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DEPARTMENT OF NATIONAL DEFENCE AND THE CANADIAN ARMED FORCES

2019-20

DEPARTMENTAL RESULTS REPORT



The Honourable Harjit S. Sajjan, PC, OMM, MSM, CD, MP
Minister of National Defence

Canada

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Minister's message



As Minister of National Defence, it is my privilege to present the Departmental Results Report for fiscal year 2019-20. Throughout the year, Defence personnel continued to advance the initiatives in Canada's 20-year defence policy, *Strong, Secure, Engaged* while remaining ready to assist Canadians when called upon.

As we approached the end of 2019-20, the World Health Organization declared the COVID-19 outbreak a global pandemic. Defence, like the rest of the Government of Canada, put in place exceptional measures to keep our personnel healthy and able to deliver critical operations and serve Canadians. From the start, Canadian Armed Forces (CAF) members were part of Canada's fight against COVID-19 when they helped bring Canadians home from China, Japan and the United States. And they continued this fight into the next fiscal year when they answered the call to help Ontario and Quebec long-term care homes that had major outbreaks of the virus.

When Canadians need our women and men in uniform, they are there. That was the case in 2019, when New Brunswick, Quebec and Ontario were impacted by floods, when Nova Scotia was dealing with the aftermath of Hurricane Dorian, and when Pikangikum First Nation members needed to be evacuated due to heavy smoke from forest fires. In early 2020, they were in Newfoundland and Labrador when a major snow storm led to states of emergency in several communities.

Canada's friends and allies can also count on our Armed Forces. In 2019-20, they continued to defend North America in partnership with the United States military, and were deployed to more than 20 peace and security operations around the world – helping Canada remain secure and exerting a positive influence on the global stage.

With the right care, support and capabilities, our people are better able to carry out their difficult missions. The array of projects delivered since the last results report included changes to the Reserve Force pay structure, new training tools and services for members and their families as they transition from active duty to post-military life through the CAF Transition Group, final delivery of the upgraded Light Armoured Vehicle III, and builder trials for the future Her Majesty's Canadian Ship *Harry DeWolf*.

The Department of National Defence and the Canadian Armed Forces always stand ready to serve. I am proud of all that the military and civilian Defence Team accomplished during the last fiscal year. In this report, you will find more information about the wide range of their activities on behalf of Canada and Canadians.

Original signed by:

The Honourable Harjit S. Sajjan, PC, OMM, MSM, CD, MP
Minister of National Defence

Results at a glance and operating context

Operating Context

National Defence policies and activities are informed by the evolving security context in which the Canadian Armed Forces (CAF) operates. *Strong, Secure, Engaged: Canada's Defence Policy* (SSE), identifies three broad trends that continue to shape the modern security environment:

1. The evolving balance of power;
2. The changing nature of conflict; and
3. The rapid evolution of technology.

These trends therefore continue to shape the context in which the Department of National Defence (DND) and the CAF must operate. A common realization from these trends is that many of the modern threats faced by Canada are diffuse and transcend national borders undermining the security once provided by Canada's geography. This requires Canada's engagement to help promote security and stability abroad.

Against the backdrop of this ever-evolving operating context, DND and the CAF are squarely focused on implementing SSE. The effective implementation of this comprehensive, 20-year plan is essential to ensuring that the CAF is well prepared to execute its mandate and meet Canada's defence needs. It will also lead to concrete improvements in the care and services we provide to our people and is consistent with SSE's people first focus. Taken together, these efforts will ensure that Canada can continue to field an agile, multipurpose and combat-ready military that can conduct the full spectrum of military operations simultaneously across multiple theaters of operations.

For more information regarding the Operating Context, please see [Strong, Secure, Engaged: Canada's Defence Policy](#)ⁱⁱ (SSE) – Chapter 4 – Global Context.

Results at a glance

Canada's vision for Defence – Strong at home, Secure in North America, Engaged in the world

In Fiscal Year (FY) 2019-20, we delivered results for Canadians and made substantial progress on broader departmental and Government of Canada priorities. The department continues to **anticipate** emerging threats and challenges, **adapt** to changing circumstances, and **act** effectively in cooperation with our allies and partners.

We took on leadership roles, both abroad and at home, and promoted Canadian values of peace, human rights and democracy. Progress was made on numerous fronts and a wide range of projects have been delivered to better ensure that we are prepared.

Below are some highlights of the Defence Team's achievements over the past FY. For more information on the department's plans, priorities, and results achieved, see the "[Results: what we achieved](#)" section of this report.

Total actual full-time equivalents (FTE)'s (Military/Regular Force and civilians): 93 252

Total actual spending: \$22,839,438,337

Operations

The CAF conducts [Military operations](#)ⁱⁱⁱ on behalf of the Government of Canada. To this end, the CAF endeavours to detect, deter and defend against threats to or attacks on Canada and North America and provides supports to global peace and stability. Further, the CAF's operations can also include emergency response, search and rescue, humanitarian assistance and support to law enforcement.

Search and Rescue

The CAF Search and Rescue (SAR) work with other government partners and search and rescue volunteers to respond to incidents within Canada. In FY 2019-20:

- CAF coordinated responses to 8 611 SAR incidents across the country;
- CAF assets were tasked to conduct 568 SAR operations across Canada; and
- The [418 Squadron was re-established](#)^{iv} as a search and rescue operational training unit.

Canada's North

Canada has renewed its focus on surveillance and control of Canadian territory and approaches, particularly its Arctic regions. The CAF maintains a year-round presence in Canada's North. In addition, several exercises and sovereignty operations are held in the Arctic.

[Operation NANOOK](#)^v occurs every year across Canada's Northern most regions.

In FY 2019-20, Operation NANOOK focused on the following activities:

- Training for High Arctic winter operations which included ground and underwater activities, providing complex logistical support, improving our readiness and demonstrating our ability to sustain forces and operate in the region;
- Wildfire evacuation training; and
- Naval presence along and monitoring of the Northwest Passage.

More information on Operation NANOOK can be found in [Departmental Result 1.3](#) of this report.

Canada and North America

[Operation LIMPID](#)^{vi} is the CAF year round surveillance and presence operations of Canada's territories and approaches in order to achieve all-domain situational awareness of the maritime, air, terrestrial, space, and cyber domains. This operations allows the CAF to better predict, monitor and respond to crisis in addition to contributing to the assertion of sovereignty on behalf of the Government of Canada.

- In FY 2019-20, approximately 470 CAF personnel supported 39 missions, which included CP-140 surveillance, presence and control.

[Operation LENTUS](#)^{vii} is the CAF's contingency plan to support humanitarian assistance and the disaster response of provincial and territorial authorities in the case of a major natural disaster. There were five separate Operation LENTUS responses during FY 2019-20.

More information on Operation LIMPID and LENTUS can be found in [Departmental Result 1.1](#) of this report.

[NORAD](#)^{viii}: Provided continuous aerospace and maritime warning and aerospace control capabilities to protect and respond against threats to Canada and the United States, through the North American Aerospace Defence Command (NORAD) Agreement.

More information on NORAD can be found in [Departmental Result 1.4](#) of this report.

Central and South America

[Operation CARIBBE^{ix}](#) is Canada's contribution to a multinational campaign against transnational criminal organizations in the eastern Pacific Ocean and Caribbean Sea to help stop trafficking by organized crime:

- In FY 2019-20, Canada's involvement made a direct contribution to the interdiction of 3 817 kilograms (approximately 8 400 pounds) of cocaine and 25 kilograms (approximately 55 pounds) of illicit drugs, valued at approximately \$95.5 million United States dollars.

More information on Operation CARIBBE can be found in [Departmental Result 1.5](#) of this report.

Europe

[Operation REASSURANCE^x](#) is part of NATO assurance and deterrence measures. These measures aim to reinforce NATO's collective defence. It also shows the strength of allied solidarity. Highlights from FY 2019-20 include:

- Canada's continued contribution to NATO's [enhanced Forward Presence^{xi}](#) (eFP);
- Five CF-188 Hornets, with approximately 135 CAF members, participated in NATO enhanced Air Policing from September to December, operating from Romania. This peacetime collective defence mission aims to safeguard the integrity of NATO airspace; and
- Her Majesty's Canadian Ship (HMCS) *Fredericton* set sail for a six month deployment in January 2020, however all non-operational port visits and ceremonies were cancelled due to COVID-19.

[Operation UNIFIER^{xii}](#) is the CAF's multinational joint support military training mission to help the Security Forces of Ukraine improve and build the capability and capacity to conduct military operations across the full spectrum of conflict. In FY 2019-20:

- The CAF provided training to 6 962 Security Forces of Ukraine through 163 course serials. The focus was primarily Battalion Tactical Group and Brigade collective training, combat first aid, combat engineer training, as well as non-commissioned officer and junior officer personnel development (leadership courses); and
- The Government of Canada extended this mission until 31 March 2022.

More information on Operation REASSURANCE and UNIFER, and other operations in Europe, can be found in [Departmental Result 1.5](#) of this report.

Middle East

[Operation ARTEMIS^{xiii}](#) is the CAF's contribution to maritime security and counter-terrorism and maritime security operations in Middle Eastern and East African waters. The CAF works with its allies and partners to help stop crime in this region.

- In FY 2019-20, HMCS *Regina* seized and destroyed 9 000 kilograms (approximately 20 000 pounds) of illegal narcotics, worth just over \$4.7 million United States dollars regional wholesale value.

[Operation IMPACT^{xiv}](#) is the CAF's effort to provide training, advice, and assistance to the Iraqi security forces, and support the Global Coalition against Daesh. The CAF contributes personnel to NATO Mission Iraq. Highlights for FY 2019-20 include:

- In June 2019, the Minister of National Defence extended [command of NATO Mission Iraq until November 2020^{xv}](#) to complement our existing efforts in the Global Coalition against Daesh and to strengthen Iraqi security forces and Iraqi military education institutions so Iraqi forces can prevent the return of Daesh;
- In April 2019, a ground-breaking ceremony took place to mark the start of the [Jordan Border Road Rehabilitation project^{xvi}](#); and

- CAF regular training activities were temporarily paused, although some mission critical activities such as air sustainment operations re-commenced. Despite this temporary pause, building partner capacity efforts in Jordan and Lebanon continued.

[Operation PROTEUS^{xvii}](#) is Canada's contribution to the Office of the United States Security Coordinator (USSC).

- CAF members serve with the USSC team as part of Canada's military task force in Jerusalem. Task Force Jerusalem's aim within the team is to help the Palestinian Authority Security Forces build their capacity. The CAF members on Operation PROTEUS fill key USSC positions and are an integrated as part of the team.

More information on operations in the Middle East can be found in [Departmental Result 1.5](#) of this report.

Africa

[Operation PRESENCE^{xviii}](#) - Mali. The CAF operation that provided aeromedical evacuation assistance to the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) was successfully completed on 31 August 2019, as planned. The CAF continues to provide 5 staff officers assigned to the MINUSMA HQ in Bamako. The operation was also part of the Government of Canada's overall efforts to help set conditions for durable peace, development, and prosperity in Mali.

[Operation PRESENCE^{xix}](#) - Uganda. In August 2019, the deployment of a Tactical Airlift Detachment to Uganda in support of United Nations peace operations was announced. Since then, the CAF has provided the United Nations with episodic tactical airlift support out of Entebbe, Uganda. This commitment has been extended until July 2021.

More information on operations in Africa can be found in [Departmental Result 1.5](#) of this report.

Around the globe

[Operation PROJECTION^{xx}](#) and [Operation NEON^{xxi}](#) see our ships contribute to global security and stability. In FY 2019-20, the CAF:

- Logged 180 flight hours, deployed two maritime patrol aircraft, six ships, and approximately 800 personnel to support these efforts.

More information on current Operations can be found in [Departmental Result 1.5](#) of this report and here: [Current military operations^{xxii}](#).

Well-supported, diverse, resilient people and families

We made significant improvements in taking care of our people. We placed an unprecedented focus on building a Defence Team that is well-supported, diverse, and resilient. Highlights from FY 2019-20 include:

- Increased the Canadian Armed Forces (CAF) Regular Force by 389, the Primary Reserve by 1 314 (average paid strength), and hired an additional 705 civilian staff. This increase in capacity enables us to meet demands and progress initiatives identified in SSE;
- Marked the [first anniversary of the CAF Transition Group^{xxiii}](#);
- Improved the [Reserve Force pay structure^{xxiv}](#);
- Hosted the [third Seamless Canada roundtable^{xxv}](#) with provinces and territories;
- Announced the new [Physical Performance Strategy^{xxvi}](#);
- Continued improving the relocation experience for CAF members. This included working with the contracted service provider to improve the process for settling claims, and ongoing work with the Treasury Board Secretariat to update the policies which govern relocation;
- Continued the work necessary to update Universality of Service with the completion of the Gender-based Analysis Plus (GBA+) assessment and task testing;

- Stood up, 18 months ahead of schedule, the new Administrative Response Centre to answer CAF members' queries on Chief Military Personnel policies;
- Reviewed existing CAF policies and procedures for handling incidents of hateful conduct and the other forms of targeted discrimination prohibited by the Canadian Human Rights Act;
- Completed 85% of the recommendations of the Royal Military College of Canada Special Staff Assistance Visit Report with thirteen recommendations in progress; and
- Launched phase three of the [Veteran's Service Card](#)^{xxvii}.

In response to COVID-19, the department took unprecedented measures to safeguard the Defence Team, prevent the spread of the disease, and preserve our ability to conduct mission-essential military operations. The department undertook the following to protect the health and well-being of the Defence Team:

- Under [Operation LASER](#)^{xxviii}, created a "mobilization" plan for the COVID-19 pandemic. The plan has three priorities: support efforts to slow the spread of the virus; support vulnerable communities, especially Indigenous and in the North; and assist provinces and territories with logistics, including help for municipalities;
- Took actions to maintain 24 000 CAF members (Regular Force and Reserve Force) ready to respond to COVID-19, and ready to answer the call for humanitarian response requests whether by sending supplies, or providing assistance during floods or forest fire season – through [Operation LENTUS](#)^{xxix};
- Implemented [flexible work arrangements and leave](#)^{xxx};
- Published a [Mental Health and Coping during COVID-19](#)^{xxxi} article which provided information, resources and support to the Defence Team;
- Developed a [DND/CAF Security Guide for Teleworking during COVID-19 Response](#)^{xxxii};
- [Deferred annual rent increases](#)^{xxxiii} by one year; and
- Adjusted and extended the Annual Posting Season for the CAF.

Operation HONOUR and Addressing Sexual Misconduct

DND/CAF strives to establish and maintain a workplace free from harassment and discrimination. The CAF initiated [Operation HONOUR](#)^{xxxiv} in 2015 to prevent and address sexual misconduct in the CAF.

Through Operation HONOUR, essential work was completed in the areas of policy, procedures and, most importantly, support for those affected. With this solid foundation in place, the CAF shifted the focus of Operation HONOUR from responding to incidents, to a long-term institutional approach aimed at preventing incidents from occurring.

The [Sexual Misconduct Response Centre](#)^{xxv} (SMRC) leads all aspects of support for persons affected by sexual misconduct. It is independent from the CAF chain of command. The SMRC also provides the CAF with independent, expert guidance and recommendations to shape and evaluate policies and programs to eliminate sexual misconduct, and monitors CAF progress on this important issue.

More information about Operation HONOUR and SMRC initiatives can be found in [Departmental Result 3.3](#) of this report.

In accordance with the [2018 Fall Reports of the Auditor General of Canada – Report 5 – Inappropriate Sexual Behaviour – Canadian Armed Forces](#)^{xxvi}, we continued to strengthen our efforts to address sexual misconduct in three key areas: support for persons directly affected by sexual misconduct, provide education and training, and use of independent expert advice and guidance.

Specifically, in FY 2019-20, DND/CAF undertook the following key activities:

- Improved the processes around reporting, responding to and investigating incidents of inappropriate sexual behaviour by [clarifying definitions, direction and processes](#)^{xxxvii}, provided guidance for those responding to incidents; and [enhanced incident data collection](#)^{xxxviii};
- Developed an expertly informed, long-term culture change strategy to prevent and address sexual misconduct in the CAF, and improved support for affected persons;
- Expanded the role and mandate of the SMRC to include: providing expertise, recommendations and monitoring to guide the CAF's efforts to address sexual misconduct, and contributing to training curriculum and oversight of delivery;
- Launched a Response and Support Coordination Program for CAF members who are affected by sexual misconduct and initiated work to develop a national plan for survivor support; and
- Established a performance measurement framework for evaluating CAF efforts to address sexual misconduct, and to ensure a cycle of continuous learning and improvement.

