converted by Davie Shipbuilding, and also procure an additional vessel of this type by 2018. This will provide Canada with four supply ships, two AORs by 2018 (one on each coast) and another two, when the Joint Supply Ships are delivered by Seaspan.

These four ships also possess a modest secondary capacity to support forces ashore and can therefore significantly enhance the Navy's ability to respond to humanitarian emergencies. By basing these four ships, two on each coast, the government will be able to significantly bolster the government's desire to contribute to peace support and humanitarian operations, in line with the Minister's Mandate letter.

In order for the Royal Canadian Navy to simultaneously meet a high readiness state as part of NORAD and NATO, and to effectively defend Canada, it is recommended that the Government of Canada commit to a balanced naval capability with an effective presence in all three of Canada's oceans and that it:

**Recommendation 16:**

Procure a second Resolve-Class Auxiliary Oiler Replenishment (AOR) ship by 2018 to address an urgent capability gap on each coast.

**MARITIME COASTAL DEFENCE VESSELS INADEQUATE**



**HMCS Yellowknife conducts Hoist Ex with United States Coast Guard Helicopter**

Source: Royal Canadian Navy

The Committee is concerned that the Navy's current fleet of Maritime Coastal Defence Vessels is inadequate to the many roles that are assigned to it. These vessels are not only tasked with patrolling Canadian coastal waters, they are also key training assets for the Navy and are the principal naval platform tasked with a mine countermeasures role. With respect to the latter role, the Committee notes that other allies are now engaged in a significant modernization of

their maritime countermeasures capabilities in order to be positioned to respond to the significant challenge that modern high-technology sea mines represent.

Since the Maritime Coastal Defence Vessels are now more than twenty-years old, the Committee is of the view that a modernization of Canada's minor surface combatant capability must be undertaken.

### **CANADA NOT DEALING WITH SEA MINE THREATS. IT SHOULD!**

Virtually every vessel coming to a Canadian port has the ability to bring with it 1 or more sea mines that could stay hidden under the surface for six months or more before being activated. Mines of this sort have the capability to close Canadian ports and shut down maritime commerce for months. At present, Canada has no plans to build or acquire mine sweepers / destroyers vessels. This capability gap needs to be urgently addressed.

In sum, this Committee agrees with witnesses who were of the opinion that Canada needs a strong, multi-purpose, combat-capable three-dimensional navy and urged the federal government to invest more in the coming years in order to accelerate ongoing recapitalization efforts through the National Shipbuilding Strategy including to address any gaps in sub-surface and maritime air capabilities. The future of the Royal Canadian Navy depends on it.

In order for the Royal Canadian Navy to simultaneously meet a high readiness state as part of NORAD and NATO, and to effectively defend Canada, it is recommended that the Government of Canada commit to a balanced naval capability with an effective presence in all three of Canada's oceans and that it:

#### **Recommendation 17:**

Expedite replacement of the Maritime Coastal Defence Vessels with mine sweepers and destroyers capable of protecting Canadian waters.

## **ENSURE ARMY READINESS**

---

The Canadian Armed Forces are expected to respond to a broad array of commitments and contingencies, both at home and abroad. When an international commitment extends over time, it is most often the Army that shoulders most of the resourcing burden. For example, not only will the Army deploy 455 troops to Latvia as part of NATO's efforts to reassure allies along the eastern flank, it is already providing a contingent of 220 troops to Poland as part of Operation Reassurance and another 200 to Ukraine to help train that country's military forces. Further, Canada is expected to deploy up to 600 Canadian Armed Forces personnel on an as-yet unidentified mission to Africa.

Budget 2017-2018, released on 22 March 2017, confirms a pledge that the Government "will commit the level of investment required to restore the Canadian Armed Forces to a sustainable footing with respect to finances, capital and people, and equip the Forces to meet the challenges of the coming decades."

However, when one examines the spending on the military as a percentage of GDP, the government comes up well short of where we need to be. Based on testimony and public sourced information, a number of questions have arisen as to whether the government is in fact serious about providing the funding required by the military to not only maintain current operations, but to address significant capability gaps as identified by the Parliamentary Budget Officer, the Auditor General, the Canadian Armed Forces Ombudsman, the Canadian Armed Forces, industry experts and this committee.

It is important to highlight the many capabilities acquired by the Canadian Armed Forces, especially the land forces, during its 10 years in Afghanistan. These capabilities included: modern main battle tanks (the Leopard II); supporting tactical unmanned air vehicles; medium to heavy-lift helicopters (Chinook Model Ds); and, an armed helicopter capability (acquired by arming a supporting flight of Griffon helicopters).

In the aftermath of the Afghan mission, the army has been able to maintain and expand these capabilities by retaining the Leopard IIs, integrating tactical armed and unarmed UAV systems into army formations, acquiring even more capable Chinook F-model helicopters, significantly upgrading the army's light armoured vehicle capabilities and greatly improving the battlefield capabilities and situational awareness of individual soldiers through the Integrated Soldier System.

These capabilities should, at a minimum, be maintained in the years ahead.

As the Canadian government prepares to re-engage on UN Peace Support Operations, there is a need for a stronger fleet of 24 to 36 Chinook helicopters to support the needs of the Army. Additionally attack helicopters as recommended in this report will provide needed support for

the Chinook fleet, as well as effective protection for our troops during combat search and rescue operations.

### **LEARNING THE LESSONS FROM AFGHANISTAN IS IMPORTANT.**

In 2006, then chief of defence staff, General Rick Hillier told the media, after addressing the committee that:

“We don't have the kind of workhorse you need in an environment like that...You have to have a helicopter that can lift off from a high altitude during hot temperatures and that's a pretty onerous and difficult thing for any rotary-wing aircraft to be able to do...you have to carry a big load, you've got to be able to fly at least a hundred kilometres or so, and you've got to be able to do that . . . day and night.” When the Canadian military embarked on the Afghanistan mission, Gen. Hillier said, it looked at its Griffins and Sea King helicopters and decided they would be either ineffective or too difficult to maintain. So Canadian forces use helicopters owned by other members of the coalition.”<sup>79</sup>

As Canada prepares to deploy to conflict zones, it is important that the Army has the right equipment for the job. That means the government must make the investment in more heavy-lift helicopters. To do otherwise is to ignore the lessons learned and place our women and men at unnecessary risk, as we have seen in the past.

The Defence Acquisition Guide outlines at least 70 re-equipment projects for the Army in the years ahead. The former commander of the army, Lt. General Marquis Haines stated in the December 2016 “Canadian Defence Review” that “The LAV 6 is the new generation of the LAV III and the idea is to replace them one for one. Where we are in going ahead with the LAV 6 is to make sure that out of the nine infantry motorized battalions that we have, I want to make sure that six have the full complement of the LAV suite. That will provide us with six battalions but less about 60 vehicles, so we're working towards getting those 60 additional vehicles to get to the full complement.”<sup>80</sup>

Additionally, it will be important to fully replace the current Griffon tactical helicopter fleet, which is now some twenty-five years old, in order to provide modern helicopters with the capacity “to operate in non-permissive environment, and provide aerial escort, tactical security, reconnaissance, fire support, combat airlift (light), command and liaison, and special operations”. Again, the Defence Acquisition Guide suggests a replacement for the Griffons will only start to arrive after 2025. This will require the current fleet of Griffon to undergo life extensions with a likely cost in excess of \$1.5 billion with only a limited increase in its operational

<sup>79</sup> <http://www.theglobeandmail.com/news/world/helicopters-would-cut-afghan-toll-ottawa-told/article711029/>

<sup>80</sup> Canadian Defence Review, December 2016, p. 11]

life. Taking into consideration the limited capabilities of the Griffon, as described above by retired Gen. Hillier, and the need to ensure the Canadian Armed Forces are able to be at a high readiness state for not only our own defence, but to meet NORAD and NATO commitments, the Government should not look to extend the life of the full fleet, but rather, to upgrade only 40 and add a fleet of 24 military designed attack helicopters. Additionally, more robust utility helicopters should be acquired as noted earlier in the report.

With respect to the Canadian Armed Forces' ability to sustain land-based operations, Mr. Perry told the Committee that, "thanks to the increase in the ranks of the Canadian Army in the mid-2000s and its recapitalization over the last decade...we're relatively well positioned to continue the same level of land-based engagements as we have in recent years."<sup>81</sup>

However, engaging in higher levels of overseas deployments, while ensuring the Army has sufficient resources to meet any requests for assistance in domestic contingencies is, to say the least, challenging for an Army of only 51,000, including 19,000 reservists, 5000 Rangers, and some 3,400 civilians.<sup>82</sup> As one six-month rotation of troops winds down, the next rotation of troops replacing it will have already spent weeks in the intensive and mission-specific training.

At any given time, the Committee was told, one out of the Canadian Armed Force's three Regular Force brigades (approximately 4,800 personnel) are maintained at a high-level of readiness to either deploy or standby for deployment.<sup>83</sup> In addition, an unspecified number of Army Regular, Reserve and Ranger personnel are trained for short-notice response to domestic contingencies.<sup>84</sup> Thus, even relatively small numbers of troops committed to various overseas missions can and do have significant resourcing implications for the Army as a whole. Simply put, with such a broad and challenging array of demands on its resources, the Army cannot afford to flounder on any element of its recruitment, training, equipment, and retention activities.

While the Army does not directly recruit Regular Force members – this is the responsibility of the Chief of Military Personnel – it must train them. Speaking before the Committee, Deputy Commander of the Army Major-General Christian Juneau acknowledged that training personnel to operate effectively in such a broad range of environments and situations is essential but not easy. Nonetheless, he said, "Canadian soldiers must be ready to participate in different types of operations such as responding to domestic natural disasters, like the forest fires in Fort McMurray last May, or deploying to help train other armies to succeed, as we are doing in Operation UNIFIER in Ukraine."<sup>85</sup>

---

<sup>81</sup> SECD, [Evidence](#), 14 November 2016, David Perry.

<sup>82</sup> SECD, [Evidence](#), 28 November 2016, Major-General Christian Juneau.

<sup>83</sup> Ibid.

<sup>84</sup> Ibid.

<sup>85</sup> Ibid.

Maj.-Gen. Juneau explained that training takes place at the individual, unit and formation level. This approach ensures deployed forces work well with allies and can remain coherent and effective under the most demanding circumstances. As he explained, once they have been inculcated with values, skills and knowledge at the individual level,

Soldiers train as teams, units and tactical groupings of various sizes in realistic settings. This allows members of all ranks to test their skills across a range of scenarios and integrate with their team. Collective training, which includes exercises with allies and partners, also allows the Canadian Army to test its effectiveness in combined and joint operations. Each year, the Canadian Army conducts hundreds of training exercises across the country to ready soldiers to operate cohesively during missions.<sup>86</sup>

Exercises should not just involve smaller groups, but larger operations to ensure commanders, deputy commanders and officers obtain necessary experience. This should be done on a continual basis.

Of course, realistic training means training on the equipment that will be used on the mission.

The Committee heard that the Army “is committed to the renewal and replacement of core equipment capabilities” and that, after Canada’s military mission to Afghanistan wound down, its Leopard 2 family of tanks and Light Armoured Vehicles received upgrades.

Nonetheless, given the challenging conditions Canada’s military faces on foreign deployments (Latvia, Iraq and Syria, Ukraine, and a possible UN mission), the Committee is concerned by what it heard about how urgent equipment shortfalls are not being met.

It therefore recommends that:

**Recommendation 18:**

The Government of Canada maintain capabilities acquired in Afghanistan and provide funding needed to maintain army effectiveness and readiness.

**Recommendation 19:**

An additional 60 upgraded LAV III light armoured vehicles be acquired for the army.

---

<sup>86</sup> Ibid.

**Recommendation 20:**

The Government of Canada accelerate plans to acquire new tactical helicopter capability to support the army, including the incorporation of an armed attack component.

**Recommendation 21:**

The fleet of heavy-lift helicopters be expanded from 15 to 36.

**MAKE THE ARMY RESERVE FORCE TRULY PART OF THE “DEFENCE TEAM”**

Where the Army's Regular Force goes, so too will elements of the Reserves. Witnesses underscored that, for too long, however, the Army Reserve Force has not received the resources it needs to recruit, equip and train for the full range of Canada's defence requirements. These issues are addressed in the following section.

The Department of National Defence uses the term “Defence Team” when describing how closely its civilian workforce, Regular Force members and Reserve Force members work together. Indeed, the Committee heard that the Primary Reserve Force, which includes Air, Naval and Army components, “is a critical component of the Canadian Armed Forces' ability to contribute to the priority of delivering excellence across the full spectrum of operations through the delivery of specific skill sets and capabilities.”<sup>87</sup> However, based on the evidence presented, financial administration, recruitment, and training are issues that continue to affect the Reserve Force.