More information about Operation HONOUR and SMRC initiatives can be found in [Departmental Result 3.3](#) in this report.

Gender-based Analysis Plus (GBA+)

[GBA+](#)^{xxxix} is a Government of Canada tool that supports the Defence Team to understand how diverse groups of women, men, and non-binary people, may experience policies, directives, programs, and operations differently. GBA+ considers identity factors such as indigeneity, sexual orientation, sex, gender, age, race, ethnicity, ability, and religion as well as the impacts of the intersectionality of identity factors. During FY 2019-20, DND/CAF:

- Continued to embed GBA+ requirements and accountabilities into our systems and processes, and to conduct GBA+ to inform the development of effective and equitable policies, directives, programs, and operations; and
- Continued to implement Canada's National Action Plan on [Women, Peace and Security](#)^{xl}, to meet Canada's commitments to the United Nations Security Council Resolutions 1325 and related resolutions.

Investments to enhance capability and capacity

The CAF need modern capabilities to succeed in a complex and constantly evolving world. The CAF must be ready and able to deliver across a spectrum of simultaneous operations – from domestic humanitarian assistance and disaster response to counter-terrorism and high intensity combat operations to peace support operations. In FY 2019-20, DND/CAF:

- Increased contracting authorities for competitive services contracts from \$1 million to \$5 million, further streamlining our procurement process. This increase allows DND/CAF to handle over 80% of contracts in-house; and
- Grew the civilian procurement workforce by 4.6%, to strengthen the capacity to manage sustainment and acquisition. The overall military and civilian procurement workforce grew by 1.5% due to challenges filling military positions.

Major equipment projects highlights from FY 2019-20 include:

- The [Fixed-Wing Search and Rescue Aircraft Project](#)^{xli}: In December 2019, Canada took delivery of the first CC-295 aircraft in Spain;
- The [Arctic and Offshore Patrol Ships Project](#)^{xlii}: Construction began for the fourth ship, the future HMCS *William Hall*. In November 2019, Canada's second Arctic and Offshore Patrol Ships was launched in Halifax, the future HMCS *Margaret Brooke*;

- The [Joint Support Ship Project](#)^{xliii}: The project progressed the finalization of the Joint Support Ship design and the early construction of blocks. The RCN celebrated a construction milestone for its future HMCS *Protecteur* with a keel laying ceremony held in January 2020;
- The [Canadian Surface Combatant Project](#)^{xliiv}: Following the selection of a starting point design and a design team in February 2019, and the award of the resulting Definition Contract and Definition Subcontract, the Project achieved substantial completion of Requirements Reconciliation in November 2019 and commenced Preliminary Design;
- The [Future Fighter Capability Project](#)^{xliiv}: The project released the Request For Proposal in July 2019 and completed the assessment of the preliminary security offers in February 2020;
- The [Medium Support Vehicle Systems Project](#)^{xliiv}: The project has delivered all 1 587 trucks and 322 trailers. 135 of 161 Armoured Protection Systems have been delivered;
- The final delivery of the upgraded [Light Armoured Vehicle III](#)^{xliiv} (LAV III): In 2019, the final Light Armoured Vehicle III Upgrade was delivered, which modernized 550 LAV III to the new LAV 6.0;
- Options Analysis was completed on the [Enhanced Satellite Communications Project – Polar](#)^{xliiv};
- [Modernize and grow our CH-149 Cormorant search and rescue fleet](#)^{xlix}: The Cormorant Mid-Life Upgrade Project entered into Definition Phase resulting in the release of a Request For Proposal in January 2020;
- [Manned Airborne Intelligence, Surveillance and Reconnaissance](#)^l: In April 2019, a contract for production of the three aircraft was awarded and implementation began. CANSOFCOM and the RCAF are enhancing members' understanding of the aircraft's avionics and capability during the project's implementation phase; and
- Implementation was started on the [Defence Cryptographic Modernization Project](#)^{li}.

For more information on major equipment projects, please see [Departmental Result 5.2](#) or visit the Department of National Defence and the Canadian Armed Forces' [Current Projects](#)^{lii} webpage.

In terms of new capabilities to **anticipate and adapt** to new threats and challenges, the CAF has prioritized cyber security, joint intelligence, surveillance, and reconnaissance platforms. These capabilities give decision makers a comprehensive picture of the operating environment. In FY 2019-20, DND/CAF:

- Launched a directive for Space operations. Space operations are the element of military power that is applied with support from, through, and operating in space;
- Declared the first [Defence Intelligence Integrated Mission Team fully operational](#)^{liii};
- Received project approval for the [Remotely Piloted Aircraft System](#)^{liiv} to enter the Definition Phase in April 2019; and
- Prioritized research and development of Arctic Joint Intelligence, Surveillance and Reconnaissance. The [All Domain Situational Awareness Science and Technology Program](#)^{liv} contributed to the development of options for enhanced domain awareness of air, maritime surface and sub-surface approaches to Canada, in particular those in the Arctic.

Defence Infrastructure and Environment

The Defence Team manages the largest infrastructure portfolio in the federal government. During FY 2019-20, the department:

- Announced the construction of a [new infrastructure project at Canadian Forces Base Bagotville](#)^{lvi}. This project includes the construction of a 13 000-m² modern and green multi-purpose facility and the development of a 23 800-m² area to be used for deployment preparation, as well as equipment storage and maintenance;

- Announced the [Energy Efficiency Project at 3 Wing Bagotville](#)^{lvii}. This project will see 60 buildings upgraded with energy efficiency measures to provide our military personnel with sustainable and efficient facilities in which to work and train. These upgrades will lower annual energy costs by about 19 percent and reduce greenhouse gas emissions by over 2 500 tonnes per year, the equivalent of taking more than 500 cars off the road;
- Invested \$9.1 million in energy efficiency projects at armouries across the country. These upgrades will lower annual energy costs and support the government's low-carbon goal by reducing greenhouse gas emissions from our buildings;
- Completed construction on the new [Jetty NJ at Canadian Forces Base \(CFB\) Halifax](#)^{lviii};
- Started construction on a [new sports facility at the Saint-Jean Garrison](#)^{lix}. This project will better support the physical fitness needs of an increasing number of CAF recruits and Garrison personnel; and
- Completed short term [runway repairs at 5 Wing Goose Bay](#)^{lx}; additional repairs were also announced.

For more information on Defence infrastructure projects, please visit the Department of National Defence and the Canadian Armed Forces' [Infrastructure Projects](#)^{lxi} webpage.

Defence Innovation

Innovative technology, knowledge, and problem solving are critical for Canada and its allies to mitigate new threats, and meet evolving defence and security needs. In this environment, our new approach to innovation has allowed us to better tap into the talent and ingenuity within our country. In FY 2019-20, the department:

- Adopted a [Sandbox challenge](#)^{lxii}. Selected innovators were invited to test and demonstrate technologies created to detect and defeat Unmanned Aerial Vehicles (UAV), commonly called "drones";
- Launched the [first contest for a Pop-up City](#)^{lxiii}, as part of the Innovation for Defence Excellence and Security (IDEaS) program;
- Funded work related to Artificial Intelligence (AI) by:
 - Supporting partnerships with Canadian university-led research clusters (more commonly known as micro-nets), industry and government to stimulate collaboration and sharing ideas critical to innovation; and
 - Using AI as part of proposed solution models. These ranged from supporting recruitment to the detection and classification of objects of interest.
- Advanced defensive and offensive cyber operations in the areas of cyber attribution techniques (ability to identify the source of a malicious cyber activity) and ways of classifying cyber intent. Some initial research and development work was done in assessing human factors related to cyber operators and the CAF organizations that employ them.

Renew relationships with Indigenous Peoples

The Defence Team is committed to renewing and strengthening our relationship with Indigenous Peoples across Canada in support of whole-of-government commitments. The Defence Team is aware of, and complies with, our obligations (e.g. Aboriginal and treaty rights, legal duty to consult, contracting) reflected in statutes, negotiated agreements and treaties, court decisions, and policies. In addition, we are contributing to a number of government-wide priorities related to Indigenous Peoples, including the review of our policies and operational practices to ensure alignment with reconciliation.

DND developed a framework for reconciliation to guide the Defence Team in our interactions with Indigenous Peoples. The framework includes pillars (recruitment/retention, awareness/engagement, procurement, and land) and enablers (departmental principles, governance, training, and resources)

required to enhance DND/CAF relationships with Indigenous partners based on: creating opportunities for Indigenous communities through employment, youth leadership programming and procurement; being respectful of Indigenous obligations, culture and traditional knowledge; and building partnerships with Indigenous organizations to support the delivery of Defence programs.

Some highlights of the activities undertaken during FY 2019-20 include:

- Continued consultations with Indigenous groups in areas where we are considering the future transfer or sale of surplus defence property, including the Royal Roads and Mary Hill lands in Colwood and Metchosin, British Columbia, and property in Sainte-Foy, Quebec;
- Offered training opportunities to Indigenous communities and created several recruitment programs that aim to increase Indigenous representation in the military, including:
 - [Indigenous summer training programs](#)^{lxiv} – Bold Eagle, Raven, Black Bear, Carcajou, Grey Wolf – that combine military lifestyle with cultural awareness;
 - [Canadian Armed Forces Aboriginal Entry Program](#)^{lxv}, a three-week course for Indigenous Peoples to get hands-on experience with military training, careers and lifestyle; and
 - Two additional Indigenous training programs: Carcajou (Valcartier, Quebec) and Grey Wolf (Meaford, Ontario) were added in addition to the existing Indigenous training programs.
- Provided Indigenous businesses with opportunities to access government contracts. These mechanisms included regular contracts, set-asides under the Procurement Strategy for Aboriginal Businesses, Indigenous Benefit Plans/Aboriginal Participation Components, and contracts awarded under Comprehensive Land Claim Agreements; and
- Launched a national recruitment campaign aimed at drawing qualified Indigenous applicants.

For more information on the Department of National Defence and the Canadian Armed Forces' priorities and results achieved, see the [“Results: what we achieved”](#) section of this report.

Results: what we achieved

Core Responsibilities

Operations

Description

Detect, deter and defend against threats to or attacks on Canada. Assist civil authorities and law enforcement, including counter-terrorism, in support of national security, domestic disasters or major emergencies, and conduct search and rescue operations.

Detect, deter and defend against threats to or attacks on North America in partnership with the United States, including through NORAD.

Lead and/or contribute forces to NATO and coalition efforts to deter and defeat adversaries, including terrorists, to support global stability. Lead and/or contribute to international peace operations and stabilization missions with the United Nations, NATO and other multilateral partners. Engage in capacity building to support the security of other nations and their ability to contribute to security and the security of Canadians abroad. Assist civil authorities and non-governmental partners in responding to international and domestic disasters or major emergencies.

Results

The Canadian Armed Forces (CAF) continued to deliver on Canada's defence objectives to ensure Canada remains Strong at home, Secure in North America, and Engaged in the world.

In FY 2019-20, the Department of National Defence (DND)/CAF conducted operations at home, across North America, and around the world. DND/CAF supported government partners in response to domestic crises (e.g. floods, fires and winter storms), maintained the defence of North America in partnership with the United States through the North American Aerospace Defense Command (NORAD), and continued to make valuable contributions to international peace and security alongside allies in deployed operations around the world. We ensured national strategic goals were met for missions from planning to conclusion. The CAF continued to strengthen its collaboration with other government departments and agencies working on the front lines of Canadian national security and reinforced efforts to advance the evolution of joint intelligence surveillance and reconnaissance. The [Office of the Judge Advocate General](#)^{lxvi} supported the CAF in helping commanders to ensure that operational activities were conducted with the necessary authority.

DND/CAF has worked diligently to fine tune and integrate Joint Targeting Enterprise initiatives, as well as innovate to better provide targeting support to ongoing operations. These efforts focused on developing and articulating a targeting strategy and guidance to better enable target development within the Joint Targeting Intelligence Centre. Further, concerted efforts have been made to refine battle rhythm events and the Canadian Joint Warfare Centre conducted the Joint Non-Munitions effects experiment series to assist with these efforts. Progress has been made with regards to the integration of cyber enabled effects into operations; however, more work is required to generate targeted effects within the Information Domain.

The CAF continued to foster interoperability and strengthen intelligence sharing relationships. DND/CAF developed expertise and processes in order to support current and future collection capabilities. Significant improvements were made in Joint Intelligence, Surveillance and Reconnaissance. Oversight processes have been improved to solidify intelligence sharing relationships. Intelligence capability development has ensured that new Joint Operating Areas, such as Cyber, Space and Information operations, get the intelligence support they require.

The CAF and Communications Security Establishment (CSE) collaborated on the development of active cyber operations capabilities on behalf of the Government of Canada. The CAF supported several deployed CAF missions within cyberspace. Through this the CAF confirmed the success of the CAF's non-kinetic targeting processes, the respective military authorities involved, the rules of engagement considerations, and the detailed coordination that are necessary for these types of operations.

The CAF enhanced its ability to operate in the Arctic. The CAF conducted training and presence operations to improve mobility and enhance surveillance capabilities in Canada's North. This increased familiarity and situational awareness and has enabled the success of CAF operations in harsh operating environments.

[Incremental Costs for Major Canadian Armed Forces Operations^{lxvii}](#) and information on [current CAF operations and exercises^{lxviii}](#) are available on the Department of National Defence and the Canadian Armed Forces' website.

Experimentation

Defence related experimentation activities are outlined in this report under [Core Responsibility 4 – Future Force Design](#).

Key Corporate Risk(s)

There are no key corporate risks associated with the Operations core responsibility at this time.

Departmental Result 1.1 – Canadians are protected against threats to and attacks on Canada

Through [Operation LIMPID^{lxix}](#), the CAF conducts year-round surveillance and presence operations of Canada's territories and approaches in order to achieve all domain situational awareness of the maritime, air, terrestrial, space, and cyber domains. This operation allows the CAF to better predict, monitor and respond to crisis in addition to contributing to the assertion of sovereignty on behalf of the Government of Canada.

- Approximately 470 CAF personnel supported 39 missions, which included both surveillance and physical presence; and
- Naval units contributed by building or validating Maritime Domain Awareness in their vicinity.

The Canadian Special Operations Forces Command (CANSOFCOM) remained positioned to identify, confront and defeat threats to Canadians and Canadian interests at home and abroad through a cooperative joint interagency and multinational approach. In FY 2019-20, CANSOFCOM:

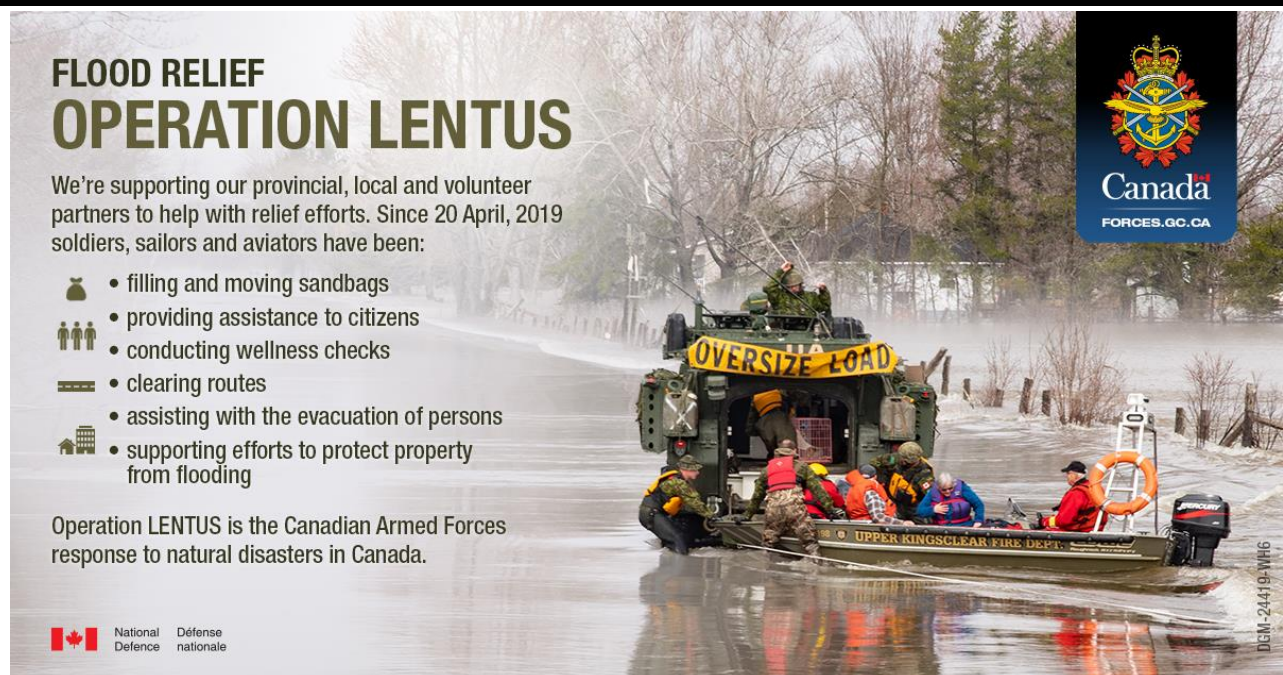
- Maintained overwatch of potential threats;
- Conducted the pre-positioning of forces to sustain high readiness in order to mitigate threats in North America and around the world; and
- Conducted joint operations and collaborated with partners to identify potential threats.

As a key partner in Canada's National Security community, the CAF strengthened its collaboration to improve the nation's ability to detect, deter and degrade threats to Canadians and Canadian interests. The CAF continued to work to improve whole-of-government cooperation by ensuring that information and actionable intelligence against threats to Canada are shared and disseminated promptly with partner departments and agencies.

The CAF provided military support on national security and law enforcement matters, such as rapid disaster response, medical evacuations and other humanitarian incidents. In November 2019, the CAF provided support to the Province of Ontario in response to a social crisis in North Spirit Lake by deploying seven Canadian Rangers and support personnel for a period of 16 days resulting in positive effects in the community.

Under **Operation LENTUS**^{lx}, the CAF responded to a range of domestic emergencies created by natural disasters, such as floods and forest fires, as requested by provincial or territorial governments. The CAF responded through five separate Operation LENTUS, which include the following highlights:

- **LENTUS 19-01:** From April to June 2019, this operation deployed 2 534 CAF members, and four CH-146 Griffon helicopters to New Brunswick, Quebec, and Ontario in response to massive flooding.
- **LENTUS 19-02:** From May to July 2019, this operation deployed 51 CAF members, five CC-130J Hercules aircraft and two CH-147 Chinook helicopters in response to wildfires in Pikangikum, Ontario. This coordinated effort saw the evacuation and return of this first nations community in the face of wildfire danger.
- **LENTUS 19-03:** From May to June 2019, this operation deployed 153 CAF members and two CH-146 Griffon helicopters in response to wildfires in Alberta.
- **LENTUS 19-04:** In September 2019, this operation deployed 430 CAF members and three CH-146 Griffon helicopters in response to a hurricane that occurred in Nova Scotia; deploying within hours of the hurricane ending.
- **LENTUS 19-05:** In November 2019, this operation deployed 11 CAF members in response to flooding in Bearskin Lake, Ontario.



Note: Infographic used during Operation LENTUS spring flooding operations.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
1.1 Canadians are protected against threats to and attacks on Canada	% of requests for assistance that are fulfilled	100%	31 March 2020	100%	100%	Not Available New indicator as of 2018-19
	% of force elements that are employed within established timelines	100%	31 March 2020	100%	100%	Not Available New indicator as of 2018-19
	% of operations that meet stated objectives	100%	31 March 2020	98%*	92%	100%
	Extent to which the Canadian Armed Forces is effective in domestic operations	The Canadian Armed Forces is effective in the conduct of domestic operations	31 March 2020	This is a qualitative indicator**	Not Available New indicator as of 2019-20	Not Available New indicator as of 2019-20

Notes:

* Domestic Operations: 98%. Capability enhancement initiatives, such as the All Domain Situational Awareness Science and Technology Program, seeks to resolve challenges in the Arctic due to existing communication and Joint Intelligence, Surveillance and Reconnaissance (ISR) deficiencies impacting interoperability with partners and other governmental departments.

** This is a qualitative indicator and results are articulated as successes and challenges throughout Departmental Result 1.1.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{lxxi}.

Departmental Result 1.2 – People in distress receive effective search and rescue response

- In FY 2019-20, there were 8 611 Search and Rescue (SAR) incidents (cases), with 1 701 cases having a final classification of 1 (Distress) or 2 (Imminent Distress). All Joint Rescue Coordination Centre SAR cases were handled effectively and prosecuted through to conclusion or handed over to an appropriate agency.
- The 8 611 cases generated 568 SAR taskings for the Royal Canadian Air Force (RCAF) air assets. In the other 8 043 cases, Joint Rescue Coordination Centres utilized assets of opportunity, including civilian aircraft and vessels that were available to resolve cases quickly and efficiently when safe and appropriate to do so.
- Of the 568 times tasked, the CAF met their response posture for 483 cases; therefore, 85% of the time. There are many circumstances which determine how a tasked SAR unit responds and therefore whether the response posture can be met. Inclement weather and time to load additional fuel for long, extended missions are the main causes for delays. SAR mission coordinators used every tool at their disposal to ensure all responses to SAR incidents in Canada are effectively conducted and/or coordinated to conclusion, or to handover to an appropriate agency.
- The [418 Squadron was re-established](#)^{lxxii} as a SAR operational training unit.

For more on search and rescue, please visit the Department of National Defence and the Canadian Armed Forces' [Search and Rescue](#)^{lxxiii} webpage.

Search and Rescue (SAR)



On 6 May 2019, near Thunder Bay, Ontario, a 439 Combat Support Squadron CH-146 Griffon helicopter is prepared by aircraft maintainers for take-off during Chinthex 2019. Getting SAR technicians out the door on a mission is a team effort that involves a wide variety of trades and personnel on the ground and in the air.

Photo: Aviator Tanner Musseau-Seaward

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
1.2 People in distress receive effective search and rescue response	% of Canadian Armed Forces aeronautical search and rescue operations that meet established standards	100%	31 March 2020	85%*	95.2%	Not Available New indicator as of 2018-19
	% of coordinated maritime, aeronautical and joint response to search and rescue incidents deemed effective	100%	31 March 2020	100%	100%	100%
	% of requests for Canadian Armed Forces aeronautical search and rescue assistance that are fulfilled	100%	31 March 2020	100%	100%	Not Available New indicator as of 2018-19

Notes:

* Of the 568 Royal Canadian Air Force (RCAF) deployments, the CAF met their response posture for 483 cases, or 85% of the time. There are many circumstances which determine how a tasked SAR unit responds. Cited causes for delayed missions included inclement weather and time to load additional fuel for long, extended missions. SAR mission coordinators used every tool at their disposal to ensure all responses to SAR incidents in Canada were effectively conducted and/or coordinated to conclusion or to handover to an appropriate agency.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{boxdv}.

Departmental Result 1.3 – Canada’s Arctic sovereignty is preserved and safeguarded

The CAF maintained a year-round presence in Canada’s North. This presence took the form of Joint Task Force (North), the CAF’s Northern headquarters, and several exercises and [sovereignty operations](#)^{lxxv} held in the Arctic. These activities share the same purpose: to assert Canada’s sovereignty in the region, to strengthen the CAF capabilities to conduct Arctic operations, and to improve the CAF’s ability to work with government partners in response to Northern safety and security issues. It is important to note that climate change will impact the nation’s ability to detect, deter, and degrade threats to Canadians and Canadian interests in the future, likely increasing the need for increased resources specific to the Arctic.

- [Operation NANOOK](#)^{lxxvi} was conducted in communities and locations across Canada’s Arctic including Nunavut, Yukon, Northwest Territories, and the Northwest Passage. Through Operation NANOOK, the CAF completed capability building activities across the Arctic region. The 2019 iteration of Operation NANOOK included the CAF, other government departments and agencies, domestic, and international partners. Under Operation NANOOK:
 - CAF personnel and international partners worked together to enhance and test their specialized Arctic skill-sets, reaffirming their reach and footprint, and their ability to operate in the High Arctic;
 - CAF members conducted activities from ground and underwater activities to complex logistical support, to improve its readiness and demonstrate its ability to sustain forces and operate in the region; and
 - The [CAF Arctic Training Centre in Resolute Bay, Nunavut](#)^{lxxvii} was leveraged this past winter as a staging area/exercise base camp for Operation NANOOK-NUNALIVUT to complete high Arctic training.
- The Canadian Army updated the Arctic strategy in “[Northern Approaches – the Army Arctic Concept 2021](#)^{lxxviii}”.
- In support of the Government’s Arctic and Northern Policy Framework, DND/CAF led the development, in partnership with our security partners (Transport Canada, Public Safety Portfolio, and the Canadian Coast Guard), of a Safety, Security and Defence chapter to supplement the framework. Drawing on the expertise of the military, as well as the security and intelligence community, this public document, released in September 2019, provides a comprehensive overview of the changing security environment in the Arctic.

Operation NANOOK-NUNALIVUT



A Canadian Armed Forces Medical Technician ensures the safety of members from 12^e Régiment Blindé du Canada D Squadron as they prepare for a reconnaissance patrol in Resolute Bay, Nunavut during Operation NANOOK-NUNALIVUT on 11 March 2020.

Photo: © 2020 DND-MDN Canada

All Domain Situational Awareness – ADSA



[#ArcticScienceMonth](#) - Through our ADSA Science and Technology Program, the Over-the-Horizon Radar project studies ways to increase the performance of Over-The-Horizon-Radar systems that are impacted by the Aurora Borealis in Canada's Arctic.

- The All Domain Situational Awareness Program to deliver on advance means of ensuring Canadian awareness on the arctic and maritime approaches to Canada.
- In August 2019, HMCS *Ville de Quebec* visited the new Nanisivik Naval Facility to test the span wire fueling system at the facility by conducting a "dry fit" hookup. Highlights for FY 2019-20 include:
 - The facility made significant progress towards reaching initial operational capability. The Initial Operational Capability and Final Operational Capability dates for the facility are expected to occur during the navigable season of 2022. Due to significant concerns and the uncertainty of how long the COVID-19 pandemic will last, the impact of the situation on the project cannot be determined; and
 - The facility has the fuel capacity of two 3.75-million-litre fuel tanks that will service the new *Harry DeWolf* Class Arctic and Offshore Patrol vessels as well as *Halifax*, *Kingston*, and *Victoria* Class including the future Canadian Surface Combatants.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
1.3 Canada's Arctic sovereignty is preserved and safeguarded	% of Arctic operations and exercises that meet stated objectives	100%	31 March 2020	100%	100%	100%

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^[xxix].

Departmental Result 1.4 – North America is defended against threats and attacks

- Collaborated with our allies, regional partners and other Canadian government departments to detect, confront and defeat trans-regional threats. Security and defence objectives were realised through:
 - Coordinated contributions to multinational coalitions;
 - Capacity building through bilateral and multinational forums, and multinational training activities;
 - Key leader engagements; and
 - Strong relationships fostered in the Global Special Operations Force Network.
- Through the NORAD Agreement, conducted binational maritime and aerospace warning and aerospace control capabilities to protect and respond to threats against North America. Throughout FY 2019-20, key activities included:

Aerospace warning:

- Through a layered and integrated system of surveillance platforms and Command and Control (C2) systems, NORAD gathered, processed, assessed and disseminated intelligence and information related to man-made objects in the air and space domains;
- The Canadian space satellite, SAPPHIRE, tracked debris and other threats to critical space assets to contribute to the United States Space Surveillance Network facilitating NORAD's execution of warning in the space domain; and
- The NORAD aerospace warning mission was supported by Canadian Joint Operations Command (CJOC), United States Northern Command (USNORTHCOM), Transport Canada and additional key stakeholders.

Maritime warning:

- NORAD, through a variety of Canadian and American information sharing networks, fused operational information and intelligence to provide situational awareness related to the maritime approaches to North America and internal waterways of Canada and the United States;
- NORAD leveraged existing Canadian and American systems, procedures, organizations and personnel to accomplish the maritime warning mission; and
- Close collaboration and liaison with USNORTHCOM, CJOC and other defence and security partners ensured that NORAD provided sufficient warning, in the maritime and aerospace domains, to the governments of both Canada and the United States to act in a timely and coordinated manner to ensure the safety and security of our way of life.



North American Aerospace Defense Command F-22s (seen in the distance), CF-18s (pictured in the forefront) supported by KC-135 Stratotanker (not pictured) and E-3 Sentry Airborne Warning and Control System aircraft (not pictured), intercepted two Russian Tu-142 maritime reconnaissance aircraft (one of two pictured in the middle of the photo) entering the Alaskan Air Defense Identification Zone on 9 March 2020.

- Exercise (Ex) VIGILANT SHIELD is an annual NORAD exercise focused on defending North America from attack. The exercise incorporates CJOC and USNORTHCOM, government agencies, and allies to demonstrate readiness and the Commands' ability to defend Canada and the United States by responding to a wide variety of security challenges. Ex VIGILANT SHIELD 20 allowed the CAF to conduct planning and operations within a contested environment against an adversary's cyber campaign, specifically enabling the Canadian NORAD Region to operate in a contested cyberspace environment. Key cyber highlights for Ex VIGILANT SHIELD 20 during FY 2019-20 included:
 - Exercised defensive cyber operations through the Bi-National Memorandum of Understanding and Concepts of Operations, and advanced joint and combined military planning efforts in the preparation and conduct of North American defence operations; and
 - Enabled the CAF to operate in a contested cyber environment and validate processes, authorities, and responsibilities with allied partners with regards to cyber incident management.
- To address the dynamic nature of the security environment, a review of the NORAD Contingency Plan (CONPLAN) is underway.
- In support of the Evolution of North American Defence (EvoNAD) Study, NORAD, USNORTHCOM and CJOC continued to examine current plans, initiatives and emerging threats to identify capability gaps, identify solutions to address the vulnerabilities posed by the gaps and improve their overall cooperation.
- As part of [Operation CARIBBE^{lxxx}](#), the CAF provided resources to include personnel, ships, and aircraft to Operation MARTILLO, a United States-led Joint Interagency Task Force – South effort by the nations of the Western Hemisphere and Europe to prevent illicit trafficking by transnational organized crime in the Caribbean Basin, the Eastern Pacific Ocean, and the coastal waters of Central America. Highlights for FY 2019-20 include:
 - Although it is challenging to measure the impact of this mission on substance trafficking at home, deployed vessels spent 275 days at sea and aircraft flew a total of 80 hours. Deployed assets disrupted a total of 3 817 kilograms (approximately 8 400 pounds) of cocaine and 25 kilograms (approximately 55 pounds) of illicit drugs, valued at approximately \$95.5 million United States Dollars;
 - HMCS *Whitehorse* intercepted 467 kilograms (approximately 1 030 pounds) of cocaine;
 - HMCS *Yellowknife* intercepted 25 kilograms (approximately 55 pounds) of illicit drugs;

- HMCS *Yellowknife* disrupted 1 040 kilograms (approximately 2 300 pounds) of cocaine;
 - HMCS *Goose Bay* conducted surveillance in the Caribbean;
 - 407 Squadron CP-140M assisted in the interception of 411 kilograms (approximately 900 pounds) of cocaine with Guatemalan Naval Forces and an additional 795 kilograms (approximately 1 750 pounds) of cocaine with USCGC BERTHOLF;
 - HMCS *NANAIMO* intercepted 1 104 kilograms (approximately 2 430 pounds) of cocaine; and
 - HMCS *Whitehorse* was assigned to participate in a multi-national exercise under the North American Security Initiative while employed during Operation CARIBBE, to develop a regional partnership between Armada de Mexico, the Royal Canadian Navy (RCN) and the United States Coast Guard.
- Two deploying Kingston Class Patrol Vessels from the Canada's Pacific fleet were ordered home early amid COVID-19, along with 90 service members aboard.
 - In FY 2019-20, DND/CAF hosted two international meetings on the military use of space: the Canada-United States Space Cooperation Forum and the Combined Space Operations Principals Board. Our leadership in both initiatives underlines the importance we give to deter any space-based threats to North America and in working with allies (not only the United States, but Five Eyes (Australia, Canada, New Zealand, the United Kingdom and the United States), Germany and France, which are also Combined Space Operations members) to learn to operate seamlessly together in space in support of the full spectrum of modern military operations.
 - As part of Operation ACKEE, the department continued to collaborate with Global Affairs Canada, to mentor, enable and create opportunities for the Jamaica Defence Force to grow as a Special Operations Forces leader to more effectively combat trans-regional threats in the Caribbean Basin. Other regional partners included Belize, the Bahamas, Barbados, Trinidad and Tobago and Guyana.

Operation CARIBBE



HMCS *Whitehorse* crewmembers transport seized drugs to a United States Coast Guard cutter during Operation CARIBBE on 13 April 2019.