Reservists, the Committee was told, enjoy an excellent reputation as “citizen soldiers” in their communities across Canada and play a significant role in expeditionary missions, as demonstrated throughout Canada's military mission to Afghanistan. According to Michael Ferguson, Auditor General of Canada, the reserves “provides almost half of the Canadian Army's 40,000 soldiers. On major international missions, the Canadian Army expects Army Reserve units to provide up to 20 percent of the deployed soldiers.”<sup>88</sup> In fact, the Army Reserve exceeded this expectation in Afghanistan.

Major-General Lewis Mackenzie (Retired) said, “they provided an essential resource during the Afghan war of 20 per cent, 25 per cent, and did an outstanding job. When I visited Afghanistan, I couldn't tell the difference because there was none. They were doing that specific job extremely well.”<sup>89</sup>

The Committee learned that of the over 500 Canadian soldiers currently deployed around the world today, nearly 60 are members of the Reserve Force, or 12%.<sup>90</sup> While the drop in reserve expeditionary participation is largely owed to the slower operational tempo (pace of training and

---

<sup>87</sup> SECD, [Evidence](#), 21 November 2016, Major-General Paul Bury.

<sup>88</sup> SECD, [Evidence](#), 20 September 2016, Auditor General of Canada Michael Ferguson.

<sup>89</sup> SECD, [Evidence](#), 20 September 2016, Major-General (Retired) Lewis Mackenzie.

<sup>90</sup> SECD, [Evidence](#), 28 November 2016, Maj.-Gen.Christian Juneau.

planned operations) of the Canadian Army, the Committee heard that the Reserve Force is not – in practice - treated as a full member of the “Defence Team” especially when it comes to obtaining the necessary funds for training and equipment.

The Spring 2016 Report of the Auditor General (OAG) found that even though “the National Defence Act has established that Reserve Force members are to serve primarily on a part-time basis when not deployed...the Canadian Army spent about 20 per cent of its overall budget for Army Reserve pay and operating expenses on [full-time Reserve contracts], leaving less available for other Army Reserve activities” for fiscal year 2014-2015.<sup>91</sup> The Auditor General added further that, in the same fiscal year, “National Defence reallocated funds from the Army Reserve budget to uses other than those of the Army Reserve.”<sup>92</sup>

On 1 April 2016, the Chief of Defence Staff took the step of changing the Primary Reserve Force funding model by moving it to “a corporate account to assign a singular portal for Primary Reserve funding, for reserve pay and operations and maintenance, and that is briefed to senior management on a regular basis.”<sup>93</sup> Lieutenant-Colonel (Retired) Selkirk welcomed the Army’s adoption of a new accounting system that will ensure “the long-standing issue of money that was appropriated for the reserves not being spent on the reserves” noting that he views this as “a very positive step.”<sup>94</sup>

Recruitment and retention have also posed a significant challenge for the Reserve Forces. This is understandable given the fact that for many young reservists, priorities change when they leave post-secondary school, including marriage, children and other commitments. For mature reservists, there is also a challenge in developing programs to retain them.

Specific to the Army Reserve, the Auditor General’s Spring 2016 Report concluded that:

the Army Reserve did not have the number of soldiers it needed.... The number of Army Reserve soldiers has been steadily declining because the Army Reserve has been unable to recruit and retain the soldiers it needs. Furthermore, funding was not designed to fully support unit training and other activities.... Army Reserve units are responsible for training their own soldiers. However, we found that many Army Reserve units didn't have the number of soldiers they needed. For example, 12 of the 123 Army Reserve units were smaller than half of their ideal size.<sup>95</sup>

---

<sup>91</sup> SECD, [Evidence](#), 20 September 2016, Auditor General of Canada Michael Ferguson.

<sup>92</sup> SECD, [Evidence](#), 20 September 2016, Auditor General of Canada Michael Ferguson.

<sup>93</sup> SECD, [Evidence](#), 21 November 2016, Maj.-Gen. Paul Bury.

<sup>94</sup> SECD, [Evidence](#), 21 September 2016, Lieutenant-Colonel (Retired) John Selkirk.

<sup>95</sup> Office of the Auditor General of Canada, “[Report 5 – Canadian Army Reserve – National Defence](#),” *2016 Spring Reports of the Auditor General of Canada*, 2016; and SECD, [Evidence](#), 20 September 2016.



Chief of Reserves, Major-General Bury, attributed this “precipitous” decline in Reserve Force strength to the slower operational tempo since the end of the mission in Afghanistan. He explained that “we went in 2012 from an average paid strength of approximately 25,500 to an average paid strength on March 31 2015 of 21, 349. That’s pan-reserve, and we have started to rise now and I think that we have addressed that.”<sup>96</sup> The Office of the Ombudsman for the Department of National Defence and the Canadian Armed Forces has reported significant delays experienced by Reserve Force members wanting to transition to the Regular Force: “[w]e have Reservists who are kept waiting up to two years while their application to join the Regular Forces are processed.

Many decide it is easier to release from the Canadian Armed Forces and apply at the recruiting centre as a civilian.”<sup>97</sup> In response to the growing concerns raised by observers about the declining state of the Reserves, the Chief of Defence Staff issued an Initiating Directive on strengthening the Primary Reserve in October 2015, said Maj.-Gen. Bury, with “clear guidance to address the need to grow the size of the Reserve Force to 28,500 by July 2019, to conduct a comprehensive compensation and benefits review, and to continue with the professionalization of the Reserve Force by continually updating our training practices to ensure the Reserve Force will be trained to the same standard as those in the Regular Force.”<sup>98</sup>

Lieutenant-Colonel (Ret'd) John Selkirk of Reserves 2000, a coalition dedicated to Army Reserve advocacy, assessed that the Reserve Force has been losing five per cent of its strength every year due to a broken recruitment system, a disappearing budget, and a training system that ignores the fact that most recruits are students. Speaking to the Army Reserve’s situation, he said these three factors have led to a chronically under-strength force, a situation that, up until now, nobody has been inclined to alter. Mr. Perry also noted the significant shortfall in Reserve staffing, underscoring that “if we’re somewhere at 50 per cent or 60 per cent of what the authorized capacity for the Reserve Force is, that’s going to be quite challenging.”<sup>99</sup> The challenge of implementing programs to attract students was evident to the committee when Brigadier-General Rob Roy MacKenzie, Chief of Staff, Army Reserve was asked to confirm the status of the Civilian Military Leadership Program.

---

<sup>96</sup> SECD, [Evidence](#), 21 November 2016, Maj.-Gen. Paul Bury.

<sup>97</sup> National Defence and Canadian Armed Forces Ombudsman, “[Our People, Our Security, Our Future: Report to the Minister of National Defence](#),” *Submission to the Defence Policy Review*, July 2016, p.5.

<sup>98</sup> SECD, [Evidence](#), 21 November 2016, Maj.-Gen. Paul Bury.

<sup>99</sup> SECD, [Evidence](#), 14 November 2016, David Perry.

Expand the Civil-Military Leadership Pilot Initiative (CMLPI) to include an additional four locations that will be accessible to all Primary Reservists (totaling five including the U of A program commencing Sep 20 15). CA will be responsible for a total of four locations in AB, BC, QC and ON and RCN will develop one in Atlantic Canada.

CDS INITIATING DIRECTIVE RESERVE STRATEGY 2015:  
STRENGTHENING THE PRIMARY RESERVE 9 October 2015

Mr. Mackenzie confirmed in writing to the committee that only one member, an Army Reservist has successfully obtained the certificate and that the program was only available at the University of Alberta. This failure to deploy the program across Canada including to colleges in urban areas (Halifax, Toronto, London, Montreal, and Vancouver) represented a missed opportunity to positively and proactively engage college and university students in the Reserves.

Speaking to the implementation of the Chief of Defence Staff Directive, Lieutenant-Colonel (Ret'd) Selkirk explained “[t]he first and biggest problem,” will be the recruiting system, which has heretofore been incapable of delivering on even the limited goals for it. “[Lieutenant-General Wynnyk, Commander of the Army is] going to change how recruitment quotas are set, and the whole recruiting process is to be returned to the Army and taken away from the central Canadian Forces Recruiting Group,” said Lieutenant-Colonel (Ret'd) Selkirk, describing this as, “an enormous step in the right direction.”<sup>100</sup>

Brigadier-General. MacKenzie, Chief of Staff, Army Reserve, elaborated on the Canadian Armed Forces’ plan to address the recruitment issue, remarking that efforts to streamline reserve recruiting through the Chief of Defence Staff Directive mean “the army will assume responsibility of Military Personnel Command for all aspects of army reserve recruiting beginning in April 2017.”<sup>101</sup> The aim is to enrol new recruits within a matter of days, rather than weeks or months.

Finally, Lieutenant-Colonel (Ret'd) Selkirk highlighted the positive impact on retention that the instructions of Lieutenant-General Wynnyk, Commander of the Army, to align reservist training days with the academic year, will have. According to Lieutenant-Colonel (Ret'd) Selkirk,

[Lieutenant-General Wynnyk’s] goal is to have all recruit training done within the school year that the recruit joins at the local armoury where the unit exists. That will enormously help what we call training attrition.

<sup>100</sup> SECD, [Evidence](#), 21 September 2016, Lieutenant-Colonel (Ret'd) John Selkirk.

<sup>101</sup> SECD, [Evidence](#), 28 November 2016, Brigadier-General Rob MacKenzie.

Training attrition in the Army Reserve right now runs at 50 per cent. If you hire 10 recruits, only 5 of them ever make it past the recruit stage, let alone further development beyond that. It's been a very inefficient system for a number of years.<sup>102</sup>

Another concern raised by the Auditor General's report was that "the training of the Army Reserve was not fully integrated with that of the regular army units."<sup>103</sup> As result, "the Army Reserve did not receive the same level of guidance" on preparing for domestic missions and "didn't always have access to the equipment it needed for training and deployments."<sup>104</sup> Moreover, the Auditor General found that although "the Canadian Army provided funding for 21,000 Army Reserve soldiers, only about 14,000 were active and trained."<sup>105</sup>

Major-General Jean-Marc Lanthier, Commander of the Canadian Army Doctrine and Training Centre, told the Committee that, since Regular Force soldiers train full-time while those in the Army Reserve do not, "the level and standard they can achieve over the same period is different and therefore expectations, in terms of training, are different. To deploy, the standard is exactly the same."<sup>106</sup> The Chief of the Defence Staff, General Jonathan Vance, also underlined "that we will not deploy reservists that are ill-prepared for operations...We don't work that way; we never have, never will."<sup>107</sup>

Focusing on "the people side of Defence," Gary Walbourne, Ombudsman for the Department of National Defence and the Canadian Forces, emphasized the need to ensure that reservists receive the same treatment as Regular Force members in areas such as health assessments, medical release, transition issues and the entitlements provided to families of fallen members.<sup>108</sup>

In particular, the health assessments were of concern to Mr. Walbourne, who stated "[w]e know that about a third of our reserves currently do not have a periodic health assessment on file... I do believe, if I were going to fix things, we're talking about increasing the reserves. My question is: How are we going to increase the reserves and provide the type of care and benefits that the members need at the same time?"<sup>109</sup>

---

<sup>102</sup> SECD, [Evidence](#), 21 September 2016, Lieutenant-Colonel (Ret'd) John Selkirk.

<sup>103</sup> SECD, [Evidence](#), 20 September 2016, Auditor General of Canada Michael Ferguson.

<sup>104</sup> SECD, [Evidence](#), 20 September 2016, Auditor General of Canada Michael Ferguson.

<sup>105</sup> Ibid.

<sup>106</sup> SECD, [Evidence](#), 21 September 2016, Major-General Jean Marc Lanthier.

<sup>107</sup> SECD, [Evidence](#), 21 September 2016, General Jonathan Vance.

<sup>108</sup> SECD, [Evidence](#), 20 September 2016, Ombudsman for the Department of National Defence and the Canadian Forces Gary Walbourne.

<sup>109</sup> Ibid.

More generally, he stated that while the Canadian Armed Forces “do a tremendous job getting their people prepared” for deployment to a theatre of operation, “I’m more worried about how we utilize the reservists at home as opposed to the ones who are actually deployed.”<sup>110</sup>

These reservists include those deployed on national operations such as fighting fires, floods, and other natural disasters. According to Mr. Walbourne, “if they get hurt and do not have any evidence it was a precondition or causes because of service, they will be out of luck.”<sup>111</sup>

Brig.-Gen. MacKenzie addressed issues regarding Reserve equipment, explaining that the Canadian Armed Forces do have a plan to conduct a needs-assessment for certain types of Reserve equipment and other necessities: “**As it stands today, all reserve units don’t have tables for all the equipment suites that a unit might need. Things are pooled for collective training, and that’s what we’re taking an analysis of as to how best to look at where the needs are so that equipment is available for units when they need it. ...There’s a longer-term plan to make sure we get the right kind of radios for the reserve, as well.**”<sup>112</sup> The analysis is set to conclude around September 2017.