Photo: Canadian Armed Forces, Imagery Technician

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
1.4 North America is defended against threats and attacks	% of continental operations that meet stated objectives	100%	31 March 2020	100%	100%	100%
	% of Canada's commitments and obligations to the North American Aerospace Defence Command agreement that are met	100%	31 March 2020	100%	100%	Not Available New indicator as of 2018-19
	Extent to which the Canadian Armed Forces is effective in continental operations	The Canadian Armed Forces is effective in the conduct of continental operations	31 March 2020	This is a qualitative indicator*	Not Available New indicator as of 2019-20	Not Available New indicator as of 2019-20

Notes:

* This is a qualitative indicator and results are articulated as successes and challenges throughout Departmental Result 1.4.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{lxxxix}.

Departmental Result 1.5 – Canadian Armed Forces contribute to a more stable and peaceful world

During FY 2019-20, the CAF contributed to the following in support of NATO assurance and deterrence measures. These measures aim to reinforce NATO's collective defence. It also shows the strength of allied solidarity. Highlights from FY 2019-20 include:

- The department deployed maritime, land and periodic air forces under [Operation REASSURANCE](#)^{lxxxii} in support of NATO assurance and deterrence measures, with the aim to reinforce NATO's collective defence;
- The CAF continued to deploy members on Operation REASSURANCE in Central and Eastern Europe. They are there as part of NATO assurance and deterrence measures. These measures aim to reinforce NATO's collective defence;
- The DND/CAF provided military capabilities for training, exercises, demonstrations, and assigned NATO tasks. The CAF support to this NATO mission increased in scope, personnel and infrastructure. Canada was a significant contributor in NATO Land, Air, and Sea operations and exercises;
- In FY 2019-20, the CAF broke ground for a [new NATO Multinational headquarters building in Latvia](#)^{lxxxiii}. Construction began in August 2019 and is estimated to be completed in November 2020;
- Land Task-Force: Canada continued its contribution to NATO's [enhanced Forward Presence](#)^{lxxxiv};
- Air Task Force Romania: The CAF provided a detachment of five CF118's to support NATO Enhanced Air Policing. This deployment ran from September through December 2019; and
- Maritime Task Force:
 - HMCS *Fredericton* set sail in January 2020 for a six month deployment, however all non-operational port visits and ceremonies were cancelled due to COVID-19; and

- From 15 June to 16 December 2019, Canada led the Standing NATO Maritime Group 2 (SNMG2) from HMCS *Halifax*. This marked the first time in NATO's history, a woman commanded a standing NATO fleet.



- At the NATO Leaders Summit in July 2018, the Prime Minister announced that Canada would rejoin NATO's Airborne Warning and Control System program, and committed further funding. The first cadre of five Canadians was posted in 2019. The expansion of this commitment will grow up to 25 members by 2023.
- Operation KOBOLD**^{lxxxv} is the CAF mission in Kosovo and Canada's role in the Kosovo Force; a NATO-led peace-support operation. Through this operation, the CAF supports Kosovo Force through the provision of five staff officers who help to provide logistic and headquarters support.
- Operation ARTEMIS**^{lxxxvi} is the CAF's contribution to maritime security and counter-terrorism operations in Middle Eastern and East African waters. The CAF works with its allies and partners to help stop crime in this region which includes Red Sea, the Gulf of Aden, the Gulf of Oman and the Indian Ocean. On 11 April 2019, Canada handed over command of Combined Task Force 150 (CTF-150) to Pakistan, completing Canada's fourth command. Additional highlights from FY 2019-20 include:
 - HMCS *Regina* seized and destroyed 9 000 kilograms (approximately 20 000 pounds) of illegal narcotics, worth just over \$4.7 million United States Dollars regional wholesale value; and
 - CAF personnel deployed to Bahrain in November 2019, for five months, to provide land-based support to CTF-150.

- **Operation IMPACT**^{lxxxvii} is the CAF's effort to provide training, advice, and assistance to the Iraqi security forces, and support the Global Coalition against Daesh and NATO with highly skilled personnel. DND/CAF remained a committed partner to the multinational coalition to degrade and ultimately defeat Daesh, through a whole-of-government approach, training efforts and responding to coalition needs. Throughout FY 2019-20, the CAF provided capacity-building support to Iraq, Jordan and Lebanon. Key events included:
 - Participated in Exercise EAGER LION 19 in Jordan from August to September 2019, which is the largest military exercise in the Middle East;
 - In June 2019, the Minister of National Defence **extended command of NATO Mission Iraq until November 2020**^{lxxxviii}, to complement our existing efforts in the Global Coalition against Daesh and to strengthen Iraqi security forces and Iraqi military education institutions so Iraqi forces can prevent the return of Daesh;
 - In April 2019, a ground-breaking ceremony took place to mark the start of the Jordan Border Road Rehabilitation project intent on rehabilitating the road that runs along Jordan's northern border with Syria. The CAF will construct 63 km of road as part of Canada's Middle East Strategy, which includes \$60 million to be spent building partner capacity in Iraq, Jordan and Lebanon. The rehabilitation project will allow the Jordanian Armed Forces to better respond to threats in this region;
 - Canadian Training and Assistance Teams continued to help Jordan and Lebanon build military capacity through projects and training that contribute to long-term security and stability;
 - Provided specialized training to an all-female infantry platoon of the Jordanian Armed Forces including: combat first aid; personnel and vehicle searches; and interactions with civilian and displaced persons;
 - Of note, a total of 278 women were deployed on Operation IMPACT during fiscal year 2019-2020. Operation IMPACT continued to benefit from having a diverse CAF presence and multiple perspectives contributing to success within a traditionally male dominated theatre of operations; and
 - Continued building partner capacity efforts in Jordan and Lebanon, despite CAF regular training activities being paused temporarily. Some mission critical activities, such as air sustainment operations, have however re-commenced.

Operation IMPACT



Major Jillian Pare and Jordanian Major Mohammad M. Brahmeh stand ahead of a Jordanian Super Puma taking off during Exercise OLIVE GROVE, a joint training exercise in the Jordan desert as part of Operation IMPACT, 9 September 2019.

Photo: Corporal Ryan Moulton, JTF-I PA Image Tech

- **Operation UNIFIER^{lxxxix}** is Canada's contribution to support the Security Forces of Ukraine (SFU) through capacity building, in coordination with the United States and other countries providing similar training. In FY 2019-20:
 - The Government of Canada extended the mission to 31 March 2022;
 - The Government of Canada enlarged the scope of activities to include small training exchanges, maritime capacity building and English language training;
 - The CAF provided training to 1 129 members of the National Guard of Ukraine and 5 833 members of the Armed Forces of Ukraine through 163 course serials; and
 - The CAF trained more than 18 096 SFU candidates (total as of 31 March 2020) via 420 course serials spanning all domains of activity since the start of the mission in September 2015.
- Under **Operation FOUNDATION^{xc}** Canada works with the United States, and other countries, to counter terrorism. The CAF has personnel located in the Middle East, North Africa and Southwest Asia as part of Operation FOUNDATION. There were approximately 16 CAF members deployed on Operation FOUNDATION, serving with a variety of United States headquarters. The CAF members served as staff in each of these host headquarters to provide a link between the headquarters and the CAF.
- The CAF made progress in its response to the 2018 Fall Reports of the Auditor General of Canada recommendation to increase the number of pilots and maintenance personnel, thus increasing the CAF's capability to control Canada's vast airspace and to contribute to international operations at the same time. In FY 2019-20, the department:
 - Initiated two operations:
 - **Operation EXPERIENCE^{xc}**, a directive to implement initiatives to stabilize and rapidly increase levels of pilot experience; and
 - **Operation TALENT^{xcii}**, an Air Force-led effort to improve the quality of life and quality of service of all personnel and their families.
 - **Launched additional initiatives^{xciii}** to ensure the continuing health of the RCAF and its ability to achieve mission success;
 - Began accepting applications in summer 2019 for the new **Air Operations Support Technician occupation^{xciv}** in the Reserve, and **Air Operations Officer occupation^{xcv}** in the Regular Force; and
 - The Canadian Army advanced the implementation of the Canadian Army Equipment Readiness Programme, to ensure that the serviceability of Canadian Army equipment is maintained at the highest level possible. This will improve the number and efficiency of maintenance personnel, both military and civilian, as well as leverage commercial maintenance resources.

RCAF - Pilot recruitment



- DND/CAF played an important role in United Nations peacekeeping in contribution to broader government objectives and whole-of-government efforts to prevent conflict, stabilize fragile situations and combat threats. Some of the capabilities we contributed to the United Nations peace operations are as follows:
 - DND/CAF announced the establishment of the [Dallaire Centre of Excellence for Peace and Security](#)^{xcvi}. The centre's initial focus area will be on how the CAF can implement the Vancouver Principles on Peacekeeping, and on the Prevention of the Recruitment and Use of Child Soldiers;
 - [Operation PRESENCE](#)^{xcvii} – Mali. The CAF operation that provided aeromedical evacuation assistance to the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) was successfully completed on 31 August 2019, as planned. The CAF continues to provide 5 staff officers assigned to the MINUSMA HQ in Bamako:
 - The Air Task Force operation began in August 2018 and was turned over to Romanian forces on 14 October 2019;
 - Five CH-146 Griffon helicopters flew as armed escorts for the Chinooks and carried out other critical tasks as required; and
 - Three CH-147 Chinook helicopters conducted aero medical evacuations, utility and air mobile operations.
 - [Operation PRESENCE](#)^{xcviii} - Uganda. In August 2019, the deployment of a Tactical Airlift Detachment to Uganda in support of United Nations peace operations was announced. Since then, the CAF has provided the United Nations with episodic tactical airlift support out of Entebbe, Uganda. This commitment has been extended until July 2021. Highlights include:
 - As of August 2019, the CAF started deploying a Tactical Airlift Detachment on a monthly basis to Entebbe, Uganda, to assist the United Nations Regional support Centre. The Canadian Tactical Airlift Detachment is comprised of approximately 20 personnel and a CC-130 Hercules aircraft with the ability to transport personnel, equipment and supplies; and
 - Support was provided to both the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO) and the United Nations Mission in the Republic of South Sudan (UNMISS).
 - [Operation CROCODILE](#)^{xcix} is Canada's support to the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (DRC). This mission is known as Mission de l'Organisation des Nations Unies pour la stabilisation en République démocratique du Congo (MONUSCO). Nine CAF members deployed on Operation CROCODILE, serving in two places in the DRC: MONUSCO headquarters in Kinshasa, and the headquarters in Goma;
 - [Operation SOPRANO](#)^c is the CAF engagement in the United Nations Mission in the Republic of South Sudan (UNMISS). Ten CAF members deployed on Operation SOPRANO, assisting with military planning and logistics. They served as staff officers and military liaison officers at UNMISS Force Headquarters in Juba. Additionally, they served in other locations throughout the Republic of South Sudan; and
 - [Operation JADE](#)^{ci} is a CAF mission in the Middle East, and a key contribution to the United Nations Truce Supervision Organization. Four officers deployed on Operation JADE, serving as [United Nations Military Observers](#)^{cii}.

Operation PRESENCE-Mali

For more than a year, the Canadian Armed Forces provided aeromedical evacuation coverage and transport aviation support to the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA). These valuable capabilities enabled UN forces to more effectively conduct long-range security operations in remote and vulnerable areas of the country.



Air Task Force

- Two rotations of **250** peacekeepers
- **3** CH-147F Chinook helicopters
- **5** CH-146 Griffon helicopters
- Conducted **11** Forward Aeromedical Evacuations
- Treated more than **40** casualties
- Flew **4 000** hours
- Transported **2 800** passengers
- Delivered **370 000** pounds of cargo

Tactical Aviation Detachment and Interim Operational Support Hub

- **1** CC-130 Hercules aircraft
- Flew more than **1 550** hours
- Delivered **2 000 000** pounds of cargo
- Transported **3 700** passengers

MINUSMA Headquarters

Up to **10** positions

National Defence / Défense nationale

- The department continued to collaborate with Global Affairs Canada (GAC) to enable Canada's contributions to a more stable and peaceful world through initiatives. In collaboration with GAC, DND has:
 - Operation ACKEE: The department continued to collaborate with Global Affairs Canada, to mentor, enable and create opportunities for the Jamaica Defence Force to grow as a Special Operations Forces leader to more effectively combat trans-regional threats in the Caribbean Basin. Other regional partners included Belize, the Bahamas, Barbados, Trinidad and Tobago and Guyana; and
 - [Operation NABERIUS](#)^{ciii} - DND/CAF continued to collaborate with GAC to mentor and enable the Forces armées nigériennes and Security Forces capabilities to address terrorism within Niger and regionally, as part of pan-Sahel and pan-African efforts setting the conditions for the regional coalition Exercise FLINTLOCK.
- The department continued to meet our commitment to develop and implement innovative training for peace operations by helping to enhance the overall effectiveness of United Nations operations, including through support for the [Elsie Initiative](#)^{civ} for Women in Peace Operations:
 - The Elsie Initiative for Women in Peace Operations is included in the Innovative Training line of effort. It is a whole-of-government initiative aimed at developing a combination of approaches to overcome barriers to women's meaningful participation in United Nations peace operations;
 - In FY 2019-20, 18% of the CAF's personnel deployed on United Nations missions were women, exceeding the minimum goal of 15%; and
 - The Elsie Barrier Assessment is in development; however, it has been delayed with new timeline to be announced.

- The following two initiatives have been delayed pending results of the Elsie Initiative Barrier Assessment:
 - A new Canadian Training and Advisory Team to work with partner nations before and during a deployment to enhance their contribution to a given mission; and
 - Activities to meet United Nations needs in various training centres and schools, as well as contributions to mobile training teams.
- The Chief of the Defence Staff (CDS) accepted Chairmanship of the [Women, Peace and Security](#)^{cv} Chiefs of Defence (WPS CHODs) Network starting July 2019. DND/CAF's focus has been: strengthening and formalizing the Network; expanding its membership; and increasing awareness and nations' commitment to advance the Women, Peace and Security agenda. In FY 2019-20:
 - DND/CAF launched an aide-memoire entitled "[Integrating Gender Perspectives in Operations](#)"^{cvi} during the United Nations WPS CHODs Network meeting in July 2019. This handbook is designed to assist all members of the CAF to integrate gender perspectives and the principles of GBA+ into operations. It has been distributed to the CAF and to the participants of the Gender Integration Workshop, delivered through our [Military Training Cooperation Program](#)^{cvi}. It has also been made available to all members of the WPS CHODs Network;
 - Under the leadership of the CDS, 13 additional nations have joined the WPS CHODs Network. The memberships currently sits at 52 participating nations and an additional 40 invitations have been sent to prospected nations;
 - Work started on the development of a Network Charter. It will record nation's pledges, and provide an opportunity for yearly updates on progress, during annual meetings;
 - DND/CAF has prepared a digital and portable training package to be made available to all United Nations countries in the fall of 2020; and
 - The Network members are preparing vignette contributions depicting examples of successfully implemented gender perspectives. These contributions will assist in the development of an "Illustrative Book on Gender Perspective Outcomes", to commemorate the 20th anniversary of the United Nations Security Council Resolutions 1325 on Women, Peace and Security.



- The department continued to integrate guidance provided from: the United Nations Security Council Resolutions; the Canadian National Action Plan on United Nations Security Council Resolutions 1325; NATO policy and guidance; and Government of Canada direction on GBA+, into CAF's planning and operations, and into the wider CAF institution. In FY 2019-20, the department:
 - Ensured operation orders for deploying forces contained an Annex on Human Security and Gender Perspectives, as part of the Operational Planning Process;

- Issued a mission and rotation specific directive to each deploying Task Force Commander within which contained clear guidance on Human Security and Gender Perspectives;
 - Maintained Human Security and Gender Perspectives as important planning factors, drawn from an analysis of the local population and operating environment;
 - Considered and incorporated human security considerations and gender perspectives in operations to improve our understanding of the local population within the area of operation, which by extension optimizes planning, decision-making and execution; and
 - Ensured that deployed Commanders and Task Force personnel completed the required gender training and subsequently factored gender perspective considerations in daily operations and reporting.
- **Operation PROJECTION^{cvi}** demonstrates Canada's ongoing commitment to global peace. CAF members continued to operate in maritime environments globally, enhancing relationships with Canada's allies and partners. The deployment of sailors, ships, submarines and maritime patrol aircraft supports the defence policy goals of increasing Canada's understanding and active involvement in the world, as well as building partner capacity in support of peace and stability. In FY 2019-20:
 - The CAF logged 180 flight hours, deployed two maritime patrol aircraft, six ships, and approximately 800 personnel; and
 - In January 2020, HMCS *Glace Bay* and HMCS *Shawinigan* deployed to work with African nations to build partner capacity, promote maritime security and foster relationships in the region. The ships, however, returned to Canada early due to the cancellation of two international exercises in response to the global effort to contain the spread of COVID-19.
 - **Operation NEON^{cix}** demonstrates the importance that Canada places on security in the Asia-Pacific region, international security and upholding the United Nations Security Council sanctions against North Korea. The CAF contributed three permanent members aboard United States Ship (USS) BLUE RIDGE, two rotations of Halifax-class frigates totaling eight weeks, and two rotations of CP-140 Aurora aircraft totaling eight weeks. CAF contributions in the region continues to be highly regarded and sought after by key partners in the region, including Japan and the United States.

Additionally, Canada has increased engagement and presence in the Asia-Pacific region. Participating with the US, Japan, Korea and other partners, Canada also continued to support peace and stability on the Korean Peninsula through its contribution to United Nations Command (Korea).



- The department continued to collaborate with GAC to enable Canada's contributions to a more stable and peaceful world through a number of initiatives. In collaboration with GAC, DND has:
 - Developed the [Implementation Guidance](#)^{cx} and accompanying Aide Memoire for the [Vancouver Principles](#)^{cx}, which offers a common basis to develop or amend policies, doctrine, training and education on child soldiers in the context of United Nations peace operations;
 - Provided tactical airlift support out of the [United Nations Regional Service Centre Entebbe](#)^{cxii} in support of the United Nations missions in the Democratic Republic of the Congo (DRC) and South Sudan in August 2019;
 - Promoted among allies and within the United Nations the cross-mission support concept embodied by Canada's tactical airlift support. This included a briefing to military advisors from Australia, Belgium, Denmark, Germany, Japan, the Netherlands, New Zealand, Norway, Sweden, Uganda, the United Kingdom, the United States and United Nations staff hosted by Canada's Permanent Mission to the United Nations in New York, in October 2019;
 - Leveraged the use of the tactical airlift to transport members of the United Nations' Special Committee on Peacekeeping Operations for their annual field trip to United Nations peacekeeping missions; and
 - Developed products to inform both the Minister of National Defence and Minister of Foreign Affairs of the best ways to respond to United Nations peacekeeping needs.
- The department increased situational awareness, enabling early strategic warning of emerging crises, in conjunction with our NATO partners and Five Eyes allies (Australia, Canada, New Zealand, the United Kingdom and the United States), via timely and credible intelligence processing, exploitation and dissemination. In FY 2019-20 we:
 - Produced and disseminated timely and relevant intelligence to Five Eyes countries on a number of key issues;
 - Participated in numerous Five Eyes defence intelligence forum meetings. These foras and associated initiatives enhanced cooperation on matters of all-source intelligence as well as in relation to particular intelligence disciplines. Among the initiatives advanced was the modernization of information technology systems to facilitate continued collaboration;
 - Enhanced Five Eyes transparency and cooperation with respect to workforce development in the defence intelligence field; and
 - Provided intelligence training opportunities to NATO nations.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018-19 Actual results	2017-18 Actual results
1.5 Canadian Armed Forces contribute to a more stable and peaceful world	% of international operations that meet stated objectives	100%	31 March 2020	98%*	93%	97%
	Extent to which the Canadian Armed Forces is effective in international operations	The Canadian Armed Forces is effective in the conduct of international operations	31 March 2020	This is a qualitative indicator**	Not Available New indicator as of 2019-20	Not Available New indicator as of 2019-20

Notes:

* 98% achievement of international operation objectives (2% delta) relates to the onset of the COVID-19 global pandemic and the capability to generate targeted effects within the information domain. Due to the high priority placed on the safety of Canadian soldiers working abroad, measures were taken to ensure their personal safety, including in some cases, repatriation (ex. Operation IMPACT, Operation UNIFIER). These safety measures had knock-on effects for ongoing and planned CAF activities, contributing to the less than 100% target completion for the FY. Secondly, the CAF continues to refine its ability to integrate cyber enabled effects in CAF-led operations.

** This is a qualitative indicator and results are articulated as successes and challenges throughout Departmental Result 1.5.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{cxiii}.

Budgetary financial resources (dollars)

2019–20 Main Estimates	2019–20 Planned spending	2019–20 Total authorities available for use	2019–20 Actual spending (authorities used)	2019–20 Difference (Actual spending minus Planned spending)
1,020,478,595	1,032,239,527	1,372,914,038	1,044,514,772	12,275,245

Human resources (full-time equivalents)

2019–20 Planned full-time equivalents	2019–20 Actual full-time equivalents	2019–20 Difference (Actual full-time equivalents minus Planned full-time equivalents)
4,923	2,647	(2,276)

Financial, human resources and performance information for the Department of National Defence and the Canadian Armed Forces' Program Inventory, including explanation of significant variances, is available in the [GC InfoBase](#)^{cxiv}.

Ready Forces

Description

Field combat ready forces able to succeed in an unpredictable and complex security environment in the conduct of concurrent operations associated with all mandated missions.

Results

Determining the Canadian Armed Forces (CAF) ability to support the missions assigned by the Government of Canada as outlined in *Strong, Secure, Engaged*: Canada's Defence Policy (SSE), the CAF requires the continuous monitoring of key capabilities (Personnel, Equipment, Training, Supplies). To achieve this goal, the department completed a planning and scope exercise for Force Posture and Readiness (FP&R) with three main objectives in mind: improve situational awareness, improve posturing, and enable analytics. As a result, the department gained a better understanding of the scope, approach, cost and schedule for delivering a new FP&R solution in replacement of the existing Strategic Management and Readiness Tool (SMaRT), while delivering new enhanced functionalities and redesigning the department's approach for assessing force readiness.

The FP&R Directive defines the requirements needed to support multi-mission concurrent capabilities and tasks as described in SSE. This directive ensures that force elements (individual or collective units or capabilities) are trained in accordance with established readiness levels. Readiness levels are achieved through individual training (training individual CAF members), collective training (training teams to work together) as well as validation activities (assessments), equipment servicing, and readiness management.

Readiness levels continued to be achieved in accordance with the managed readiness plan as well as through the preparation of equipment required for training and operations, and the execution of individual and collective training. Added together, this has allowed the CAF to have the flexibility to respond to various mission sets which include: defence diplomacy; collaboration with other Government of Canada departments and agencies in support of domestic defence and security; rapid provision of humanitarian assistance and disaster relief; peace support operations; and combat operations.

The Royal Canadian Air Force (RCAF) generated and sustained relevant, responsive and effective air and space power throughout FY 2019-20. With agile and scalable ready air and space forces, the RCAF supported Search and Rescue (SAR) missions, North American Aerospace Defense Command (NORAD) missions, and assisted civil authorities and other government departments on domestic operations and disaster relief efforts. RCAF force elements participated in over 15 readiness exercises, which included NATO partners and the Five Eyes allies. Additionally, RCAF provided forces support to over 20 missions, both domestically and abroad.

As Canada's naval force, the Royal Canadian Navy (RCN) remained a rapidly deployable, highly flexible and versatile instrument of national power that provided the Government of Canada with maritime defence options in support of national objectives. To meet these demands, the RCN conducted several exercises and operations with allied forces to enhance interoperability, strengthen relationships, and maintain global maritime security. Specific achievements include the interdiction of millions of dollars' worth of illicit drugs globally through [Operation CARIBBE^{cxv}](#) and [Operation ARTEMIS^{cxvi}](#), building the capacities of partner nations through [Operation PROJECTION^{cxvii}](#), and leading Standing NATO Maritime Group 2 (SNMG2) through [Operation REASSURANCE^{cxviii}](#).

During FY 2019-20, the Canadian Army (CA) force generated and deployed force elements on named operations while preserving force elements for contingency commitments to allies; overall, providing timely effects both internationally and domestically. The CA delivered requested land forces for domestic operations such as [Operation LENTUS^{cxix}](#), [Operation NANOOK^{cxx}](#) and [Operation LASER^{cxxi}](#); internationally for [Operation IMPACT^{cxvii}](#) (Middle East), [Operation PRESENCE^{cxviii}](#) (Africa), [Operation UNIFIER^{cxvii}](#) and [Operation REASSURANCE^{cxvii}](#) (Europe). To ensure the CA is able to generate the assigned targets, it has adjusted its Managed Readiness Plan to increase the share of its forces ready for deployment throughout FY 2020-21. With the unprecedented realities of the COVID-19 pandemic, and

the ongoing demands of Operation LASER 20-01, the CA continues to adjust. While the implications are still developing, the CA remains resilient in its delivery of operational outputs.

The Department of National Defence's (DND) Managed Readiness Programs have continued to ensure the CAF is trained and adequately equipped as a scalable, agile, responsive and interoperable force both domestically with civil authorities and other government departments, and internationally with allies and partners.

The Joint Managed Readiness Program provides guidance for the conduct of joint readiness training in the CAF. It also provides direction on what needs to be achieved to maintain and further increase the level of joint readiness of the CAF. Most joint training exercises favor the three operational functions of Command, Sense and Sustain with only slight variations. Overall, 94% of planned exercises were conducted during FY 2019-20.

Experimentation

Defence related experimentation activities are outlined in this report under [Core Responsibility 4 – Future Force Design](#).

Key Corporate Risk(s)

Two DND/CAF key corporate risks can be associated with the Ready Forces core responsibility. There is a risk that the CAF will not be able to meet its operational military personnel demand. There is also a risk that the CAF has insufficient force elements of appropriate readiness to respond to concurrent missions and assigned readiness levels. Many of the preventative and mitigating controls for these risks are articulated as activities of each Departmental Result below.

Departmental Result 2.1 – Canadian Armed Forces are ready to conduct concurrent operations

Exercise FORMIDABLE SHIELD



QinetiQ workers prepare to deploy the Vindicator drone before a live fire exercise onboard Her Majesty's Canadian Ship (HMCS) *ST. JOHN'S* during Exercise FORMIDABLE SHIELD on 4 May 2019.

Photo: Private Sarina McNeill

- The CAF generated and sustained high readiness naval, land, air, special operations forces and joint capabilities to meet FP&R levels directed by the Chief of the Defence Staff (CDS) and the concurrent mission requirements of SSE. Throughout FY 2019-20, we progressed a number of initiatives to improve readiness, including:
 - [Exercise JOINTEX^{cxvii}](#) is an annual, enduring series of CAF professional military education, joint capability development, and training activities that are conducted on a continuous three-year cycle. Highlights from FY 2019-20 include:

- As an integral part of the JOINTEX series, JOINTEX 19-02 focused on the Canadian Joint Warfare Centre managed Joint Non-Munitions Experiments 3A and 3B, designed to operationalize the updated full spectrum targeting enterprise which considers, for the most part, non-munitions targeting effects including: Electronic Warfare; Cyber and Information Operations;
- The [Joint Operations Symposium](#)^{cxvii} (JOS) was conducted in February 2020. The JOS is the main event of the first phase of JOINTEX, and is an important forum in which Canada's national defence and security team, and other security partners, share perspectives, strengthen relationships and stimulate discussion on operating in the modern global environment; and
- Integration of Command and Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) and strategic and operational targeting processes as well as theatre staging and support within a Five Eyes environment was practiced under JOINTEX.
- Exercise VIGILANT SHIELD is an annual Tri-Command (NORAD, United States Northern Command (USNORTHCOM), and Canadian Joint Operations Command (CJOC) exercise focusing on the defence of North America. The exercise concerns preparedness to work continentally in the Defence of North America and involves the coordination of planning and command and control amongst the involved headquarters. Through this exercise, the CAF advanced joint and combined military cooperation in the planning, preparation, and conduct of North American defence operations for the following missions:
 - Mission 1 – Detect, deter, and defend against threats or attacks on Canada; and
 - Mission 2 – Detect, deter, defence against threats to or attacks on North America in partnership with the United States, including NORAD.
- [Exercise VIGILANT SHIELD 20](#)^{cxviii} saw the most ambitious and robust Command headquarters' participation to date. Concerted effort was placed on the stand up of an internal Joint Operations Centre to manage, disseminate, and respond to this exercise's specific demands. While this Joint Operations Centre was specific to Exercise VIGILANT SHIELD requirements, it served as a template for any Battle Watch requirement, and numerous observations were garnered on improvements that could be made on how operations are managed from an Operational Command Headquarters perspective. In FY 2020-21, Exercise VIGILANT SHIELD 21 will build upon this progress and these lessons to continue to advance this CAF capability.
- [Exercise TRADEWINDS 19](#)^{cxix} is a multinational maritime interdiction, ground security, and interagency exercise led by the United States Southern Command. CAF members participated in Exercise TRADEWINDS 19 in June 2019. It included participants from 22 nations and key regional organizations. The exercise took place in St. Vincent and the Grenadines, and the Dominican Republic. The CAF participated on land and at sea. In total, the CAF sent approximately 80 soldiers and sailors, including a ship, dive team, mentors from the Royal Canadian Navy (RCN) and the Canadian Army (CA), and a joint CAF and Global Affairs Canada (GAC) disaster assessment team which trained in responding to humanitarian crises.
- Planning commenced for CAF participation in NATO Exercise STEADFAST DEFENDER 21, focusing on participation in Part 1 – Sea Lines of Communication/Reinforcement, and the establishment of the new NATO command, Joint Force Command Norfolk.
- Command and Control, and cooperation with Arctic nations, including the United States, in the conduct of Arctic missions or operations:

- **Operation NANOOK^{xxxx}** occurs every year across Canada's Northern most regions; and
 - Exercise ARCTIC ZEPHYR remained postponed until FY 2020-21.
- Enhanced the preparedness of the CAF by assessing technology trends, threats and opportunities. To address emerging technologies including virtual Air, Maritime, Space and Cyber Warfare environments DND/CAF stood up a dedicated line of effort on training for future operational environments.
- DND/CAF participated in several CAF cyber training activities in the interest of preparing to defend Canada, the continent and international interests from cyber threats:
 - Cyber Domain Indoctrination Course (CDIC) - Conducted 21 October to 1 November 2019: CDIC material included how to integrate cyber considerations into their core staff functions including but not limited to policy, legal, procurement, projects, human resources, and training. CDIC gave an understanding of cyber operations and broadened understanding of modern military cyber operations and the context in which they are conducted;
 - Exercise CYBER FLAG 19 - Executed from 10 to 28 June 2019 in Suffolk, Virginia: Is a USCYBERCOM-led joint tactical training exercise focused on the conduct of full spectrum cyber operations in support of coalition warfare against a realistic and motivated adversary in a virtual environment;
 - Exercise CYBER WARRIOR 19 - Conducted from 18 to 29 November 2019 in the United Kingdom: Is a UK-hosted bi-annual Five Eyes cyber training exercise focused on both Offensive and Defensive Cyber contributions to full-spectrum military operations. The CAF's focus was on the Joint Cyber Operational Planning Process, normalizing Cyber Operational Planning Process, normalizing Defensive Cyber Operations, and building partnerships, both internally and externally to the CAF; and
 - Exercise CYBER COALITION 19 - Executed from 2 to 6 December 2019 in Estonia: This exercise was a NATO-led exercise in the cyber domain conducted annually. The aim is to enhance cooperation and collaboration among NATO members by strengthening NATO and allies' ability to protect and defend allied cyberspace and conducting military operations in and through cyberspace. Coordination and collaboration includes exercising NATO and national procedures in the cyber domain including best practices on information sharing, enhancing cyber domain situational awareness, and providing advice and decision-making, in accordance with national roles and responsibilities.
- DND/CAF advanced the delivery of modern air and space power through multiple initiatives and the achievement of several milestones in FY 2019-20: The following is a list of these undertakings:
 - The Deputy Minister (DM) and the Chief of the Defence Staff (CDS) signed the Initiating Directive on Space Operations;
 - Received approval to proceed with a CAF Joint space concept of operations, including plans to stand-up a formation-level Canadian Space Division;
 - Created the Advanced Space Effect to further develop space capabilities;
 - Participated in the international Canadian Space Operations Initiative to advance Command and Control (C2) and overall Combined Space Operations;
 - Initiated Canada's participation in Operation Olympic Defender;
 - Stood-up the Combined Technical Operations Cell at Vandenberg Air Force Base as part of the Combined Space Operations Center;

- Planned and coordinated the employment of Polar Epsilon Near Real-Time Ship Detection with the Swedish military to support Exercise AURORA 20, and with the Finnish military to support Exercise ARCTIC LOCK. These venues allow for experimentation in information sharing with our Arctic Partners;
 - Coordinated and integrated with United States Space Command and USSTRATCOM to conduct an electromagnetic interference scenario with a Canadian owned satellite;
 - Led planning and execution for Exercise GLOBAL SENTINEL. Participants included 16 countries and their various space/ground based assets;
 - Participated in the first Coalition Space Flag, where tactics, techniques and procedures were shared for on-orbit defensive space operations between Five Eyes allies;
 - Collaborated with the Combined Space Operations Center, provided space support to Operations PRESENCE, RENAISSANCE, NEON and IMPACT; and
 - Received approval of the Minor Capital Project to develop a Canadian Space Common Operating Picture. This capability will feed into the Allied Space C2 initiative.
- We continued to facilitate the movement of people, materiel, equipment and supplies in far-reaching locations around the globe and to ensure effective Strategic Lines of Communication between Canada and theater. DND/CAF succeeded to support all the mission requirements through the continued expansion of Operational Support Hubs (OSHs), but also through diplomatic relationships and agreements with our allies and other government departments and agencies; and, by adapting to regional, Host Nation capacity, or other external resources. During FY 2019-20, noteworthy achievements include:
 - OSH Europe - Continued to improve support to Europe based CAF missions and reinforced linkages with the German Joint Support and Enabling Service to promote multinational logistics cooperation in the European region and other international operations;
 - OSH West Africa - Enabled theatre close out for Task Force Mali, which involved the repatriation of over 907 100 kilograms (approximately 2 million pounds) of freight. OSH operations were subsequently reduced to a steady state posture to enable enduring CAF missions in Africa;
 - OSH South West Asia - Remained in direct support of [Operation IMPACT](#)^{xxxxi} activities and more responsive regional support links were established with other missions in the region such as [Operation FOUNDATION](#)^{xxxii};
 - OSH Latin America Caribbean - Strengthened interoperability links with the United States, Jamaica and other international partners through joint exercises to improve agility and responsiveness to humanitarian aid and disaster relief requirements in the region;
 - OSH East Africa - There was and there remains no operational requirement to develop this OSH within the foreseeable future; and
 - For East Asia, negotiated logistics and diplomatic arrangements were used as and remain the foundation of support in this region, rather than an enduring OSH. This concept sees no basing of forces, prepositioned materiel or dedicated infrastructure. Rather, specific arrangements will be negotiated that will outline the OSH concept and the support required if activated.