The Committee recommends:

**Recommendation 22:**

That the Government of Canada ensure that sufficient resources are committed for regular and reserve force training and that it report to Parliament in 180 days on progress.

**Recommendation 23:**

That the Government of Canada set aside funding necessary, as it does for Regular Forces members, to allow compensation for time spent by reservists in obtaining medical assessments.

## **LOOK TO THE RESERVE FORCE FOR SPECIALIST SKILLS**

Beyond the value the Reserve Force has brought to traditional military operations over the years, Lieutenant-Colonel (Ret’d) Selkirk also noted that Army reservists possess a wealth of unique skills and experience such as “educational professionals, municipal administrators, policemen, fire prevention, and community health” workers.” Reservists with technological, policy, logistics and other sought after abilities should be identified and recommended to support DND requirements.

---

<sup>110</sup> Ibid.

<sup>111</sup> Ibid.

<sup>112</sup> SECD, [Evidence](#), 28 November 2016, Brig.-Gen. Rob Roy MacKenzie

Echoing this, Lt.-Gen. (Ret'd) Dallaire told the Committee that the reserve has “untapped, extraordinary potential that has never been looked at as a specific asset to this nation.”<sup>113</sup> Speaking of the Army Reserve in particular, he stated that “the reserves are the most multi-ethnic, multilingual and multi-skilled force that we have...” As a result, their skills could play a greater role in helping address problems that are not just purely conflict-driven and require the use of force, but rather are far more related to “capacity building, sustaining and solving problems and ultimately pushing the kinetic side as far back as we can.”<sup>114</sup> In order to strengthen both reserve capabilities and integration with the Regular Force, he recommended in a written submission to the Committee that “10% of the Reserves ...be augmented right down to the unit level by Regular Force personnel.”<sup>115</sup>

David Perry reminded the Committee that a 2011 Report “identified a need for the Canadian military at that time to grow by several thousand additional positions, above 68,000, to address capability deficiencies in areas like cyber defence, space and intelligence, amongst others. Those are only the identified deficiencies as of five years ago; I think in the intervening time that deficit in personnel has actually grown.”<sup>116</sup> These sentiments were echoed by Maj.-Gen. Paul Bury, Chief Reserves, who stated that “[n]ew and emerging capabilities for the Canadian Armed Forces, such as cyber, will rely on the Reserve Force to leverage those who are civilian practitioners and those who have focused their academic studies in those areas of interest. This is a prime opportunity to demonstrate the value-added dynamic of the Reserve Force and for the reserve to demonstrate its connection with Canadians in many communities where the Reserve Force is, in many cases, the face of the Canadian Armed Forces.”<sup>117</sup>

For his part, Lt.-Col. (Ret'd) Last opined that recruiting more women, visible minorities and multicultural communities for both reserves and cadets could help ensure the country possesses the kind of skill sets needed for small team deployments to “stabilize, prevent and develop the regions that are sources of destabilizing radicalization,” while also giving “hope to people in communities that may be marginalized that they have a role in Canadian international policy...”<sup>118</sup>

In terms of moving forward on the Reserves, General Vance told the Committee that “I do acknowledge, and we will be addressing it in the defence policy review, that we need to look broadly at the Reserves. We need to look at the investment in the Reserves. We need to make

---

<sup>113</sup> SECD, [Evidence](#), 19 September 2016, Lt.-Gen. (Ret'd) Roméo Dallaire.

<sup>114</sup> *Ibid.*

<sup>115</sup> SECD, *Submission by LGen the Honourable Roméo Dallaire to the Minister of National Defence in Response to an Invitation to be Witness at the Senate Committee on National Security and Defence on 19 September 2016.*

<sup>116</sup> SECD, [Evidence](#), 14 November 2016, David Perry.

<sup>117</sup> SECD, [Evidence](#), 21 November 2016, Maj.-Gen. Paul Bury.

<sup>118</sup> SECD, [Evidence](#), 19 September 2016, Lt.-Gen. (Ret'd) David Last.

certain that the baseline capacity and equipping of the Reserves in Canada meets the objectives of how it is that we would employ the reserves.”<sup>119</sup>

The Auditor General confirmed that the Department of National Defence has committed to address each of his 13 recommendations on the Army Reserve, and has produced an action plan for doing so. In his words, “I think it’s very clear they know what needs to be done. That’s not really the issue. The issue is their actually being able to do it and implement it...”<sup>120</sup> The Committee recommends:

**Recommendation 24:**

That the Government of Canada provide an annual update to Parliament on

- (i) Steps it has taken to meet the recruitment target of 21,000 Army Reservists;
- (ii) Progress made to strengthen the Army, Navy and Air Force Reserves;
- (iii) How successful the Minister of National Defence is in expanding opportunities for college and university students to join the Reserves; and
- (iv) Progress made in implementing the recommendations made by the Auditor General in relation to the Reserves.

**AN ARMED CONSTABULARY COAST GUARD**



CCGS CAPTAIN GODDARD M.S.M.  
Source: Canadian Coast Guard

In addition to its role with respect to Canada’s offshore and inland waters, the Canadian Coast Guard also has a pivotal role to play in protecting Canadian waters in the Arctic. In protecting Canada’s maritime sovereignty, it is often the first government agency on the scene. In 2003, this Committee tabled its report “Canada’s Coastlines: The longest under-defended borders in the world”. Both the officers’ union and the other ranks union supported this recommendation subject to them receiving proper training, equipment and pay. Repeating the calls made in that report more than a decade ago, the Committee believes that the Coast Guard should be given a constabulary role where that may be required.

<sup>119</sup> SECD, [Evidence](#), 21 September 2016, General Jonathan Vance.

<sup>120</sup> SECD, [Evidence](#), 20 September 2016, Auditor General of Canada Michael Ferguson.

A number of classes of Coast Guard vessels already have a compliance and enforcement role, including the Mid-Shore Patrol Vessels and the Offshore Patrol Vessels. It makes sense that these, and other vessels with enforcement roles, be routinely armed and that the Coast Guard incorporate a constabulary role in addition to its other tasks. This enhanced role could potentially be counted as part of Canada's commitment to spend 2% of GDP on defence, as a member of the NATO alliance.

Presently, the Coast Guard must fly out personnel to enforce environmental, transportation, fishing, and criminal code offences. A constabulary coast guard will increase efficiency, provide needed services and reduce the burden on taxpayers. Therefore, the committee recommends:

**Recommendation 25:**

That the Government of Canada establish an armed Constabulary Coast Guard with the powers to enforce the environmental, transportation, and fishing regulations, as well as criminal code offences.

## KEEPING THE NORTH STRONG AND FREE

---

Comprised of over 18 million square kilometres of land and water, Canada's search and rescue area is the largest in the world.<sup>121</sup> The varied and demanding climate, along with the country's widely dispersed population, also make it an extremely challenging environment in which to conduct search and rescue operations, the Committee heard. Despite these immense challenges, Canada's search and rescue community collaborates to provide "seamless search and rescue, where the importance is on saving a life, and mutual aid across organizations stands as a fundamental principle of our system."<sup>122</sup>

Responsibility for Canada's search and rescue system is shared amongst federal, provincial, territorial, and municipal partners, along with volunteer organizations. The Canadian Armed Forces provide military assets to respond to more than a thousand incidents per year, and are specifically responsible for the "conduct of aeronautical SAR and the effective coordination of aeronautical and maritime SAR" exercised through the three Joint Rescue Coordination Centres located in Victoria, Trenton and Halifax."<sup>123</sup>

Maj.-Gen. Seymour emphasized that, in Canada, search and rescue teams are subject to the tyranny of time and distance, indicating that it can take up to 12 hours to reach some locations. The importance of preparedness in this regard was underscored: "everyone working in those harsh environments needs to be equipped with up-to-date, well-maintained equipment and ensure that they have the training to avoid and survive a calamitous event."<sup>124</sup> The Committee also learned that search and rescue training is tailored to meet the unique demands of the Arctic environment, and benefits from close partnership with indigenous communities.

The Canadian Coast Guard, managed by the Department of Fisheries and Oceans, is responsible for maritime search and rescue incidents, responding to over 6,000 marine distress calls every year.<sup>125</sup> Similar to the Canadian Armed Forces' search and rescue training program, Mario Pelletier, Deputy Commissioner for Operations with the Canadian Coast Guard, emphasized that thorough, hands-on, and well-maintained training is the backbone of the Coast Guard's search and rescue program.

From a personnel standpoint, there are "approximately 950 Canadian Armed Forces members who are trained to deliver search and rescue 24-365 and to reach the most challenging areas of the country to deliver medical care and provide emergency evacuation when necessary."<sup>126</sup> However, Maj.-Gen. Seymour acknowledged that "we need more search and rescue

---

<sup>121</sup> SECD, [Evidence](#), 28 November 2016, Major-General William Seymour.

<sup>122</sup> SECD, [Evidence](#), 18 April 2016, Lori MacDonald.

<sup>123</sup> SECD, [Evidence](#), 28 November 2016, Major-General William Seymour.

<sup>124</sup> Ibid.

<sup>125</sup> SECD, [Evidence](#), 28 November 2016, Mario Pelletier.

<sup>126</sup> SECD, [Evidence](#), 28 November 2016, Maj.-Gen. William Seymour.



technicians” and that steps had been taken “to increase the throughput of the number of search and rescue technicians to 20 per year so that we have the right number of folks going forward.”<sup>127</sup>

Despite the need for additional search and rescue technicians in the Canadian Armed Forces, the Committee was assured that even “as the government considers deploying members of the Canadian Forces overseas to conduct peace support operations or our operations in Europe, in no way will we compromise the search and rescue posture here in Canada.”<sup>128</sup>

Lori MacDonald, Assistant Deputy Minister, Emergency Management and Programs Branch, Public Safety Canada outlined efforts underway to modernize the National Search and Rescue Program, since its transfer to Public Safety in 2015. In addition to ongoing updates to the international satellite system for search and rescue – Cospas-Sarsat – to which Canada belongs, Ms. MacDonald highlighted that Public Safety has recently finalized a Memorandum of Understanding with the provinces and territories to share data through a central Search and Rescue Knowledge Management System.

Ms. MacDonald explained that the governance framework related to the coordination of the National Search and Rescue program needs to be strengthened in order to provide better support across all levels of government. These improvements relate to aeronautical and marine systems, as well as the integration of ground search and rescue, which is difficult to streamline as the provinces and territories retain jurisdiction over ground search and rescue. Public Safety Canada is leading a consultation process among all federal, provincial and territorial partners to update the policy framework for the coordination of search and rescue operations, the Committee heard. Policy framework consultations are expected to conclude in winter 2017.

Efforts to bolster search and rescue training, particularly in the High Arctic were highlighted by witnesses. For example, the Committee was encouraged to hear that the Canadian Armed Forces, in conjunction with search and rescue partners, continually review their search and rescue posture: “Each and every search and rescue mission undertaken by a rescue coordination centre is reviewed and analyzed for lessons learned, and then those lessons learned are applied and then put into the system. That is done across the entire board.”<sup>129</sup>

The majority of search and rescue-related challenges raised by witnesses related to their ability to be undertaken in Canada’s Arctic region. These issues are described in further detail below.

---

<sup>127</sup> Ibid.

<sup>128</sup> Ibid.

<sup>129</sup> Ibid.

The Canadian Armed Forces' role in defending Canadian sovereignty and ensuring Arctic security is likely to increase in both scope and importance. However, maintaining capabilities in the Arctic is very expensive. As the Defence Policy Review Consultation Document noted, "military activity in the North comes at an exceptional cost."

A forward-looking defence policy for Canada should address the range of existing and emerging challenges in the Arctic, the Committee heard, particularly as the Arctic takes on even greater strategic importance. Several witnesses stressed that the Arctic environment is growing increasingly complex as melting Arctic sea ice opens up new maritime trade routes, and that Canada must be prepared for the additional risks associated with higher levels of human and commercial activity in the region.

### **JOINT TASK FORCE NORTH**

With increased Arctic activity comes augmented responsibilities for the Department of National Defence and the Canadian Armed Forces, as well as their partners in search and rescue, emergency response, and environmental monitoring. While the testimony highlighted a range of efforts undertaken by the Canadian Armed Forces to rebuild certain Arctic capabilities in recent years, it is clear to the Committee that progress has been too slow. Enhanced Arctic capabilities are essential, witnesses urged, particularly in light of Russia's modernized Arctic assets. A greater awareness of Canada's airspace and maritime approaches requires improved intelligence, surveillance, and reconnaissance capabilities.

As mentioned earlier, the Canadian Armed Forces have primary responsibility for maritime search and rescue. When requested, they also provide assistance to provinces and territories for ground search and rescue, and respond to community emergencies such as urgent resupply or health care crises.<sup>130</sup> However, the formation of Joint Task Force North, as one of six regional joint task forces, is specifically different from the rest "because it does not have a force-generation mandate [which includes responsibilities for organizing, training, and equipping forces]. Rather, it is a small, modestly staffed planning and coordination and command and control organization that plans for and then employs assets coming from formations and units from the south, or from other regional joint task forces."<sup>131</sup>

Brigadier-General Nixon outlined his priorities as Commander of Joint Task Force North as follows:

---

<sup>130</sup> SECD, [Evidence](#), 12 December 2016, Brig.-Gen. Michael Nixon.

<sup>131</sup> Ibid.

[P]repare, plan for and conduct operations and build and maintain an area of responsibility of situational awareness, so across the area of responsibility; extend and strengthen regional partnerships; support the Canadian Rangers and the Junior Canadian Ranger Program, support Team North personnel; and equally important, champion necessary infrastructure projects.<sup>132</sup>

Operating in the Arctic entails specific challenges, and witnesses claimed their success and efficacy is largely contingent on domain awareness, proper infrastructure, and search and rescue readiness.<sup>133</sup> Timely response is absolutely essential in an Arctic search and rescue scenario and requires seamless collaboration between search and rescue partners – coordinated by the Joint Rescue Coordination Centres – and the importance of readiness cannot be understated.

In this regard, Maj.-Gen. Seymour outlined the training requirements specific for search and rescue personnel in the Arctic:

During a SAR tech's first year of training, he or she will spend 11 days working with Inuit hunters in the High Arctic to learn survival skills. This close partnership with the First Nations people is critical to our collective ability to execute SAR missions in the difficult High Arctic environment.

Beyond standard qualifications, our SAR crews practise their skills through various exercises. Small-scale SAR exercises are conducted regularly at the unit level with local and regional partners, while large, multinational and multi-agency training events, such as the National Search and Rescue Exercise, allow SAR crews from across the country to put their skills to the test and hone their coordination capacities, which are so critical to the SAR mission.<sup>134</sup>

Timing is a crucial factor when it comes to search and rescue missions and dependent on the rapid availability of assets. In the Arctic region, this can pose a particular challenge. As such, the Committee was pleased to hear about the Coast Guard's initiative to expand the membership of the Coast Guard Auxiliary search and rescue volunteers in the Arctic.

Established in 2015, this initiative will:

see six new Coast Guard search and rescue lifeboat stations created — four in British Columbia and two in Newfoundland and Labrador —

---

<sup>132</sup> Ibid.

<sup>133</sup> SECD, *Evidence*, Vice-Admiral (Ret'd) Drew Robertson.

<sup>134</sup> SECD, *Evidence*, 28 November 2016, Maj.-Gen. William Seymour.

as well as the refurbishment of a facility in St. Anthony, Newfoundland, that will be home for a new lifeboat station as well; enhancements to Coast Guard Marine Communication and Traffic Services Centres, Canada's ears and eyes on the water to ensure uninterrupted communications with mariners; the extension of the operating season for Coast Guard ships operating in the Arctic; the establishment of a dedicated Arctic auxiliary branch; the expansion to the Arctic of the existing indigenous community boats volunteer program that will provide Arctic communities access to funding for vessels and equipment so that they can participate in the Coast Guard Auxiliary; and the creation of a new seasonal inshore rescue boat station in the Arctic.<sup>135</sup>

For the majority of witnesses, the most immediate threats to Canada's Arctic territory are not state-based. Rather, Brigadier-General Michael Nixon, Commander of Joint Task Force North stated that, "[t]he most significant operational threat in Joint Task Force North's area of responsibility is climate."<sup>136</sup> In a written submission to the Committee, Senator Dennis Patterson, Senator for Nunavut, echoed calls for improved logistical support to address environmental and geographic challenges: "[c]limate change is opening up the Arctic at an alarming rate. Human activity is noticeably increasing – polar flights; increased and prolonged shipping through the Northwest Passage; and an observed rise in adventurers and pleasure crafts in the Arctic are among some of the activities mentioned."<sup>137</sup> As a result, Senator Patterson recommended that "[s]teps must be taken to respond to the anticipated number of accidents in the Arctic."<sup>138</sup>

Senator Patterson's, submission to the Committee also called on the government to ensure that all search and rescue aircraft include appropriate capabilities for Arctic missions.

It was noted that since the closest dedicated air search and rescue assets are located in Winnipeg, the government "consider contracting or sub-contracting local-based private aviation companies to provide ready support for [SAR]" efforts in the Arctic.<sup>139</sup>

While Maj.-Gen. Seymour told the Committee that the Canadian Armed Forces have dedicated search and rescue platforms, "including Griffon and Cormorant helicopters, and Hercules and Buffalo aircraft" that are all "able to operate in an Arctic environment" the Committee notes the

---

<sup>135</sup> SECD, [Evidence](#), Mario Pelletier.

<sup>136</sup> SECD, [Evidence](#), 12 December 2016, Brigadier-General Michael Nixon.

<sup>137</sup> SECD, written submission, *Defence Policy Review 2016, Official Submission – Senator Dennis Patterson, Senator for Nunavut*, 2016.

<sup>138</sup> Written submission by Senator Dennis Patterson.

<sup>139</sup> Ibid.

evidence it heard regarding the slow progress of the Fixed-Wing Search and Rescue Replacement Project.<sup>140</sup> [check]

Dan Ross testified that the Fixed-Wing Search and Rescue Project - aiming to replace six CC-115 Buffalo and 12 CC-130 legacy Hercules aircraft – “has been under way for 14 years.”<sup>141</sup> With the recent government decision to procure 16 C-295W aircraft from Airbus, the project has recently moved into the implementation phase, and it is expected that the new Fixed-Wing Search and Rescue aircraft will reach full operational capacity in 2022.<sup>142</sup> Senator Patterson expressed that while the C-295 will be technologically superior to the older search and rescue aircraft, he is concerned with its speed and the implications for response time:

My research for the defence round table showed that none of the Hercs that now fly out of Trenton, Ontario; Greenwood, Nova Scotia; and Winnipeg make Iqaluit in three hours of flying time from those bases right now. So now we will have slower aircraft with better technological capabilities, but it means that the recommendation we came up with in our round table...[was] to reposition those aircraft in either Iqaluit or Yellowknife, where [Joint Task Force North] have detachments, or even Cambridge Bay, [which] would significantly improve response time. It would increase the ability of those aircraft to do on-station time with much more fuel.<sup>143</sup>

The Committee is concerned about the decision in Budget 2017-2018 to defer spending of \$8.48 billion to 2035-2036 to coincide with the delivery of the fixed wing search and rescue aircrafts and looks forward to further clarification on this in the weeks ahead. While the Government’s decision to procure new Fixed-Wing Search and Rescue aircraft for the Royal Canadian Air Force is welcomed, there is concern that this acquisition does not fully recognize the unique challenges in the Arctic.

## **ENHANCING SEARCH AND RESCUE**

Further steps should be taken. Brigadier-General Michel Lalumiere, Director General of Air Force Development, specified that the Royal Canadian Air Force is looking to update the search and rescue helicopter fleet to 2040, a project which is currently in the options analysis phase. In the context of a broader need to enhance search and rescue, this update must proceed and options pursued to further strengthen the current Cormorant fleet. Today this fleet comprises only 14 aircraft to cover the East and West Coasts. None are based in the central region from the Great Lakes to the North Pole.

---

<sup>140</sup> SECD, [Evidence](#), 28 November 2016, Maj.-Gen. William Seymour. See also DND, “[Fixed-wing search and rescue procurement project](#),” 10 January 2017.

<sup>141</sup> SECD, [Evidence](#), 20 June 2016, Dan Ross.

<sup>142</sup> DND, “[Fixed-wing search and rescue procurement project](#),” 10 January 2017.

<sup>143</sup> SECD, [Evidence](#), 12 December 2016, Senator Dennis Patterson.

Additional steps should also be taken given the requirement in the Defence Acquisition Guide to replace the CC-138 Twin Otter to acquire a more versatile aircraft which will be based in the North. Furthermore, the government should move forward to engage more local contractors to support search and rescue in northern Canada.

It recommends:

**Recommendation 26:**

That the Government of Canada take steps to improve Search and Rescue response times in the Far North by:

- (i) expediting the replacement of the CC-138 Twin Otter;
- (ii) examining the option of activating the VH-71 helicopters currently in storage to enhance Search and Rescue;
- (iii) expanding the existing partnership with the Civil Air Search and Rescue Association to provide more robust Search and Rescue options in the Arctic by local contractors; and
- (iv) replacing the current Aurora patrol aircraft fleet with a new patrol aircraft by 2030.

**BOLSTER RESERVES AND RANGERS IN CANADA’S NORTH**

**What are the Canadian Rangers?**

The Canadian Rangers<sup>1</sup> are a sub-component of the Reserve Force within the Canadian Armed Forces (CAF). They provide “...a CAF presence in those sparsely settled northern, coastal and isolated areas of Canada which cannot conveniently or economically be covered by other elements of the CAF.”<sup>2</sup>

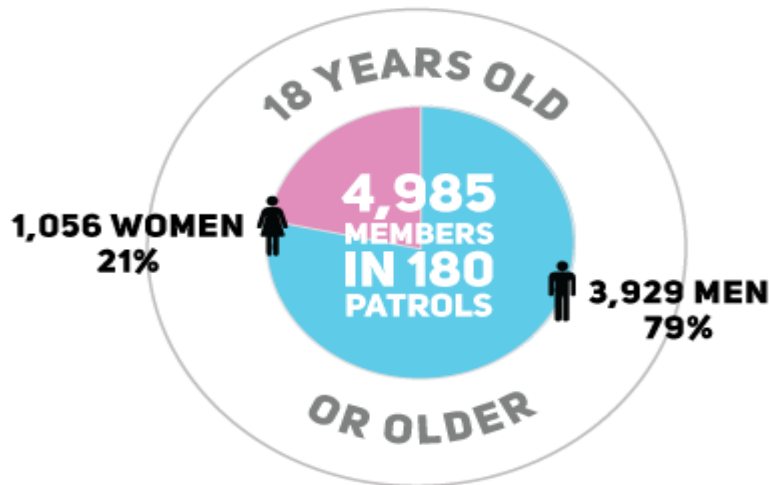
**Who are the Canadian Rangers?**

Legal residents of Canada who are 18 years of age or older are eligible to join the Canadian Rangers. They must also meet the following criteria:<sup>3</sup>

- be physically and mentally capable of carrying out Canadian Rangers’ duties;
- must not have been convicted of a serious offence under the Criminal Code of Canada for which a pardon has not been granted, including firearms offences, violent crimes, drug-related offences, and other offences at the discretion of the Canadian Ranger Instructor;
- must not be a member of any other sub-component of the Canadian Armed Forces or another national military or police branch (Royal Canadian Military Police, Coast Guard); and

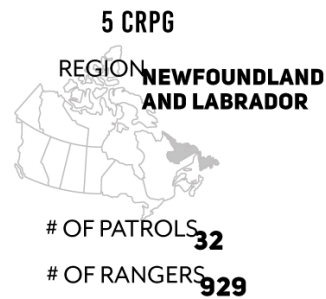
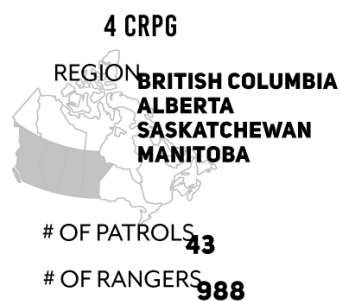
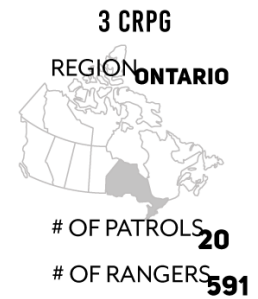
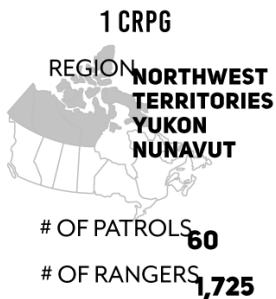
- must be knowledgeable and personally equipped to survive and efficiently operate on the land.

As of April 30, 2016, there were 4,985 Canadian Rangers on strength with the CAF.<sup>4</sup> They are made up of 3,929 male members (79%) and 1,056 female members (21%).



### Where are the Canadian Rangers?

#### CANADIAN RANGER PATROL GROUPS



## Addressing Challenges

Canadian Rangers also play an integral role in Arctic search and rescue missions. Often referred to as the “eyes and ears” throughout Canada’s Arctic region, the Rangers are a roughly 5,000-strong force that provides a military presence across 179 Ranger Patrols in 414 sparsely populated and northern communities.<sup>144</sup> In a 2011 report, the Senate Standing Committee on National Security and Defence recommended continuing the modernization of the Rangers, and that consideration be given to expand their role in the maritime environment.