- We advanced the integration of our space-based capabilities with the whole-of-government [RADARSAT Constellation Mission](#)^{cxxxiii} (RCM), which was [launched](#)^{cxxxiv} on 12 June 2019 and became operational in late 2019. It provides a worldwide situational awareness capability. The CAF has started to acquire imagery.
- Initial operational capability of the two DND/CAF Polar Epsilon ground stations has been delayed due to programmatic challenges and COVID-19. Therefore, RCM cannot be fully leveraged until the ground stations once again become operational.
- Delivery of the future HMCS *Harry DeWolf*, the first unit of the [Arctic and Offshore Patrol Ship](#)^{cxxxv} project was delayed to summer 2020. The RCN will integrate the future HMCS *Harry DeWolf* into the fleet once delivered. The Arctic and Offshore Patrol Vessels will be capable of navigating in sea ice up to one metre thick and will extend the RCN's ability to operate in the Arctic, enhancing the CAF's situational awareness and will contribute to maintaining Canadian sovereignty in the North. The ship will also be capable of operating with an embarked Cyclone helicopter on a variety of missions at home and around the globe. The ship will contribute to coastal surveillance, search and rescue, drug interdiction, humanitarian assistance and disaster relief operations and will be capable of integrating with a range of international partners. The acquisition of six ships will greatly increase the capacity of the RCN to deploy its vessels simultaneously, at home or abroad, enabling the RCN to use its fleet more effectively to meet objectives.
- The CA is still in the process of updating its Managed Readiness System to better enable readiness in support of SSE concurrent operational imperatives. During FY 2019-20, the Managed Readiness System was adjusted to increase the share of its forces ready for deployment throughout FY 2020-21. Additionally, the CA continues to operationalize the Army Reserve in order to meet assigned readiness levels.
- The RCAF has integrated the following new and replacement capabilities into the RCAF structure in FY 2019-20:
 - The first two fighter jets purchased from Australia are operational and have flown in RCAF colours;
 - The CH-148 Cyclone (replacing the CH-124 Sea King) embarked on operations, including but not limited to [Operation ARTEMIS](#)^{cxxxvi};
 - The CC-295 fixed-wing search and rescue aircraft project took an important step forward in January 2020, as the Aircraft Maintenance Trainer departed Seville, Spain, to travel to Canada; and
 - The new Search and Rescue Training Centre is under construction at 19 Wing Comox, British Columbia, and is expected to be completed mid-2020. This is the centre where the RCAF Search and Rescue aircrew and maintenance personnel will be trained. The new training centre will include: ten classrooms; sophisticated training devices such as a full-flight simulator; a cockpit procedure trainer; a sensor station simulator; and an aircraft maintenance trainer. Simulation training improves efficiency, environmental impact and operations by reducing the need to use operational aircraft for training purposes.

The CAF is ready



A CH-148 Cyclone helicopter pilot, sits at the controls of the aircraft prior to take-off from Standing NATO Maritime Group 2 (SNMG2) flagship, HMCS *HALIFAX* during Exercise DOGU AKDENIZ 19, in the Eastern Mediterranean, as part of Operation REASSURANCE on 14 November 2019.

Photo: MS Dan Bard, Canadian Forces Combat Camera

- The Canadian Special Operations Forces Command (CANSOFCOM) remained at a very high readiness level to disrupt or respond to emerging crisis situations or threats to Canadians and Canadian interests. CANSOFCOM maintained a highly-skilled, multi-purpose special operations force, prepared to operate at home and abroad in situations posing a threat to national interest. CANSOFCOM contributed to the CAF's ability to anticipate threats through:
 - Preparation and maintenance of high readiness forces;
 - Conducting individual and collective training with key allies and Five Eyes allies;
 - The generation of forces designed to conduct intelligence collection, surveillance and reconnaissance activities; and
 - Command and Control of operational activities around the globe.
-



Canadian Special Operations Forces Command members work with their Forces armées nigériennes partners during Exercise FLINTLOCK 20 – United States Africa Command's largest annual Special Operations Forces training event in Mauritania and Senegal from 17 - 28 February 2020.

For more information, refer to the following websites:

- Learn about various [military exercises](#)^{cxxxvii} that train and prepare the CAF for future operations at home and abroad.
 - [Royal Canadian Navy](#)^{cxxxviii}
 - [Canadian Army](#)^{cxxxix}
 - [Royal Canadian Air Force](#)^{cxl}
 - [Canadian Special Operations Forces Command](#)^{cxli}
 - [Canadian Joint Operations Command](#)^{cxlii}
 - [Canadian Forces Intelligence Command](#)^{cxliii}
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Exercise MAPLE RESOLVE



Members of the Canadian Army conduct a combined arms attack at 3rd Canadian Division Support Base detachment Wainwright's training area during Exercise MAPLE RESOLVE 19, 15 May 2019.

Photo: Corporal Djalma Vuong-De Ramos, 3rd Canadian Division Support Base Edmonton (Detachment Wainwright) Imaging Services.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018-19 Actual results	2017-18 Actual results
2.1 Canadian Armed Forces are ready to conduct concurrent operations	% of operations that are capable of being conducted concurrently	100%	31 March 2025	100%	100%	Not Available New indicator as of 2018-19
	% of force elements that are ready for operations in accordance with established targets	100%	31 March 2025	80.34%*	79%	Not Available New indicator as of 2018-19

Notes:

* The target is an aspirational target with a date to achieve target of 31 March 2025.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{cxliv}.

Departmental Result 2.2 – Military equipment is ready for training and operations

- The department has made progress towards the development and sustainment of capabilities needed to undertake the operations and exercises that take place in Canada and around the world and which depend on having the necessary trained personnel and military equipment – aircraft, ships, vehicles and weapons – in good working condition and at a certain level of readiness. This means that once equipment is made available to the CAF, it is maintained in serviceable, or reliable, condition for use by the CAF in exercises and operations. Equipment maintenance and repair involves civilian and military personnel and private sector firms. Spending in this area makes a significant contribution to the Canadian economy every year. Examples of equipment made available in FY 2019-20 include:
 - CP140 Aurora Incremental Modernization Project/Aurora Structural Life Extension Project. Highlights include:
 - Aurora Incremental Modernization Block III achieved Full Operational Capability on 26 June 2019; and
 - Aurora Incremental Modernization Block IV conducted an initial assessment flight on 21 February 2020, and relocated the aircraft to 14 Wing for on-ground testing and training development.
 - Interim Fighter Capability Project:
 - The critical modifications and associated flight testing on the first two supplementary aircraft, received in February 2019, were completed in June 2019, culminating with the declaration of Initial Operational Capability by the RCAF on 28 June 2019.
 - Maritime Helicopter Project:
 - The Project accepted six Block 2 Cyclone helicopters in FY 2019-20;
 - The contractor team completed systems integration testing of the final, Capability Release 2.1 configuration under the acquisition contract; and
 - Two helicopters have been modified to the Capability Release 2.1 configuration, one of which will become the flight test vehicle.

- The department continued to assess the use and availability of maritime, land and aerospace fleets. While equipment continued to be made available for use by the different military environments through the Defence Equipment Acquisition Programs and the Equipment Support Program, the serviceability of equipment for training and operations is ensured by the Ready Forces Programs where minor repairs are addressed. Specifically, the CA started to develop an improved Serviceability and Sustainment Dashboard to better monitor serviceability rates and predict parts and maintenance needs, which should be available sometime in FY 2020-21.
- The availability and serviceability of the various key equipment fleets of the CAF continued to be monitored during FY 2019-20. We further improved our measurement of the availability and serviceability of equipment and its contribution to ensure the readiness of our forces and the effective delivery of operations. Highlights from FY 2019-20 include:
 - The availability and serviceability rates of all aircraft fleets continued to be monitored and reported on a quarterly basis through a formalized process to ensure the readiness and the effective delivery of operations;
 - The RCN's *Kingston*-class achieved the planned level of availability. However, *Victoria*-class did not achieve the planned level of availability due to delays in the docking work periods for HMCS *Victoria* and HMCS *Windsor*. Also, *Halifax*-class did not achieve the planned level of availability due to delays during the docking work period for HMCS *Vancouver*. Availability of equipment was monitored by tracking the performance in the planning and executing of the Docking Work Periods which make the critical fleets available for the RCN;
 - Availability of RCN equipment was monitored by tracking the performance in the planning and executing of the docking work periods which make the critical fleets available for the RCN; and
 - The CA force generated the necessary equipment for named operations. Mandated training and institutional support were achieved through whole fleet management.
- Command-driven equipment management programs such as the Canadian Army Equipment Readiness Programme aimed at improving equipment serviceability are in effect and being monitored closely. Certain fleets are vulnerable to disruption due to their small size, therefore prudent allocation of human and financial resources remained crucial to meet the availability targets.

It is to be noted that physical restrictions put in place due to COVID-19 at the end of FY 2019-20 may pose a risk to serviceability rates, with this risk increasing the longer the restrictions remain in place.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
2.2 Military equipment is ready for training and operations	% of maritime key fleets that are serviceable to meet training and readiness requirements	90% or greater*	31 March 2020	98.20%	91.40%	95%
	% of land fleets that are serviceable to meet training and readiness requirements	70% or greater*	31 March 2020	65.40%**	72%	Not Available New indicator as of 2018-19
	% of aerospace fleets that are serviceable to meet training and readiness requirements	85% or greater*	31 March 2020	60.80%***	79.10%****	Not Available New indicator as of 2018-19

Notes:

* A portion of the fleet will normally be subject to repairs due to the use of fleets and thus not be serviceable. As such, a target of 100% would not reflect a realistic goal. A healthy fleet should, however, reflect a low proportion of the fleet that is unserviceable in order to ensure that the appropriate level of training and readiness can be provided. Note that the concept of "serviceable" differs significantly between military environments due to the inherent differences across types of equipment.

** During FY 2019-20, the CA force generated the necessary equipment for operations, mandated training and institutional support. The target of 70% was not achieved due to a less than optimal spare parts and technicians that have contributed to low serviceability of certain key fleets.

*** The deviation from the target has resulted from an operationally-focused interpretation of the definitions for "available" and "serviceable" as they apply to aircraft in the measurement formula. Under this context, the indicator better aligns internal Royal Canadian Air Force measurement strategies with external reporting of results. Given the cyclical nature of preventative aircraft maintenance, and the circumstances unique to each fleet, these definitions provide a more comprehensive measure of how limited air assets were managed for use in training and operations. The operational definitions of "available" and "serviceable" will be formally adopted in future reporting cycles, along with the establishment of an appropriate indicator target to correspond with the changed measurement formula.

**** The calculation of serviceability for the aerospace fleets has been modified for FY 2019-20 and the measurement result of 2018-19 is no longer comparable to that of FY 2019-20. Using the new methodology, the serviceability measurement for FY 2018-19 would have produced a result of 58.6%.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{cxlv}.

Budgetary financial resources (dollars)

2019-20 Main Estimates	2019-20 Planned spending	2019–20 Total authorities available for use	2019–20 Actual spending (authorities used)	2019–20 Difference (Actual spending minus Planned spending)
9,558,448,134	9,672,587,363	10,027,665,272	9,875,229,209	202,641,846

Human resources (full-time equivalents)

2019-20 Planned full-time equivalents	2019–20 Actual full-time equivalents	2019–20 Difference (Actual full-time equivalents minus Planned full-time equivalents)
46,016	45,797	(219)

Financial, human resources and performance information for the Department of National Defence and the Canadian Armed Forces' Program Inventory, including explanation of significant variances, is available in the [GC InfoBase](#)^{cxlvi}.

Defence Team

Description

Recruit, develop and support an agile and diverse Defence Team, within a healthy workplace free from harmful behaviour; support military families; and meet the needs of all retiring military personnel, including the ill and injured. Strengthen Canadian communities by investing in youth.

Results

People are at the core of everything the Defence Team has done to ensure Canada is strong, secure, and engaged in the world. All of our success has come as a result of having healthy, resilient, well-trained, and motivated personnel supported by talented and dedicated defence civilians working within the Department of National Defence (DND). This integrated civilian-military Defence Team has been and continues to be the heart of our institution.

We have taken significant strides in ensuring that the entire Defence Team has the care, services, and support it requires and have continued to work towards eliminating harassment and discrimination in the workplace. We have improved attraction efforts in order to recruit talented, motivated Canadians who reflect the broad range of cultural, linguistic, gender, age, and other unique attributes which will contribute directly to our efforts to develop a deeper understanding of our increasingly complex world. We have made good on our most important commitment: investing in our people.

The Canadian Armed Forces (CAF) has maintained its commitment not only to its members, but to their families as well. As our people continue to serve in complex and challenging environments, with varying threat levels, both at home and abroad, we have consistently delivered essential programs and services to give our troops comfort, knowing that their families are being looked after.

National Defence has a long and proud history of supporting youth through the Cadet and Junior Canadian Rangers programs and remained committed to strengthening support and expanding the reach of these important programs. We initiated the process to update the 2005 version of the [Queen's Regulations and Orders for the Canadian Cadet Organizations](#)^{cxlvii}. Although updates are expected to take a couple of years to complete, the initiation of the process demonstrates the department's commitment to these programs that are a fundamental responsibility of the CAF and will ensure the required regulations and orders are up to date and strategically aligned within the organization.

Experimentation

Defence related experimentation activities are outlined in this report under [Core Responsibility 4 – Future Force Design](#).

Key Corporate Risk(s)

One DND/CAF key corporate risk can be associated with the Defence Team core responsibility. That is: there is a risk that the CAF and DND will not have the right military and civilian personnel, in the right numbers, with the right competencies, at the right place and at the right time. As the department grows into new military and corporate capabilities to meet the evolving expectations of the military and corporate environments, there is a continued risk that we will not be able to staff the positions in a timely manner in order to effectively engage and deliver the growing breadth of efforts. This risk is prevented and mitigated through the activities of each Departmental Result below.