The Minister of National Defence Mandate Letter directs Minister Sajjan to increase the size of the Canadian Rangers. Brig.-Gen. MacKenzie indicated that efforts towards this goal are underway, and that “a truly comprehensive review through the Rangers groups to find out where growth is practical” is being conducted.<sup>145</sup> Many witnesses cited the excellent work carried out by the Rangers in remote northern communities and sparsely populated regions. Yet, the Committee was surprised to hear that the Canadian Armed Forces do not actively recruit Junior Rangers into the Canadian Rangers program, and that “there is no tracking mechanism to see whether [Junior Rangers] are joining the Rangers or enrolling in the Canadian Armed Forces” after they reach the age of 18 and leave the program.<sup>146</sup>

“Ideally what we’re looking for in the Junior Rangers is for them to move on to post-secondary education and those kinds of activities, and not necessarily just the military” explained Lieutenant-Colonel Carvalho, Commanding Officer, 1st Canadian Ranger Patrol Group.<sup>147</sup>

Lt.-Col. Carvalho also said that while the Canadian Armed Forces is examining exactly how and where to expand the roles of the Rangers, additional training has been introduced. Brigadier-General MacKenzie, Chief of Staff, Army Reserve, described the two new courses undertaken in 2016: “One was a basic patrol course. It’s a military indoctrination-type course for Rangers. That was something we didn’t have in the past. Second was a patrol leader’s course to help them with the leadership roles and organization. Rangers are considered trained when they’re enrolled, so they come in with those skill sets.”<sup>148</sup>

The Rangers and Junior Rangers play an important role in the community and opportunities should be sought to invite greater participation. One of the key responsibilities of the Rangers is to train Canadians to survive in harsh northern climates. This is a vital role which should be enhanced.

---

<sup>144</sup> SECD, [Evidence](#), 28 November 2016, Maj.-Gen. Christian Juneau.

<sup>145</sup> SECD, [Evidence](#), 28 November 2016, Brig.-Gen. Rob Roy MacKenzie.

<sup>146</sup> SECD, [Evidence](#), 12 December 2016, Lieutenant-Colonel Luis Carvalho

<sup>147</sup> Ibid.

<sup>148</sup> SECD, [Evidence](#), 28 November 2016, Brig.-Gen. Rob Roy MacKenzie.



In his written submission, Lt.-Gen. (Ret'd) Dallaire recommended that the Canadian Rangers, who are celebrating their 70th anniversary this year, be “given the assets and opportunities to train for deployment on the water in order to conduct surveillance in the open areas” as a means of expanding the Canadian Armed Forces’ capabilities in this regard.<sup>149</sup>

At the same time, the government must address the significant concerns identified by the Canadian Armed Forces ombudsman when he noted that Rangers lack sufficient support systems, including access to health care services.

According to Walbourne: "Anyone who's joined the Canadian Armed Forces and has committed their side of the obligation leaves us with an obligation. That is to ensure that they're well managed and well taken care of, if they should become ill or injured."<sup>150</sup> This concern, as well as any other identified by the Ombudsman as he conducts his review, should be a high priority for the government to address.

Given the national importance of Canada’s Arctic, along with the rapidly changing security environment, the Committee recommends:

**Recommendation 27:**

That the Government of Canada move forward with a plan to increase the size of the Rangers to 7000, increase the frequency of the training available to Rangers and seek ways to expand the Junior Ranger and Cadet programs in the North, and that the government report to Parliament in 180 days on progress made.

**Recommendation 28:**

That the Government of Canada move forward to provide Rangers with coastal capabilities to support search and rescue operations.

**Recommendation 29:**

That the Government of Canada establish a Reserve Regiment based in Yukon.

---

<sup>149</sup> Written submission by Lt.-Gen. (Ret'd) Roméo Dallaire.

<sup>150</sup> <http://www.cbc.ca/news/politics/canadian-rangers-arctic-patrol-reserves-1.3938299>

## ELIMINATING SEXUAL MISCONDUCT

---

In March 2015, former Supreme Court Justice Marie Deschamps released the findings of the [\*External Review into Sexual Misconduct and Sexual Harassment in the Canadian Armed Forces\*](#). The report served to illustrate the prevalence of inappropriate sexual misconduct within the Canadian Armed Forces, putting the spotlight on the underlying sexualized culture in the military and called for strong leadership in implementing the cultural change that is key to tackling this serious problem. Justice Deschamps noted the “undeniable link” between the existence of a hostile organizational culture and the poor integration of women into the organization, urging senior leadership to focus on increasing the representation of women in the Canadian Armed Forces as a first step towards driving cultural change.

For those who care about the Canadian Armed Forces and its members, Justice Marie Deschamps is well worth reviewing. For that reason, the Committee is republishing in the following pages from the report and the full list of recommendations.

The following are examples of conduct that constitute prohibited sexual harassment:

- use of belittling language referring to body parts;
- unwelcome sexual invitations or requests;
- unnecessary touching or patting;
- leering at a person’s body;
- unwelcome and repeated innuendo or taunting about a person’s body, appearance or sexual orientation;
- suggestive remarks or other verbal abuse of a sexual nature; or
- visual displays of degrading or offensive sexual statements or images.

In addition, sexual harassment may occur in the course of one incident, or in a series of incidents, which in isolation would not necessarily constitute sexual harassment. The victim and the harasser may be of the same or different sexes, and the harasser need not be employed by the victim’s organization; rather the victim can be anyone affected by the conduct.

## SEXUAL HARASSMENT AND POWER RELATIONSHIPS

As the Ontario Court of Appeal commented in relation to a sexual harassment complaint by various employees against their supervisor:

**Because of the power imbalance in an employee's relationship with a supervisor, and the perceived consequences to objecting to a supervisor's behaviour,** particularly when the behaviour is not directed specifically at that employee (for example, making comments to or touching another employee, being nude in front of a group of people), **an employee may go along with the conduct. In those circumstances, the employee will be effectively consenting to unwelcome conduct because she feels constrained from objecting.**<sup>206</sup>

This concern is particularly relevant to the context of the CAF where the chain of command, and the organizational structure that supports it, is the basis of most interactions. Power imbalances may also spring from differences in rank, which again affect almost all work and social interactions.

The Report found "... that members appear to become inured to this sexualized culture as they move up the ranks. For example, non-commissioned officers (NCOs), both men and women, appear to be generally desensitized to the sexualized culture. Officers tend to excuse incidents of inappropriate conduct on the basis that the CAF is merely a reflection of civilian society. There is also a strong perception that senior NCOs are responsible for imposing a culture where no one speaks up and which functions to deter victims from reporting sexual misconduct. As a result of these attitudes, there is a broadly held perception in the lower ranks that those in the chain of command either condone inappropriate sexual conduct, or are willing to turn a blind-eye to such incidents."

### SENIOR LEADERS NEED TO ACT TO CHANGE CULTURE

"Comprehensive cultural change is therefore required, and such change cannot occur without the proactive engagement of senior leaders in the CAF. Senior leaders— particularly those with general oversight responsibilities—need to acknowledge the problem of sexual harassment and sexual assault in the armed forces, clearly state that such misconduct is unacceptable, and adopt a comprehensive strategy to eliminate the sexualized environment and to better integrate women into the military, including by appointing more women to positions of senior leadership."

### ESTABLISH A CENTER FOR ACCOUNTABILITY FOR SEXUAL ASSAULT AND HARASSMENT

External Review Authority "recommends creating a centre for accountability for sexual assault and harassment, independent from the CAF, with responsibility for receiving complaints of inappropriate sexual conduct, as well as responsibility for prevention, victim support, data

collection, training, and monitoring of case outcomes. Complaint processes should allow victims to choose whether or not they wish their complaint to trigger a formal investigation, but in either case should entitle the victim to receive treatment and support services.”<sup>151</sup>

---

<sup>151</sup> <http://www.forces.gc.ca/en/caf-community-support-services/external-review-sexual-mh-2015/summary.page>

## **FULL LIST OF JUSTICE DECHAMPS' REPORT RECOMMENDATIONS**

### **Recommendation No. 1**

Acknowledge that inappropriate sexual conduct is a serious problem that exists in the CAF and undertake to address it.

### **Recommendation No. 2**

Establish a strategy to effect cultural change to eliminate the sexualized environment and to better integrate women, including by conducting a gender-based analysis of CAF policies.

### **Recommendation No. 3**

Create an independent center for accountability for sexual assault and harassment outside of the CAF with the responsibility for receiving reports of inappropriate sexual conduct, as well as prevention, coordination and monitoring of training, victim support, monitoring of accountability, and research, and to act as a central authority for the collection of data.

### **Recommendation No. 4**

Allow members to report incidents of sexual harassment and sexual assault to the center for accountability for sexual assault and harassment, or simply to request support services without the obligation to trigger a formal complaint process.

### **Recommendation No. 5**

With the participation of the center for accountability for sexual assault and harassment:

Develop a simple, broad definition of sexual harassment that effectively captures all dimensions of the member's relationship with the CAF.

Develop a definition of adverse personal relationship that specifically addresses relationships between members of different rank, and creates a presumption of an adverse personal relationship where the individuals involved are of different rank, unless the relationship is properly disclosed.

Define sexual assault in the policy as intentional, non-consensual touching of a sexual nature. Give guidance on the requirement for consent, including by addressing the impact on genuine consent of a number of factors, including intoxication, differences in rank, and the chain of command.

### **Recommendation No. 6**

With the participation of the center for accountability for sexual assault and harassment, develop a unified policy approach to address inappropriate sexual conduct and include as many aspects as possible of inappropriate sexual conduct in a single policy using plain language.

### **Recommendation No. 7**

Simplify the harassment process by:

- Directing formal complaints to COs acting as adjudicators in a grievance
- Reducing emphasis on ADR.

### **Recommendation No. 8**

Allow victims of sexual assault to request, with the support of the center for accountability for sexual assault and harassment, transfer of the complaint to civilian authorities; provide information explaining the reasons when transfer is not effected.

### **Recommendation No. 9**

Assign responsibility for providing, coordinating and monitoring victim support to the center for accountability for sexual assault and harassment, including the responsibility for advocating on behalf of victims in the complaint and investigation processes.

### **Recommendation No. 10**

Assign to the center for accountability for sexual assault and harassment, in coordination with other CAF subject matter experts, responsibility for the development of the training curriculum, and the primary responsibility for monitoring training on matters related to inappropriate sexual conduct.

## MILITARY COMMANDERS MUST SHOW RESULTS

The Committee agrees that when military personnel do not feel comfortable or safe within the organization this becomes a quality of life concern, impacting both the victim and the effectiveness of the organization as a whole. During his appearance, General Vance explained that Operation Honour - launched in the wake of the Deschamps Report - strives “to eliminate harmful sexual behaviour from within [Canadian Armed Forces] ranks.”<sup>152</sup> Among its other negative effects, sexual harassment poses a challenge to both recruitment and retention.

The Chief of Defence Staff’s Operation Order effectively relieves Commanders of the authority to review and address sexual harassment and bullying, and has turned it over to the Sexual Misconduct Response Centre which “will operate outside of the CAF chain of command, reside within the Department of National Defence, and report to the Deputy Minister (DM).”<sup>153</sup> This unprecedented step indicates the seriousness of the problem and the need for a full operational centre responding to the needs of members.

### **CHIEF OF DEFENCE STAFF OPERATION ORDER – OPERATION HONOUR**

14. Conduct of Operations. This will be a whole-of-CAF effort. The CAF will initially use the CAF Strategic Response Team – Sexual Misconduct (CSRT-SM) to coordinate the development of policies, education, training, and additional member support. Op HONOUR shall be executed in four phases:

a. Phase One - Initiation. (Ongoing) VCDS will complete a comprehensive strategy and associated action plan to address the remaining recommendations of the ERA report while taking the necessary steps to develop the mandate, governance and operational model of the Sexual Misconduct Response Centre (Interim) (SMRC(I))(See Annex B). Commanders and the Senior Leadership of the CAF shall personally receive my detailed direction and intent on the actions needed to achieve the mission. Commanders will formally and personally communicate this down and oversee the development of Formation and Unit-level orders. Phase One is to be complete no later than (NLT) 30 Sep 15;

b. Phase Two – Preparation. Commanders shall personally oversee the communication and application of discipline, extant leadership doctrine, and orders and policies specifically in relation to inappropriate sexual behaviour. The Supported Commander, assisted by the Supporting Commanders, will develop and deliver education on harmful and inappropriate sexual behaviour to CAF. Concurrent with the execution of this phase, the Sexual Misconduct Response Centre (Interim (SMRC(I))) will commence operations as outlined in Annex B. The effectiveness of Phase Two activities is to be measured, with the results reported to me NLT 1 Jul 16;

c. Phase Three – Deployment/Employment. Concurrent with Commanders’ continued communication and application of discipline, the CAF will issue revised policies and deliver mission-specific training to its leaders. Concurrent with the execution of this phase, SMRC(I) will transition to a full operational capability. The effectiveness of each of Phase Three activities are to be measured, with the results reported to me NLT 1 Jul 17; and

d. Phase Four – Maintain and Hold. In this phase, the CSRT-SM coordination functions will be re-absorbed into a DND/CAF that is better oriented, educated and trained to administer them in a manner that is fully consistent with DND and CAF Code of Values and Ethics. Commanders will

<sup>152</sup> SECD, [Evidence](#), 21 September 2016, General Jonathan Vance.

<sup>153</sup> <http://www.forces.gc.ca/en/caf-community-support-services/annex-b-op-honour.page>

continue to personally oversee the maintenance of values and the application of administrative and/or disciplinary measures. The SMRC will continue to function at full operational capability

**Alternate Formats**

[CDS Op Order - Op HONOUR \(PDF, 4726 kB\)](#)

[CDS Op Order - Op HONOUR Annex A Annex B Annex C](#)

[Frequently Asked Questions - The Sexual Misconduct Response Centre](#)

[DM/CDS Internal Message - Sexual Misconduct Response Centre to be established for Canadian Armed Forces members](#)

Furthermore, the Canadian Armed Forces has developed training materials like the Commanding Officer's Toolbox, to ensure that members of all ranks are able to handle discovered cases of sexual misconduct. As a result of these measures, since January 2016, eight individuals have been convicted of sexual misconduct-related offences and another 55 have been subjected to administrative action.<sup>154</sup>

With that said, the Committee also agrees that there are still areas of improvement left for the Canadian Armed Forces.

The August 2016 progress report for Operation Honour confirms this assessment, stating that "The Canadian Armed Forces is still only beginning to implement the change identified in Operation Honour which though now well underway, will take years to instill and consolidate. Most of the initiatives generating this change are in their early stages. So too is the organization's ability to measure the outcomes that are beginning to emerge."<sup>155</sup> Given the slow progress to date, the Committee agrees that the Canadian Armed Forces must take the necessary steps to ensure the timely implementation of Operation Honour. The Committee understands that change- especially cultural change within an organization- takes time, but also agrees that the Canadian Armed Forces must take whatever steps are necessary to support Operation Honour and expedite its implementation.

Furthermore, it is imperative that the Minister of National Defence and the Chief of Defence Staff lead the culture change in the Department to ensure that each member is accountable and each leader will be held responsible. Change should begin at the recruitment stage with mental health and values evaluation based on metrics and reasonable questions to gauge responses. For example, recruits should be presented with various scenarios including situations which may occur during deployment. The resulting metrics should be used to determine suitability for the Canadian Armed Forces and whether recruits meet the high moral standard to be eligible to wear the Canadian uniform.

---

<sup>154</sup> Ibid.

<sup>155</sup> Library of Parliament briefing document, "Study on Issues related to the Defence Policy Review: Sexual Misconduct in the Canadian Armed Forces and Related Issues," 21 September 2016.

Once a member, there must be a sense of accountability. Commanders who fail to ensure bullies and predators are identified and disciplined, should themselves be relieved of their command.

As the Committee did not hear sufficient testimony in this area, it intends to follow-up during this Parliament with a report on the full implementation of the recommendations from the Deschamps Report and on the outcomes of Operation Honour.

To successfully review this matter, the committee will seek a full briefing from the Chief of Defence Staff on each phase of his directive related to Operation Honour.



## REFLECTING CANADA'S DIVERSITY

---

Barriers to the retention of women in the Canadian Armed Forces were also discovered by the Committee. For example, Lt.-Gen. Michael Hood, Commander of the Royal Canadian Air Force, stated that “the challenges of having a family, deploying and meeting the military services are much more acute in a married service couple than they are with just one person in the service. Typically, what we see happen is one of those spouse will retire to enable the career of the other.” In many cases, this will result in the female member retiring.<sup>156</sup>

The 2016 Fall Report of the Auditor General of Canada found that women made up only 14% of the Regular Force. The Committee was therefore encouraged to hear that the military's senior leadership has set ambitious recruitment targets backed by a “re-energized” attraction and marketing strategy to encourage more female recruits, and “is giving priority processing and enrolment to women.”<sup>157</sup> Minister Sajjan testified that the Canadian Armed Forces is aiming to increase the percentage of women in the Canadian Armed Forces by 1% per year, with a goal of reaching up to 25%.<sup>158</sup> The Committee was also told about efforts to incorporate gender perspectives into military planning and operations, including elements of training.

Increasing the representation of women in the military, as well as improving gender mainstreaming across the organization, are important goals which are central to changing the culture currently limiting women's representation in the Canadian Armed Forces.

Including women will be especially important as Canada renews its commitment to United Nations Peace Support Operations. The Committee's previous report, *UN Deployment: Prioritizing Commitments At Home and Abroad* recommends that Canada should help expedite implementation of United Nations Resolution 1325. To accomplish this, the Canadian Armed Forces must adopt proper gender-based analysis and remove its own barriers for the involvement of women.

During his appearance before the Committee, Chief of Defence Staff General Vance stated that “diversity, not just with women, but with indigenous people, visible minorities — increases our operational capability.”<sup>159</sup> As such, in addition to improving the gender balance within the Canadian Armed Forces, a new defence policy should emphasize the importance of increasing all manner of diversity in the military. This sentiment was echoed in the testimony of Minister Sajjan, who reiterated the need to reflect the diversity of Canada's multicultural population, and told the Committee that the organization is committed to making the Department of National Defence and the Canadian Armed Forces a “harassment-free environment open to all

---

<sup>156</sup> SECD, [Evidence](#), 28 November 2016, Lieutenant-General Michael Hood.

<sup>157</sup> Office of the Auditor General of Canada, “[Report 5 – Canadian Armed Forces Recruitment and Retention – National Defence](#),” *2016 Fall Reports of the Auditor General of Canada*.

<sup>158</sup> Ibid.

<sup>159</sup> SECD, [Evidence](#), 21 September 2016, General Jonathan Vance.

Canadians.”<sup>160</sup> Yet, “harassment-free” does not directly translate to a reflection of Canada’s diverse and multicultural population. Like our allies, the Canadian military has long struggled to meet its targets for indigenous populations and visible minorities. As of February 2016, aboriginal peoples represented 2.5% of the military while visible minorities represented 6.5% - despite targets of 3.4% and 11.8% respectively.<sup>161</sup>

The Fall 2016 Report of the Auditor General examining Canadian Armed Forces recruitment and retention found that the military lacked a “comprehensive plan to attract more applicants” including “Aboriginal peoples and visible minorities.”<sup>162</sup> A new culture is needed to prioritize the diversification of the Canadian Armed Forces and this leadership must start with the Chief of Defence Staff and each divisional commanders.

In its response to the report, the Department of National Defence indicated that in 2017, “[t]he Canadian Armed Forces will stand up a full-time team called the Recruiting and Diversity Task Force, which will be dedicated to developing, planning, and executing activities aimed at increasing diversity group levels in the Canadian Armed Forces.”<sup>163</sup> While the striking of a Task Force is a step in the right direction, much more remains to be done, particularly in terms of taking concrete steps to diversify the Canadian Armed Forces to reflect Canada’s multicultural population and to attract more women to join the Canadian Armed Forces through a comprehensive and inclusive recruitment policy. The committee recommends:

**Recommendation 30:**

That the Government of Canada ensure that the Canadian Armed Forces adhere to its obligations under the *Employment Equity Act* by identifying and eliminating barriers to the appropriate representation of women, indigenous populations and visible minorities; and that it provide to Parliament a progress report on the work of the Recruiting and Diversity Task Force before 31 December 2017.

---

<sup>160</sup> SECD, [Evidence](#), 30 May 2016, the Honourable Harjit Singh Sajjan.

<sup>161</sup> Bruce Campion-Smith, [“Canada’s top general launches push to recruit women,”](#) *The Toronto Star*, 19 February 2016.

<sup>162</sup> Office of the Auditor General of Canada, [“Report 5 – Canadian Armed Forces Recruitment and Retention – National Defence,”](#) *2016 Fall Reports of the Auditor General of Canada*.

<sup>163</sup> Office of the Auditor General of Canada, [“Report 5 – Canadian Armed Forces Recruitment and Retention – National Defence,”](#) *2016 Fall Reports of the Auditor General of Canada*.

## **SPECIAL OPERATIONS FORCES**

---

Canada fields a Special Operations Forces Command (CANSOFCOM) to contribute to military operations across the full spectrum of conflict. Special Operations Forces must be ready to deploy quickly to all points of Canada's national territory as well as overseas on all types of military missions, where and when required. Special Operations Forces are often the lead element in Canada's contribution to the fight against terrorism. The Special Operations Forces Command has been an integral component of military operations in Afghanistan and today also contributes forces to the coalition campaign against terrorist groups in Iraq.

CANSOFCOM is currently organized into a headquarters element and five units:

- 1) Joint Task Force 2 (JTF 2);
- 2) the Canadian Special Operations Regiment (CSOR);
- 3) 427 Special Operations Aviation Squadron (SOAS);
- 4) the Canadian Joint Incident Response Unit – Chemical, Biological, Radiological and Nuclear (CJIRU-CBRN); and,
- 5) the Canadian Special Operations Training Centre (CSOTC).

Presently, 200 members of the special operation forces are deployed in Iraq to support the battle against ISIS in Mosul. According to the Chief of Defence Staff, General Vance: "The geography changed somewhat and the partners changed somewhat, That is, we went from mentoring, training, advising and assisting Kurds to other Iraqi security forces."<sup>164</sup> The media report confirmed that the government added a "helicopter detachment to transport and resupply those soldiers as well as a 50-person intelligence unit, and kept two surveillance planes and a refuelling aircraft in the region."

It will be essential for the Government to continue to invest in the Special Operations Forces Command as a priority.

The versatility of the Command and the multiple types of operations to which it contributes makes it essential to ensure that Canada's Special Forces soldiers are effectively equipped and that the Command is built to a strength-level which enables it to respond to multiple emergencies and tasking as may be required.

The committee will conduct a full review of the Special Operations Forces in a future report.

---

<sup>164</sup> <http://news.nationalpost.com/news/world/canadian-troops-operating-in-east-mosul-as-mission-extended-to-june-2>

## **APPENDIX A - OPEN LETTER TO THE PRIME MINISTER FROM FORMER AIR FORCE COMMANDERS**

---

OTTAWA, Feb. 23, 2017 /CNW/ - This is the content of an open letter from Former Air Force Commanders to the Prime Minister.

Dear Prime Minister,

As former commanders of Canada's air force, we respectfully but urgently ask that your government not proceed with the plan to purchase a fleet of Super Hornet aircraft as an interim measure pending the eventual replacement of our venerable CF-18 fighters. It is our firm belief that the interim strategy is ill-advised, costly and unnecessary. Most important, it would significantly impair the Royal Canadian Air Force for years to come and ultimately damage the nation's defence posture. The situation is complex, but our call for dropping the Super Hornet buy is based on some compelling facts, which we offer for your consideration.

First, we have serious misgivings about the use of a "capability gap" as the basis for your interim plan. Your government's newly created policy calling for the Royal Canadian Air Force to meet its NATO and NORAD treaty obligations concurrently does not reflect a real and sudden change in the strategic situation. In our experience, it has been decades since Canada had sufficient fighter aircraft to meet all our commitments simultaneously. Over the years the air force, by judiciously balancing strategic risks and available resources, has managed its operational contributions reasonably well. We certainly welcome any initiative that promises to close the longstanding capability gap, but purchasing eighteen Super Hornet aircraft would in fact exacerbate the gap in the near to mid-term by imposing a heavy burden on the RCAF's existing resources without producing a meaningful increase in fighter availability.

Although the Super Hornet does have some commonality with our current CF-18s, it is a different airplane, requiring its own training system for pilots and technicians, as well as new flight simulators, logistic support and maintenance organizations specific to the Super Hornet. The air force would have to draw personnel from the existing CF-18 fighter fleet (usually its most experienced people) to help bring into service a new and more complex fleet of fighter aircraft. But that would not be enough. It would be necessary to recruit, train and qualify several hundred new technicians and dozens of pilots. Recent experience indicates that the RCAF would face difficulty in achieving this; it can take four to five years from recruitment to produce fully trained, operationally ready pilots and specialists for advanced fighter aircraft. We foresee that bringing in an interim fleet would create serious practical problems of this kind.