Departmental Result 3.1 – Canadian Armed Forces is growing towards its end state of 101,500 personnel

- The department reduced the time to enroll in the CAF by reforming all aspects of military recruiting. As directed in *Strong, Secure, Engaged* (SSE), and Operation GENERATION, the recruiting and training capacity review was completed and the implementation of new alignment initiatives commenced. Changes to the applicant reliability screening and medical screening processes have decreased recruiting timelines for certain applicants.
- The department continued to engage in comprehensive campaigning using traditional television and print advertisements targeting priority occupations, as well as hosting occupation-specific recruiting events and participating in job fairs and career events across Canada. This included the continued use of the forces.ca immersive website, along with a suite of digital attraction tools including mobile apps and virtual 360-degree videos to showcase the career opportunities offered by the CAF. It is of paramount importance to ensure the right message was and is being delivered to talented, motivated, and qualified Canadians, including those within employment equity groups, to improve awareness of priority occupations.
- To increase the number of recruits that could be trained at the Canadian Forces Leadership and Recruit School, the Basic Military Officer Qualification course was reduced from 14 weeks to 12 weeks and the Basic Military Qualification course was reduced from 12 weeks to 10 weeks. Work is ongoing on a number of initiatives in order to shorten the time when a member is employable and deployable in their occupation.
- In June 2019, the Royal Military College Saint-Jean received accreditation for the delivery of a university program in International Studies. The Royal Military College Saint-Jean continued to staff approved civilian and military positions towards the achievement of a Return to University Status. As of 31 March 2020, 18% of the intended 33 civilian positions were still not filled due to staffing delays and a shortage in the availability of specialty teachers.
- The development of a comprehensive CAF Retention Strategy continued in FY 2019-20 with the aim to keep our talented people in uniform with a welcoming and healthy work environment. The project timeline was modified to reflect changes in priorities of work and current global reality. Strategy design began in summer 2019 followed by the approval process in January 2020. The Chief of the Defence Staff (CDS) approval was expected in fall 2020 however, this will have to be revisited due to COVID-19 and its impacts to DND/CAF.



Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
3.1 Canadian Armed Forces is growing towards its end state of 101,500 personnel*	% of Regular force positions that are filled	95 - 100 %	31 March 2026	96.50%	99.23%	98.7%
	% of Reserve force positions that are filled**	95 - 100%	31 March 2026	81.47%***	77.09%	Not Available New indicator as of 2018-19
	% of occupations with critical shortfalls	0 - 5%	31 March 2020	17.90%****	16.5%	Not Available New indicator as of 2018-19

Notes:

* Departmental Result of 101,500 personnel represents the CAF Regular Force and the Reserve Force. The Reserve Force represents Primary Reserves.

** Although the ultimate target is 30 000 Average Paid Strength (APS) for the Primary Reserve, the anticipated planned growth for FY 2019-20 was to reach a level of 28 650 APS, as noted in the [Human Resources – Reserve Force Personnel](#) section of this report. The Departmental Plan 2020-21 notes that the anticipated growth for 2022-23 is set to attain a level of 29 550 APS as we continue to strive for the ultimate Primary Reserve level of 30 000.

*** The target is an aspirational target with a date to achieve target of 31 March 2026.

**** There has been an increase in the total number of trade occupations (from 103 to 106) in FY 2019-20 and an increase in the number of occupations with critical shortfalls (from 17 to 19) as a result of new trades being implemented and requiring growth. Without the changes brought by the new trade occupations, the result would have been of 16.5% again in FY 2019-20.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{cdviii}.

Departmental Result 3.2 – The health and well-being of the Defence team is well supported

- Investing in CANSOFCOM's Health and Wellness strategy (Optimizing Performance Force and Family) which promotes resilience, enhances performance and sets the conditions for optimal rehabilitation through programs across four core domains: physical; psychological; spiritual; and family.
- A Strategic Initiating Directive to modernize the Canadian Forces Health Services Group structure was developed in FY 2019-20. Once approved, it will enable the work necessary to create or make significant adjustments to, formation or unit level organizations.
- The Canadian Forces Health Services Resource Management Committee held regular meetings in FY 2019-20 to prioritize personnel demands and support decision-making on in-year resource re-allocation as required. As well, the Terms of Reference were under development for the next integrated governance body to be created - the Canadian Forces Health Services Capability Development Council.
- Under SSE Initiative 26 *Grow the Medical Services Branch to support transition care*, Canadian Forces Health Services improved support to ill and injured CAF members who may be undergoing transition through the creation of health care positions that provide occupational therapy services to help members return to work, enhanced Case Management support, and the provision of medical advice and support services to the CAF transition group. To address SSE Initiative 17 *Removing Barriers to Care*, work was undertaken to develop a survey to let members identify their perceived barriers to care. Preliminary work with health services personnel provided significant insight to their perceived barriers to their own care and continues to help inform the CAF-wide survey development.
- Canadian Forces Health Services continued to modernize its structure, governance and development of operational capabilities in support of SSE 15 *Augment Canadian Armed Forces Health Services*. They successfully increased the number of personnel in life saving surgical occupations, damage control resuscitation/forward aeromedical evacuation and other clinical occupations that support operations. They have increased capacity at the Canadian Forces Health Services Training Centre to augment health services throughput to positively influence clinical care delivery capacity at the tactical level of the organization.

- In FY 2019-20, the CAF Transition Group continued to develop tools, policies and procedures that will enable it to provide professional, standardized and personalized support to all CAF members as they transition to post-military life. A key development was the introduction of a twelve-step Initial Transition Process that came into effect 1 April 2019. This interim process mandates that members and their families are provided a window of time, tools, education, training, and support from their chain of command to explore potential retention options or confirm that they are ready to transition.
- At Transition Centres across Canada, the focus remained on meeting the ongoing needs of ill and injured CAF members, their families, and the families of the fallen. CAF Transition Group Headquarters led continued advancement in policy, training, tools, and procedures. Capability development focused on the continuation of the Borden Transition Trial, evolving to encompass all personnel transitioning out of the CAF from Canadian Forces Base Borden. An aggressive program of staffing of new positions across Canada took place in order to ensure that personnel are in place to deliver expanded programs and services in the future. Finally, the CAF Transition Group continued to lead a deliberate research program on transition to better understand the challenges faced by transitioning members and their families and to enable evidence-based decisions.



- The Total Health and Wellness of the Civilian Workforce has continued to be enhanced through a vast array of programs, services and tools:
 - The Office of Disability Management, which provides support to ill, injured and impaired employees and their managers, opened two new regional offices in Montreal and Valcartier;
 - The [Employee Assistance Program](#)^{cxlix} (EAP) launched LifeWorks, a new and innovative well-being digital platform that combines modern employee assistance and wellness programs into a holistic solution accessible anytime. Introduced for the Executive Community and their families as a one-year pilot project, feedback and data analysis on usage will inform the modernization strategy of EAP services for DND employees;
 - The EAP also reinstated [LifeSpeak](#)^{cl}, a web-based service that offers DND employees and their families' free confidential access to hundreds of short informative videos by experts on everyday issues; and
 - Additional mental health and well-being training opportunities were also provided to employees through a variety of in-person and virtual workshops, on-line courses, and participation to major events/activities involving the [Defence Team Mental Health Co-champions](#)^{cli} and subject matter experts.

- The Defence Team Workplace Well-being Survey was administered for the first time in 2018. Once the data was analyzed, an internal website was used as the mechanism to communicate the results in FY 2019-20. Going forward, the intent is to administer the Defence Team Workplace Well-being Survey every three years.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
3.2 The health and well-being of the Defence team is well supported	% of military personnel who are medically fit for their occupation	To be determined by 31 March 2021	To be determined by 31 March 2021	89.84%	90.51%	Not Available New indicator as of 2018-19
	% of military personnel who feel that the Canadian Armed Forces provides a reasonable quality of life for themselves and their families	To be determined by 31 March 2021	To be determined by 31 March 2021	56.70%	53.20%	Not Available New indicator as of 2018-19
	% of Canadian Armed Forces members who report a high level of workplace well-being	To be determined by 31 March 2021	To be determined by 31 March 2021	71.50%	64.30%	Not Available New indicator as of 2018-19
	% of civilian employees who describe the workplace as psychologically healthy	To be determined by 31 March 2021	To be determined by 31 March 2021	79%	59%	Not Available New indicator as of 2018-19

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase^{clii}](#).

Departmental Result 3.3 – The Defence team reflects the values and diversity of Canadian society

- During FY 2019-20, DND/CAF continued to work towards the full implementation of the recommendations from the [2015 External Review Authority Report^{cliii}](#), also referred to as the External Review Authority by former Justice Deschamps. Specifically, while we made progress on implementing all the recommendations, by 31 March 2020, Defence has succeeded in implementing the following recommendations:
 - Recommendation #1: Acknowledge the problem and undertake to address it;
 - Recommendation #3: Establish a Centre of Accountability;
 - Recommendation #4: Allow independent reporting without triggering a formal complaint process;
 - Recommendation #5: Develop definitions;
 - Recommendation #7: Simplify the harassment process;
 - Recommendation #8: Allow victims of sexual assault to request transfer of the complaint to civilian authorities;
 - Recommendation #9: Assign responsibility for providing, coordinating and monitoring victim support to the support centre; and

- Recommendation #10: Assign to the centre, in coordination with other CAF subject matter experts, responsibility for the development of the training curriculum, and for monitoring training on matters related to inappropriate sexual conduct.
- DND/CAF has also undertaken activities with respect to Recommendation #2 'Establish Culture Change Strategy' and Recommendation #6 'Develop unified policy approach (in a single policy using simple language)' for which progress has been encouraging and full implementation is expected in the near future.

For more information about the recommendations, please visit the [External Review into Sexual Misconduct and Sexual Harassment in the Canadian Armed Forces – Recommendations](#)^{cliv} page.

- In FY 2019-20, the [Sexual Misconduct Response Centre](#)^{clv} (SMRC) undertook a number of initiatives to ensure victims and survivors have access to the full range of services. These include:
 - Launching a [Response and Support Coordination program](#)^{clvi} to establish a consistent approach to supporting CAF members affected by sexual misconduct. Coordinators help affected members navigate systems and processes by providing support, information, referrals, case coordination, advocacy and other practical assistance;
 - Establishing the [Sexual Assault Centre Contribution Program](#)^{clvii}, which provides funding to projects proposed by sexual assault centres in communities with a significant CAF presence. The program encourages collaboration between community-based civilian service providers and CAF-linked service providers in communities. The expected outcome is that survivors in the wider CAF community are better able to cope with the effects of sexual assault and are better supported to access the support services they need. This includes anyone associated with the CAF, including family members, civilian employees, contractors and others impacted by the CAF presence in their community; and
 - Initiating work on a national-level strategy and action plan for strengthening CAF services and supports for survivors by, for example, setting standards for training and service provision as well as addressing gaps in the continuum of services.
- The CAF continued to enhance its understanding of sexual misconduct in the CAF through research, data and analysis. Specifically, the CAF supported the release of the second [Statistics Canada Survey on Sexual Misconduct in the Canadian Armed Forces, 2018](#)^{clviii} and the CAF released the [2019 Sexual Misconduct Incident Tracking Report](#)^{clix} which presents sexual misconduct data from 2016 to 2019.
- We continued to implement SSE Initiative 21 *being open and transparent with Canadians and members of the CAF about progress on addressing sexual misconduct*.
- The CAF Employment Equity Plan and Diversity Strategy continued to guide the way forward, identifying ways to strengthen the CAF where all members are encouraged to contribute the full breadth of their diverse knowledge and skills. The strategic objectives are being reviewed on a cyclical basis to ensure continued relevance and inform strategic direction for CAF policies, programs and processes addressing diversity and inclusion.
- The 2015-20 Employment Equity Plan continued to guide CAF successful implementation of key Employment Equity needs. Moderately impacted by the COVID-19 response, an Employment Systems Review that will identify objectives and Employment Equity gaps for the 2021-26 Employment Equity Plan has been initiated.

- The Diversity and Inclusion Strategy for the Executive Community has demonstrated progress that addresses employment equity and diversity gaps at the most senior levels of the department, particularly via recruitment and talent management initiatives. In FY 2019-20 the department:
 - Led and undertook a variety of initiatives that demonstrate progress in diversity and inclusion. A Human Resources Policy Framework was developed that inserts GBA+ and Diversity elements into our policies, programs and initiatives, and to ensures alignment with Treasury Board Secretariat policies;
 - Incorporated employment equity as well as GBA+ into all elements of executive recruitment and staffing to minimize bias and promote inclusion;
 - Ensured that employment equity considerations remained first and foremost for the recruitment and selection of executives. This included active advertising and promotion of job opportunities through various social media forums to ensure diverse talent was reached; and
 - Focused on various Executive Leadership Development Programs and courses, which have resulted in increased representation rates, in two of the four minority groups (Women and Visible Minorities) at the Executive Level.
- Additionally, the department implemented the following actions, via our human resources management practices to demonstrate progress on diversity and inclusion:
 - Introduced a directive to increase diversity and inclusion in the Civilian Workforce;
 - Developed a micro-aggression toolkit to raise awareness on micro-aggression and to respond to micro-aggression related inquiries. Focus continued to be placed on preventing harassment and discrimination, and ensuring a work environment that is harassment-free; and
 - Addressed diversity and inclusion consistently at various events such as executive town halls and executive orientation.
- DND/CAF continued to implement key priorities received from recently compiled diversity and inclusion evaluations. Guided by the 2020 Defence Team Human Resources Strategy, strengthened governance has been implemented to lead and synchronize diversity and inclusion coordination. Educational tools on diversity and inclusion topics, such as micro-aggression and unconscious bias, were provided to Formations/Bases/Wings.
- The recently completed Employment System Review preliminary report identified the need for more transparency and oversight to ensure manager adherence to human resources policies and guidelines with regard to employment equity, diversity and inclusion. Challenges cited include: gender bias; security clearance requirements; recognition of foreign credentials; informal networks; and professional development opportunities. In order to remove these barriers, the following actions were implemented:
 - Used targeted staffing to increase representation;
 - Created selection boards that met diversity criteria and inclusive screening process;
 - Promoted bias training that focused on unintentional bias;
 - Tracked the number of employees and managers who have completed diversity and inclusion training;
 - Created the opportunity for employees to request a mentor from diversity groups;
 - Encouraged hiring managers to use more inclusive recruitment methods; and
 - Applied GBA+ to policies and practices.

- Opportunities to support diversity and inclusion throughout the recruitment process were identified, including:
 - Promoted the prequalified pools of the Public Service Commission's Indigenous Student Employment Opportunity and Students with Disabilities Inventory throughout DND;
 - Engaged with Indigenous organizations at post-secondary institutions when conducting post-secondary outreach and recruitment across Canada;
 - Ensured that targeted staffing for Indigenous professionals is available;
 - Developed and delivered presentations about Indigenous recruitment considerations as part of a broader Indigenous Working Group; and
 - Added diversity and inclusion questions to the annual Staffing Measurement Framework surveys for managers and human resources officers to reinforce accountability for providing advice on employment equity, diversity and inclusion.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
3.3 The Defence team reflects the values and diversity of Canadian society	% of the Defence team that self-identify as a woman*	25.1% CAF or greater	31 March 2026	CAF: 16.0%**	CAF: 15.7%	CAF: 15.6%
		39.1% Civilians or greater		Civilians: Results Not Available***	Civilians: 40.4%	Civilians: 40.0%
	% of the Defence team that self-identify as a visible minority*	11.8% CAF or greater	31 March 2026	CAF: 9.40%**	CAF: 8.7%	CAF: 8.4%
		8.4% Civilians or greater		Civilians: Results Not Available***	Civilians: 8.9%	Civilians: 7.8%
	% of the Defence team that self-identify as an indigenous person*	3.4% CAF or greater	31 March 2026	CAF: 2.80%**	CAF: 2.8%	CAF: 2.8%
		2.7% Civilians or greater		Civilians: Results Not Available***	Civilians: 3.4%	Civilians: 3.1%
	% of the Defence team that self-identify as victims of harassment*	To be determined by 31 March 2021	To be determined by 31 March 2021	CAF: 16.70%	CAF: 17.7%	Not Available New indicator as of 2018-19
				Civilians: 14%	Civilians: 16%	
	% of the Defence team that self-identify as victims of discrimination*	To be determined by 31 March 2021	To be determined by 31 March 2021	CAF: 11.80%	CAF: 14.9%	Not Available New indicator as of 2018-19
				Civilians: 7%	Civilians: 7%	
	Annual number of reported incidents of Harmful and Inappropriate Sexual Behaviour in the Defence Team	To be determined by 31 March 2021	To be determined by 31 March 2021	356	256	Not Available New indicator as of 2018-19
	Number and type of actions taken in response to reported Harmful	To be determined by 31 March 2021	To be determined by 31 March 2021	Results Not Available****	256	Not Available New indicator as of 2018-19

	and Inappropriate Sexual Behaviour incidents by the Defence Team					
	% of Defence Team members who have attended a town hall or training session related to Harmful and Inappropriate Sexual Behaviour (Operation HONOUR)	To be determined by 31 March 2021	To be determined by 31 March 2021	CAF: 84%*****	Results Not Available	Not Available New indicator as of 2018-19

Notes:

* The separate CAF and Civilians results and targets are published in the above table where available. However, the results published on GC InfoBase will be the combined targets and results, containing both CAF and Civilians, as a result of reporting system limitations.

** The CAF maintains ambitious and realistic efforts, communicated through strategies and supported by ongoing initiatives, to increase representation rates as we move toward the target set for 2026.