Quite apart from such technical issues, we are aware that buying, operating and supporting an interim fleet of Super Hornets would be an expensive proposition, with cost estimates ranging from \$5-\$7 billion. We therefore ask that your government seek a better way of keeping the RCAF operationally effective until its fleet of CF-18s is replaced with a modern fighter.

To this end, we respectfully recommend that three important initiatives be undertaken.

First, the RCAF should be given the necessary resources to conduct an aggressive recruiting and training process to eliminate existing personnel shortfalls and to provide for the interim period leading to CF-18 replacement.

Second, if your government feels compelled to acquire additional fighters for the interim, it should seriously examine the prospect of purchasing so-called legacy Hornets (i.e. basically the same as our current CF-18s) that are increasingly becoming available as Canada's partner nations replace their older Hornet fleets with the F-35. For example, both the United States Navy and the Royal Australian Air Force will have surplus F-18s that are very close in configuration to our own. These would require very little modification to make them essentially identical to the CF-18, having the same operational effectiveness and excellent safety record as today's fleet. The capability exists in the Canadian aerospace industry to do the necessary modifications. The acquisition cost would be a fraction of a Super Hornet buy. Of critical importance, all the training, logistics and infrastructure needed to support the additional CF18s are already in place, and the larger CF-18 fleet would fill the operational capability gap in the interim. All of this would be achieved without the cost, delay and disruption of burdening the RCAF with a second fleet of fighters.

Finally, and emphatically, we urge the government to proceed without further delay to implement the open and fair competition that you promised for replacement of our CF-18s. Completing this within the next few years is entirely feasible, and it would allow for a faster, more effective and much less costly transition to full operational service by the CF-18's eventual replacement.

We offer these recommendations based on our collective experience of many years of serving Canada's air force, with the sole purpose of bringing to your attention some important realities regarding the future of the RCAF and the nation's defence. We look to you for wisdom in resolving the matters that we have placed before you.

Sincerely,

Lieutenant-General (Ret'd) Larry Ashley  
Lieutenant-General (Ret'd) Yvan Blondin  
Lieutenant-General (Ret'd) Lloyd Campbell  
Lieutenant-General (Ret'd) Bill Carr  
Lieutenant-General (Ret'd) André Deschamps  
Lieutenant-General (Ret'd) Dave Huddleston  
Lieutenant-General (Ret'd) Dave Kinsman  
Lieutenant-General (Ret'd) Steve Lucas  
General (Ret'd) Paul Manson  
Lieutenant-General (Ret'd) Don McNaughton  
Lieutenant-General (Ret'd) Ken Pennie  
Lieutenant-General (Ret'd) Fred Sutherland  
Lieutenant-General (Ret'd) Angus Watt

SOURCE Former Air Force Commanders

## APPENDIX B - DEFENCE ACQUISITION GUIDE 2016

---

### NEW INITIATIVES

- (i) [CC-115 Buffalo Primary Air Vehicle Repair and Overhaul;](#)
- (ii) [CC-138 Twin Otter Primary Air Vehicle Repair and Overhaul;](#)
- (iii) [Leopard 2 Family of Vehicles In-Service Support Contracts;](#)
- (iv) [Sleeping Bag System Contract;](#)
- (v) [Armoured Heavy Support Vehicles System Sustainment;](#)
- (vi) [Light Utility Vehicle Wheeled Sustainment;](#)
- (vii) [Mine Resistant Ambush Protected Buffalo and Cougar Vehicle Sustainment;](#)
- (viii) [Non-Combatant Classification Society - Classification Society Support to DND's Non-Combatant Fleet;](#)
- (ix) [Halifax-Class Shipyard Contract-East;](#)
- (x) [Halifax-Class Shipyard Contract-West;](#)
- (xi) [Light Armoured Vehicle III Upgrade Part 2;](#)
- (xii) [Light Force Enhancement;](#)
- (xiii) [Modular Pack System;](#)
- (xiv) [Pistol Replacement;](#)
- (xv) [Future Family of Unmanned Ground Vehicles;](#)
- (xvi) [Fighter Lead-in Training;](#)
- (xvii) [Naval Reserve Boat – Training;](#)
- (xviii) [Containerized Systems;](#)
- (xix) [Individual Protective Ensemble;](#)
- (xx) [Sensitive Equipment Decontamination System;](#)
- (xxi) [Chemical Biological Radiological Nuclear Information Management;](#)
- (xxii) [Combined Chemical Biological Detection Identification and Monitoring;](#)
- (xxiii) [Chemical, Biological, Radiological and Nuclear Aerial Reconnaissance;](#)
- (xxiv) [Armament Loader Modernization;](#)
- (xxv) [Royal Canadian Air Force Footwear Project;](#)
- (xxvi) [CC144 Consolidation Project;](#)
- (xxvii) [Remote Mine-hunting and Disposal System;](#)
- (xxviii) [Five-Eyes Collaborative Environmentality;](#)
- (xxix) [Extreme Pressure Detonics Chamber;](#)
- (xxx) [Rocket and Missile Systems Modeling & Simulation;](#)
- (xxxi) [Force Anti-Submarine Warfare;](#)
- (xxxii) [Modular Biological Containment Facility;](#)
- (xxxiii) [Electro-Optic/Infrared Warfare;](#)
- (xxxiv) [Space-based Maritime Domain Awareness;](#)
- (xxxv) [Over the Horizon Radar;](#)
- (xxxvi) [Canadian Arctic Underwater Sentinel Experimentation;](#)
- (xxxvii) [Tasking, Collection, Processing, Exploitation, and Dissemination; and](#)
- (xxxviii) [Large Scale Acoustic Resonance Mixer.](#)

## DEFENCE ACQUISITION GUIDE 2016

### NOT INCLUDED

1. [Fixed-Wing Search and Rescue Aircraft Replacement;](#)
2. [Arctic and Offshore Patrol Ship;](#)
3. [Naval Remote Weapon Station;](#)
4. [Maritime Satellite Communications Upgrade;](#)
5. [Enhanced High Readiness;](#)
6. [84mm Ammunition;](#)
7. [1 CFFTS Tactical Mission Training System Replacement;](#)
8. [Maritime Next Generation Communications Suite;](#)
9. [CF-188 Defensive Electronic Warfare Suite;](#)
10. [CF-188 Follow-on Operation Flight Program;](#)
11. [Royal Canadian Air Force Aerial Fire Fighting Vehicle;](#)
12. [Aerodrome Support Equipment;](#)
13. [On-Scene Control Emergency Response Modernization;](#)
14. [Tactical Observer Fire Control System Upgrade;](#)
15. [Common Remote Weapon System;](#)
16. [LAV OPV Crew Commander Independent Viewer;](#)
17. [RDX Replacement;](#)
18. [Demolition Modernization Project;](#)
19. [Victoria Class AN/BQQ-10 Sonar Follow-On Technical Support In-Service Support Contract;](#)
20. [North Warning System Operations and Maintenance Contract;](#)
21. [Fragmentation Vest Contract;](#)
22. [Contracted Airborne Training Services;](#)
23. [Victoria Class Submarine Fire Control System In-Service Support Contract;](#)
24. [Virtual Integrated Shipboard Information Networks;](#)
25. [Polar Communications and Weather;](#)
26. [Canadian Forces Health Information System;](#)
27. [Enhanced Information Technology Infrastructure;](#)
28. [Secure Configuration Management;](#)
29. [Royal Canadian Air Force Simulation Implementation Project;](#)
30. [Improved Trail Snowshoe;](#)
31. [Sea King T58 Engine Contract;](#)
32. [SONOBUOYS AN/SSQ 62E DICASS Contract;](#)
33. [Signature Collection and Management Equipment;](#)
34. [Professional Support for Tactical Edge Cyber Command and Control;](#)
35. [Test, Analysis and Development Services in the Field of Injury, Biokinetics, Small Arms; and Effects and Personal Protection;](#)
36. [Ocean-going research capability; and](#)
37. [Simulators and Trainers Maintenance Support Contract.](#)

## APPENDIX C - CURRENT NAVAL CAPABILITIES

---

### Frigates



HMCS Calgary

Source: Royal Canadian Navy

The 12 Canadian-built Halifax-class multi-role patrol frigates are considered the backbone of the Royal Canadian Navy (RCN). The ships were originally designed for anti-submarine warfare and anti-surface warfare, primarily in the open ocean environment.

The role of the Halifax-class has changed. Current and evolving maritime threats are faster, stealthier, more maneuverable, and shifting from the open ocean to the littoral (near-shore) environment. The littoral environment poses challenges to sensors and weapons systems due to higher traffic density and proximity to shore-based threats. In addition, ships now face asymmetrical threats, such as attacks from smaller, more maneuverable vessels that were not envisaged at the time of the ships' design.

Innovations in procedures and tactics have enabled the frigates to operate effectively in the new threat environment, despite equipment limitations. However sensor and weapons enhancements are needed in order to enhance the ships' ability to deal with these new threats into the future. The Halifax-class ship's homeports are Esquimalt, British Columbia, and Halifax, Nova Scotia. The current Halifax-class ships are:

- HMCS *Halifax* (330)
- HMCS *Vancouver* (331)
- HMCS *Ville de Québec* (332)
- HMCS *Toronto* (333)
- HMCS *Regina* (334)
- HMCS *Calgary* (335)
- HMCS *Montreal* (336)
- HMCS *Fredericton* (337)
- HMCS *Winnipeg* (338)
- HMCS *Charlottetown* (339)
- HMCS *St John's* (340)
- HMCS *Ottawa* (341)



## Submarines



HMCS Corner Brook

Source: Royal Canadian Navy

The Victoria-class long range patrol submarines are the Navy's "special forces". These stealthy submarines are well armed and capable of patrolling over vast distances, while their flexibility allows them to perform a wide range of unique naval missions.

Acquired from the Royal Navy in the 1990s, the Victoria-class submarines can operate in the Arctic, Pacific and Atlantic approaches to Canada and significantly extend the Navy's tactical and strategic capabilities.

Specifications:

Speed: 12 knots (surfaced), 20 knots (submerged)

Patrol Endurance: approximately 8 weeks.

Complement: 48 crew and 5 trainees.

Driving Depth: > 200 metres

The Victoria-class submarine's homeports are Esquimalt, British Columbia, and Halifax, Nova Scotia. The current Victoria-class submarines are:

HMCS Victoria (876)

HMCS Windsor (877)

HMCS Corner Brook (878)

HMCS Chicoutimi (879)

## Maritime Coastal Defence Vessels (MCDVs)



HMCS Whitehorse conducts maneuverability exercises

Source: Royal Canadian Navy

The Kingston-class Maritime Coastal Defence Vessels (MCDVs) are multi-role minor war vessels with a primary mission of coastal surveillance and patrol including general naval operations and exercises, search and rescue, law enforcement, resource protection and fisheries patrols.

Launched between 1995 and 1998, these ships are very flexible. Several types of mission specific payloads can be added to allow for rapid role change from one mission type to another such as a mechanical minesweeping system, a route survey system, and a bottom object inspection vehicle.

The 12 Kingston-class MCDVs are crewed primarily by Naval Reservists and are divided equally between both coasts.

### **Specifications:**

**Displacement:** 970 tonnes (full load)

**Length:** 55.3 metres

**Beam:** 11.3 metres

**Draught:** 3.4 metres




**Engine:** Diesel-electric: Two Jeumont DC electric motors each drive a Lips azimuthing thruster with a five bladed propeller, powered by four 600V AC alternators driven by Wartsila SCAM V12 Diesels.

The Kingston-class ship's homeports are Esquimalt, British Columbia, and Halifax, Nova Scotia.





The current Kingston-class ships are:





- HMCS *Kingston* (700)
- HMCS *Glace Bay* (701)
- HMCS *Nanaimo* (702)




- HMCS *Edmonton* (703)
- HMCS *Shawinigan* (704)
- HMCS *Whitehorse* (705)
- HMCS *Yellowknife* (706)
- HMCS *Goose Bay* (707)
- HMCS *Moncton* (708)
- HMCS *Saskatoon* (709)
- HMCS *Brandon* (710)
- HMCS *Summerside* (711)

LIST OF AIRFORCE AIRCRAFT <sup>165</sup>	
<p>CF 18s Fighter Jets 77</p> 	<p>The CF-188 is a multipurpose, high-performance twin-engine fighter that can handle both air-to-air (air defence, air superiority, combat air patrol) and air-to-ground (close air support, battlefield air interdiction) combat</p>
<p>CC-115 Buffalos 6 (Based in Comox BC)</p> 	<p>One of Canada's primary search and rescue (SAR) aircrafts, the CC-115 Buffalo will fly in almost any weather. The agile Buffalo can take off and land on even the most rugged terrain and in areas as short as a soccer field</p>
<p>CC-130 Hercules Transports Planes 13 based at 8 Wing Trenton, ON; 14 Wing Greenwood, NS; 17 Wing Winnipeg, MB</p> 	<p>A four-engine turboprop tactical transport aircraft with a rear cargo ramp, rugged landing gear, good short-field performance and high ground clearance for engines and propellers, used for troop transport, tactical airlift (both palletized and vehicular cargo), search and rescue, air-to-air refueling, and aircrew training and qualification. Designed to operate from unimproved airstrips in an active theatre of operations.</p>

<sup>165</sup> Source : Royal Canadian Air Force

<p>CH-149 Cormorant Helicopters 14 based at 9 Wing Gander, NL; 14 Wing Greenwood, NS; 19 Wing Comox, BC</p> 	<p>Modified from the military specifications of the European EH-101 medium-lift military transport helicopter, the CH-149 includes search-and-rescue-specific equipment and physical characteristics and performance requirements to meet Canada's SAR responsibilities.</p>
<p>CH-146 Griffon 85 based at Bagotville, QC Borden, ON; Cold Lake, AB, Edmonton, AB; Gagetown, NB; Goose Bay, NL; Petawawa, ON; St. Hubert, QC; Trenton, ON; Valcartier, QC</p> 	<p>The CH-146 Griffon is a Utility Transport Tactical Helicopter (UTTH) used primarily for tactical transport of troops and material.</p>
<p>CC-130J Hercules 17 based at 8 Wing Trenton, ON</p> 	<p>It is used for troop transport, tactical airlift (both palletized and vehicular cargo) and aircrew training and qualification. It is designed to operate from rudimentary airstrips in an active theatre of operations. The CC-130J has the same look as its predecessors, but in fact is a greatly improved airplane. The new "Hercs" fly faster, higher, and farther, carrying heavier loads while burning less fuel. They deliver cutting edge technology to provide the Canadian Forces with a cost-effective, operationally-proven tactical airlift capability.</p>
<p>CC-138 Twin Otter 4 based in Yellowknife, NWT</p> 	<p>The CC-138 is used in transport and support roles to the Canadian Forces' northern operations and in search and rescue (SAR) missions. It can carry up to 20 passengers or 2,999 kg of payload, and has a range of 1,427 km.</p>

<p>CC-144 Challenger 4 based in Ottawa</p> 	<p>The CC-144 Challenger, DND's twin-engine, long-range executive jet, offers rapid air transportation to Canadian and international VIPs. With a range of up to 5,930 km and a maximum speed of Mach 0.83, the Challenger can quickly deliver passengers almost anywhere in the world.</p>
<p>CC-150 Polaris (Airbus A-310) 5 based at Trenton, ON</p> 	<p>The CC-150 Polaris (Airbus A-310) is a multi-purpose, twin-engine, long-range jet aircraft that can be converted for passenger, freight or medical transport and air-to-air refueling (or any combination of these configurations). The Polaris can reach a speed of up to Mach 0.84 (1029 km/h) carrying a load of up to 32,000 kilograms (70,560 pounds). Passenger loads range from 28 to 194 people, depending on the particular aircraft tail number and configuration.</p>
<p>CC-177 Globemaster III 5 based at Trenton, ON</p> 	<p>To illustrate the power of these aircraft, one CC-177 can haul three CH-146 Griffon helicopters with refuelling tanks, or one Leopard 2 tank, or as many as 102 paratroopers. But perhaps most useful of all, the CC-177's ability to fly long distances and land in remote airfields makes it a premier transporter for military, humanitarian and peacekeeping missions.</p>
<p>CH-147F Chinook Helicopter 15 based at Canadian Forces Base Petawawa, Ontario</p> 	<p>The CH-147F Chinook is an advanced, multi-mission, medium to heavy-lift helicopter. Its primary mission is the tactical transport of equipment and personnel during domestic or deployed operations.</p>
<p>CP-140 Aurora 18 based at 19 Wing Comox, British Columbia and 14 Wing Greenwood, Nova Scotia</p>	<p>As a "command, control, communications, computers, intelligence, surveillance and reconnaissance" (C4ISR) platform, the Aurora performs domestic and international operations across a wide variety of disciplines. This includes domestic surveillance of the Canadian Atlantic, Pacific and Arctic Oceans, as well as anti-surface warfare, maritime and overland intelligence, surveillance and reconnaissance (ISR), strike coordination, and search and rescue (SAR) missions. It also provides vital support to other</p>

	<p>government agencies in combating illegal immigration, fishing, polluting, or drug trafficking, as well as assisting with disaster relief.</p>
<p>CH-124 Sea King 27 based at 12 Wing Shearwater, NS and Patricia Bay, BC</p> 	<p>Although one of the oldest Aircraft in the Royal Canadian Air Force, the Sea King is also one of its busiest. It has seen service in a variety of international and domestic roles in recent years including the Persian Gulf, Somalia, Yugoslavia, East Timor, Manitoba Floods, and Haiti.</p>
<p>CH-148</p> 	<p>The CH-148 Cyclone will replace the CH-124 Sea King as Canada's main ship-borne maritime helicopter. The Cyclone will conduct Surface and Subsurface Surveillance and Control, utility and search and rescue missions. It will also provide tactical transport for national and international security efforts. This twin-engine helicopter is compatible with the latest high-tech naval frigates and includes several new safety features. The Cyclone has a day-and-night flight capability, and can fly in most weather conditions in temperatures ranging from -51°C to +49°C. With a maximum cruise speed of 250 km/h, the CH-148 is approximately 10% faster than a Sea King. The Cyclone can also fly 450 km without refueling.</p>
<p>Trainer Aircrafts</p> <p><b>CT-114 Tutor</b> <b>CT-142 Dash-8</b> <b>CT-155 Hawk</b> <b>CT-156 Harvard II</b> <b>CH-139 Jet Ranger</b></p>	<p>Trainer aircraft are used to train novice aircrew in their roles of operating various types of aircraft, including fighters, helicopters and multi-engine aircraft. Several of the training aircraft used by the Canadian Armed Forces actually belong to companies that are contracted to provide training. The Tutor aircraft, which is primarily used by the Snowbirds aerobatic team, is categorized as a trainer because it was the Canadian Armed Forces' primary jet trainer until the year 2000. The alpha-numerical designation for trainers begins with CT.</p>

## APPENDIX D – LIST OF WITNESSES

---

### Monday, May 30, 2016

*Global Affairs Canada*  
*United Nations Department of  
Peacekeeping Operations*

The Honourable Harjit Singh Sajjan, P.C., M.P., Minister of  
National Defence  
Mark Gwozdecky, Assistant Deputy Minister, International  
Security and Political Affairs  
Hervé Ladsous, Head of Department

### Monday, June 13, 2016

The Honourable Peter MacKay, P.C., former Minister of  
National Defence  
The Honourable David Pratt, P.C., former Minister of National  
Defence

### Monday, June 20, 2016

*Canadian Defence and Foreign  
Affairs Institute*  
*As an individual*  
*Embassy of Sweden to Canada*

Colin Robertson, Vice-President, and Fellow, School of  
Public Policy, University of Calgary  
Elinor Sloan, Professor of International Relations,  
Department of Political Science, Carleton University  
H.E. Per Sjögren, Ambassador

*Conference of Defence  
Associations Institute*

Major General (Retired) Daniel Gosselin, Chair of the Board

*As individuals*

Colonel (Retired) Charles Davies  
Colonel (Retired) Michael P. Cessford

*Conference of Defence  
Associations*

Tony Battista, CEO

*As an individual*

Brigadier-General (Retired) Jim Cox

*Conference of Defence  
Associations*

Vice-Admiral (Retired) Denis Rouleau, Chair

*As individuals*

Dan Ross, Former Assistant Deputy Minister (Materiel),  
National Defence  
Major-General (Retired) James R. Ferron, Vice-President,  
Capability Development, Carillon Canada Inc.  
Vice-Admiral (Retired) Glenn Davidson, Former Ambassador  
of Canada to Syria and Afghanistan

### Monday, September 19, 2016

*As individuals*

Jane Boulden, Associate Dean of Arts, Royal Military College  
of Canada (by video conference)  
Walter Dorn, Professor and Chair, Master of Defence Studies  
Programme, Royal Military College of Canada and  
Canadian Forces College  
Lieutenant-General (Retired) D. Michael Day, Fellow,  
Canadian Global Affairs Institute

Lieutenant-General (Retired) Charles Bouchard

Lieutenant-General (Retired) the Honourable Roméo Dallaire

Lieutenant-Colonel (Retired) David Last, Associate Professor, Royal Military College  
David Bercuson, Director, Centre for Military, Security and Strategic Studies, University of Calgary (by video conference)

*Naval Association of Canada  
As an individual*

Vice-Admiral (Retired) Drew Robertson  
James A. Boutilier, Adjunct Professor, Pacific Studies, University of Victoria

*Navy League of Canada*

Navy Captain (Retired) Harry Harsch, Vice President, Maritime Affairs

**Tuesday, September 20, 2016**

*Office of the Auditor General of Canada*

Michael Ferguson, Auditor General of Canada

*Office of the Ombudsman for the Department of National Defence and the Canadian Forces*

Gordon Stock, Principal  
Gary Walbourne, Ombudsman

*The African Centre for the Constructive Resolution of Disputes (ACCORD)*

Kwezi Mngqibisa, Coordinator and Consultant, Somalia Initiative (by video conference)

*As an individual  
Royal Canadian Legion*

Major General (Retired) Lewis Mackenzie  
Major General (Retired) Richard Blanchette, Chairman, Defence and Security Committee  
Charls Gendron, Secretary, Defence and Security Committee  
Major (Retired) Wayne Mac Culloch, National President

*Canadian Association of Veterans in United Nations Peacekeeping  
Canadian Peacekeeping Veterans Association*

Lieutenant General (Retired) Louis Cuppens, Special Advisor

*Royal Norwegian Embassy in Ottawa*

Her Excellency Anne Kari Hansen Ovind, Ambassador of the Kingdom of Norway

*As an individual*

Carolyn McAskie, Former Special Representative of the Secretary General (SRSG) and Head of the United Nations Peacekeeping Mission in Burundi (ONUB)

**Wednesday, September 21, 2016**

*National Defence and the Canadian Armed Forces*

Major-General Jean-Marc Lanthier, Commander, Canadian Army Doctrine and Training Centre

*Parliamentary Centre  
CANADEM  
National Defence and the Canadian Armed Forces*

Lieutenant-Colonel Brian Healey, Commander, Peace Support Training Centre  
Petra Andersson-Charest, Director of Programs  
Paul LaRose-Edwards, Executive Director  
General Jonathan Vance, Chief of the Defence Staff

Lieutenant-General Christine Whitecross, Commander, Military Personnel Command



*National Defence and the  
Canadian Armed Forces  
Reserves 2000  
Institut militaire de Québec*

Commodore Brian Santarpia, Director General, Plans,  
Strategic Joint Staff  
Lieutenant-Colonel (Retired) John Selkirk, Executive Director  
Brigadier General (Retired) Richard Giguère, President (by  
video conference)

**Monday, November 14, 2016**

*As an individual  
Air Force Association of Canada*

David Perry, Senior Analyst, Canadian Global Affairs Institute  
Lieutenant-General (Retired) André Deschamps, Honorary  
National President

**Monday, November 21, 2016**

*National Defence and the  
Canadian Armed Forces*

Major-General Paul Bury, Chief Reserves

Brigadier-General Rob Roy MacKenzie, Chief of Staff, Army  
Reserve

**Monday, November 28, 2016**

*National Defence and the  
Canadian Armed Forces*

Lieutenant-General Michael Hood, Commander, Royal  
Canadian Air Force

Brigadier-General Michel Lalumiere, Director General, Air  
Force Development

Major-General Christian Juneau, Deputy Commander,  
Canadian Army

Brigadier-General Rob Roy MacKenzie, Chief of Staff, Army  
Reserve

*Public Safety Canada*

Lori MacDonald, Assistant Deputy Minister, Emergency  
Management and Programs Branch

Stéphanie Durand, Director General, Policy and Outreach

*National Defence and the  
Canadian Armed Forces*

Major-General William Seymour, Chief of Staff, Operations,  
Canadian Joint Operations Command

Brigadier-General Michel Lalumiere, Director General, Air  
Force Development

*Canadian Coast Guard*

Mario Pelletier, Deputy Commissioner, Operations

**Monday, December 12, 2016**

*Office of the Parliamentary Budget  
Officer*

Jean-Denis Fréchette, Parliamentary Budget Officer

Mostafa Askari, Assistant Parliamentary Budget Officer

Jason Jacques, Director, Economic and Fiscal Analysis

Peter Weltman, Senior Director, Costing and Program  
Analysis

*National Defence and the  
Canadian Armed Forces*

Brigadier-General Michael Nixon, Commander, Joint Task  
Force North (by video conference)

Lieutenant-Colonel Luis Carvallo, Commanding Officer, 1st  
Canadian Ranger Patrol Group (by video conference)