*** The data for this indicator, provided by an organization external to National Defence, was not available at the time of the production of this report.

**** Results Not Available. This indicator has not been effective and may be misleading in representing Defence efforts regarding both the amount and nature of suitable responses and actions taken to reflect the needs of each situation. The indicator is being revisited.

***** Training related to sexual misconduct has been incorporated into all facets of CAF training, including at recruit school and in leadership training at all levels. In addition, a formal course "Respect in the CAF" has been developed, with over 11 000 members attending from 1 April 2018 to 29 February 2020. Members who have completed this course receive a course qualification, which can be accurately tracked and will be reported in the 2021-2022 DRR. The information provided is focused on the CAF member participation in [Operation HONOUR](#)^{clx} town halls and training sessions as efforts for civilian members are delivered in different formats which would not allow a valid integration of data. For this reason, the department is looking to adjust the indicator in the future and measure efforts more specifically.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{clxi}.

Departmental Result 3.4 – Military families are supported and resilient

- In November 2018, the CDS decision to formalize [Military Family Resource Centre](#)^{clxii} (MFRC) governance was announced. In spite of COVID-19 restrictions, the Governance Formalization Action Plan continued to move forward with regard to the key areas identified in the Comprehensive Military Family Plan. Within this framework, the work of the 20 working groups had been streamlined to focus on key elements necessary to serve military families immediate and ongoing needs in the wake of the COVID-19 pandemic and the compounding impact of the military lifestyle. The MFRC Governance Formalization Phase One and Action Plan was finalized and disseminated to MFRCs in June 2019 and a Governance Forum was held with all MFRCs in September 2019. The Action Plan for 2019-2021 was discussed, formalized, a work plan updated and subsequently disseminated.
- Through the Military Spousal Employment Network, two virtual career fairs were hosted to connect national employers with military spouses actively looking for employment opportunities, as well as online learning training sessions.
- The [Military Spouse Employment Initiative](#)^{clxiii} (MSEI), first launched in October 2018, hosts an open inventory on the public service jobs platform for spouses of military members to have greater access to meaningful work within the federal government as their families are relocated across Canada and internationally. In FY 2019-20, the inventory was expanded to include more career fields such as language teachers, health services, procurement, trades and services, in addition to policy officers, and was opened up to all government departments. From April 2019 to March 2020, 123 hires have been made within and outside the department.
- Work was conducted with Kids Help Phone to develop a dedicated Crisis Text Line for children and youth of military families that is scheduled to launch in the spring 2020. In addition, work progressed to secure a contract with a virtual care provider to deploy telemedicine services to military families during COVID-19, with a planned launch in mid-May 2020.

- Within the framework of the Comprehensive Military Family Plan, and in light of COVID-19 restrictions, virtual care options for military families were triaged, staged and developed in FY 2019-20. Implementation will commence in FY 2020-21.



Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019-20 Actual results	2018-19 Actual results	2017-18 Actual results
3.4 Military families are supported and resilient	% of Canadian Armed Forces families that feel they meet the challenges of military life	To be determined by 31 March 2021	To be determined by 31 March 2021	87.60%*	87.60%	Not Available New indicator as of 2018-19
	% of Canadian Armed Forces members who are satisfied with the overall support their family receives from the Canadian Armed Forces	To be determined by 31 March 2021	To be determined by 31 March 2021	67.40%	71%	Not Available New indicator as of 2018-19

Notes:

* This is the same result reported last year. The next Quality of Life Survey is planned for administration in 2021, with results to be available in 2022. For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{ckiv}.

Departmental Result 3.5 – Youth in Canada are provided with experience and opportunities that enable a successful transition to adulthood

Our Cadets and Junior Canadian Rangers Youth Program continued to be provided directly to Canadian youths and represents the largest federally sponsored youth program in Canada. In FY 2019-20, the department:

- Promulgated the Communications Strategy for Cadets and Junior Canadian Rangers for 2019-22. This strategy provides direction and guidance for strategic communications activities in support of the Cadet and Junior Canadian Rangers (JCR) programs, ensuring alignment with the communications activities of the Cadet Leagues, as well as the strategic priorities and communications policies and programs of the Government of Canada, DND and the CAF;
- Launched the Regional Growth Management Toolkit, an evidenced-based and bottom-up growth planning approach and support tool designed to help corps/squadrons build and sustain enrolment numbers, identify strategies for attraction and retention in their communities, and inform growth management and planning at the regional level;

- Conducted the Departmental Evaluation of the Cadets and Junior Canadian Rangers (Youth Program). The evaluation examined the relevance, effectiveness and efficiency of the Cadet and JCR program, with a particular focus on the structure, governance, resources and supporting partnerships that enable the successful delivery of the program;
- Promulgated the scientific letters and drafted the scientific reports related to the research on the status of former cadets. This contributed to the validation of the Cadet Program by informing the department on the status of former Cadets, their feelings about program's effectiveness, and changes in personal growth and skill acquisition attributable to their program experience. Coordination and tracking of similar research in the United Kingdom was also initiated; *What is the Social Impact Resulting from the Expenditure on the Cadet Forces*^{clxv};
- Conducted trial participation for Royal Canadian Air Cadets to attend the Civil Air Patrol Cadet Officer School. The curriculum, delivered through academic instruction, seminars, experiential learning and leadership opportunities, focuses on leadership, communication, character, airspace and cyberspace, strategic thinking, and administration; and
- Conducted a trial participation for Royal Canadian Army Cadets to attend the United States Army Cadet Command and the College Options Foundation annual championship Junior Reserve Officer Training Course – Leadership and Academic Bowl. The College Options Foundation is a not-for-profit organization dedicated to enriching the academic development of high school students and assisting them in their preparation for higher education.

Note: All student recruitment results have been included in the [Internal Services](#) section of this report.

EXPERIENCES YOU CAN'T GET ANYWHERE ELSE



Cadets of Basic Aviation and Technology Aerospace went on a trip to the Mobile Support Equipment Maintenance Work point to check out how to maintain vehicles.

Photo: Flight Sergeant Kule Chan, Albert Head CTC © 2018 DND-MND Canada.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019-20 Actual results	2018-19 Actual results	2017-18 Actual results
3.5 Youth in Canada are provided with experience and opportunities that enable a successful transition to adulthood	% of the target Canadian youth population that participates in Cadets and Junior Canadian Rangers	2% or greater	31 March 2020	2.06%	2.05%	Not Available New indicator as of 2018-19

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{clxvi}.

Budgetary financial resources (dollars)

2019–20 Main Estimates	2019–20 Planned spending	2019–20 Total authorities available for use	2019–20 Actual spending (authorities used)	2019–20 Difference (Actual spending minus Planned spending)
3,282,108,597	3,330,329,750	3,442,200,546	3,365,827,143	35,497,393

Human resources (full-time equivalents)

2019–18 Planned full-time equivalents	2019–20 Actual full-time equivalents	2019–20 Difference (Actual full-time equivalents minus Planned full-time equivalents)
20,243	20,407	164

Financial, human resources and performance information for the Department of National Defence and the Canadian Armed Forces' Program Inventory, including explanation of significant variances, is available in the [GC InfoBase](#)^{clxvii}.

Future Force Design

Description

Develop and design the future force through a deep understanding of the future operating environment and security risks to Canada and Canadian interests. Enhance Defence's ability to identify, prevent, adapt and respond to a wide range of contingencies through collaborative innovation networks and advanced research.

Results

The future security environment presents a vast array of complex defence and security challenges that transcend national borders. In order to keep pace with our allies, and potential adversaries, it is imperative that the Canadian Armed Forces (CAF) prioritizes efforts to design our future force.

Future force planning is a long-term and continuous activity that seeks to address future threats and defence and security challenges with innovative solutions.

The Department of National Defence (DND)/CAF continues to support the ongoing implementation of the defence policy, *Strong, Secure, Engaged* (SSE). This includes traditional decision-making support to the Chief of the Defence Staff (CDS) through a progressive approach designed to build on capabilities from year-to-year. The intra-departmental alignment and validation was done through different review processes, such as the Defence Capability Board and the Independent Review Panel for Defence Acquisition. These reviews and other analysis efforts aimed to verify and streamline the procurement process. These activities continued to be informed by the published Force Capability Plan and Joint Capstone Concept.

Effective innovation is critical for modern armed forces operating in a highly complex, increasingly contested global security environment. To be successful, DND must exploit every type of advantage. Highlights from FY 2019-20 include:

- Research began on all aspects of the military applications of Artificial Intelligence (AI), including AI and ethics. This research supports operations and provides strategic advice on all the categories of the SSE policy's initiatives; and
- This research created applications in logistics (resource allocation) and provided advice on social media analytics, video surveillance and space applications.

Defence Science, Technology and Innovation has provided a way forward for AI Science and Technology projects and activities. Innovation for Defence Excellence and Security (IDEaS) has funded work related to AI in two ways:

- Supporting Canadian university-led research clusters (more commonly known as micro-nets), which include industry and government sector partnerships stimulating collaboration and sharing ideas critical to innovation in order to support the eventual development of real-world solutions for the CAF. In this area, IDEaS has funded six contribution agreements, with a value of up to \$1.5 million each, related to autonomous systems, specifically seeking innovative solutions around trust and barriers to adoption; and
- Through its Competitive Projects element, IDEaS has launched several challenges where innovators are using AI as part of their solution. Under its first call for proposals, the program awarded 19 contracts with a value of more than \$3 million for projects which proposed AI solution models. These ranged from supporting recruitment to the detection and classification of objects of interest. The program has advanced 30% of these projects to the second phase of funding, which are up to \$1 million each over a period of a year.

In addition, DND/CAF is a member of the Government of Canada Cyber Skills Developmental Working Group (chaired by Public Safety), focused on Human Resources and training of the Civilian Cyber Workforce. Defence is in the process of awarding a contract to a civilian educational institution to deliver

Developmental Period (DP1) Cyber Operator training and recruiting centres have started to process unskilled candidates for this training.

In accordance with SSE and the *Communications Security Establishment Act* (CSE), DND/CAF and CSE have complimentary roles in the development, planning, and conduct of cyber operations in support of Government of Canada objectives. Furthermore, the establishment of the Canadian Centre for Cyber Security formalized CSE's role in the protection of Government of Canada networks, including those of DND/CAF. The department's Cyber Program calls for close collaboration with CSE, including the Canadian Centre for Cyber Security, to support the development, planning and employment of cyber forces across the spectrum of operations.

The Continental Defence Policy function will deliver on SSE initiative 111 and contribute significantly to Future Force Design. More details on SSE Initiative 111 can be found on page 90 of the [Strong, Secure, Engaged: Canada's Defence Policy](#)^{clxviii}.

Experimentation

Defence related experimentation activities are outlined in this report throughout the activities under Core Responsibility 4 – Future Force Design.

Key Corporate Risk(s)

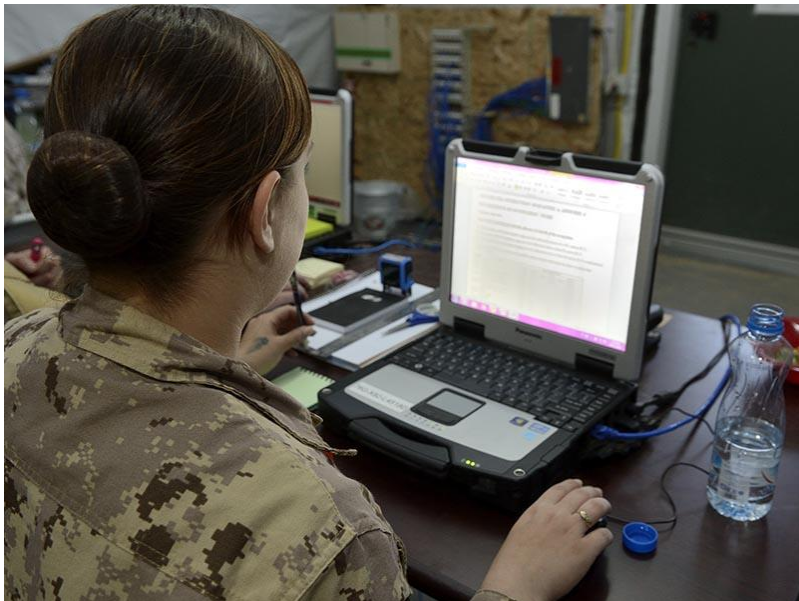
There are no key corporate risks associated with the Future Force Design core responsibility at this time.

Departmental Result 4.1 – Defence capabilities are designed to meet future threats

- Through joint calls to departmental stakeholders, DND/CAF and the Chair of the department's science and technology committee have worked collaboratively to undertake problem identification and scoping in order for the [Innovation for Defence Excellence and Security](#)^{clxix} (IDEaS) program to develop well defined challenges that can be issued to the Canadian innovator community. This has resulted in challenges that are better aligned to current science and technology activities and ensured that DND/CAF needs and priorities remained focused on getting the best solutions from Canadian innovators.
- The department continued the key tasks of the Force Mix Structure and Design (FMSD) work to realign the CAF's structure, and ensure it can deliver the operational concurrency required by SSE. Specifically, the department conducted structure analysis and developed initial estimates based on force employment demand modelling and supporting force generation and institutional structure estimates for the Chief of the Defence Staff (CDS) to inform discussion/direction & guidance on proposed refinement to FMSD work.
- During FY 2019-20, DND/CAF began a new Capability Based Planning cycle, informed by collaborative Future Operating Environment work with our Five Eyes allies (Australia, Canada, New Zealand, the United Kingdom and the United States). This cycle was grounded in the SSE capability investment path and took into consideration NORAD and NATO requirements. Highlights include:
 - Provided support in fulfilling CAF inputs to the NATO Defence Planning Process. In addition, the department engaged with NATO in concept development activities meant to inform and shape long-term improvements in the NATO Defence Planning Process; and
 - The first year of the three-year Capability Based Planning cycle was completed. This consisted of conducting scenario-based analysis utilizing force development scenarios informed by, amongst other sources, SSE and the Five-Eyes Future Operating Environment. The analysis was conducted by an experienced and diverse team of representative-specialists from across DND/CAF.

- Defence worked closely with Public Safety Canada to advance the new [Cyber Security Strategy](#)^{clxx}, published in May 2019 and is a member of numerous pan-Government of Canada cyber fora, including the Interdepartmental Cyber Engagement Working Group, the Director General Cyber forum, and the Cyber Skills Development Working Group. We continue to leverage our close partnership with Shared Services Canada and the Communication Security Establishment Canada regarding the operation, monitoring and protection of DND/CAF enterprise networks. In addition, through the department's Cyber Mission Assurance Program, we are engaging other departments and agencies to identify, evaluate, and investigate the defence of critical infrastructure upon which the DND/CAF depends to conduct operations in support of Government of Canada objectives.
- DND/CAF continued to advance a Cyber Mission Assurance Program in order to provide high level governance and guidance to enhance cyber resiliency across the department. The program is establishing a risk management framework to guide monitoring and auditing of operational performance in materiel, and is holding discussions with other government departments and agencies regarding the defence and protection of critical infrastructure affecting the CAF's operational readiness.
- Defence has continued to work with allies and, in partnership with allies, will invest in the reliable access of satellite communication constellations in support of DND/CAF operations across the globe. Defence began renewing existing agreements with allies to ensure continued access to commercial and military satellite communications for the next decade.

Defence Capabilities - Cyber



The cyber domain is an increasingly important part of military operations and Canada's military Cyber Operators work to both protect domestic networks as well as conducting cyber operations.

Photo: Sergeant Frank Hudec, Canadian Forces Combat Camera.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
4.1 Defence capabilities are designed to meet future threats	Extent to which the Future Security Environment assessment remains valid	2 on a 3 point rating scale*	31 March 2020	2	2	Not Available New indicator as of 2018-19
	Degree to which future security assessments and capability deductions remain coherent with those of our allies and partners	2 on a 3 point rating scale**	31 March 2020	2	2	Not Available New indicator as of 2018-19
	Degree to which future capabilities required to ensure an operational advantage over defence and security threats have been accounted for in defence plans	2 on a 3 point rating scale***	31 March 2020	2	2	Not Available New indicator as of 2018-19

Notes:

* During the Future Security Environment (FSE) validity period of four years, the FSE document will be assessed annually through internal Canadian Armed Forces foresight and allied collaboration analysis activities. Should these analysis activities identify significant issues, the Chief of Force Development will indicate the intent to produce an updated FSE with anticipated milestones.

** During the Future Security Environment (FSE) validity period of four years, the Force Capability Plan (FCP) and Investment Plan (IP) are reviewed annually through internal Canadian Armed Forces and allied collaboration analysis activities. Should these analysis activities identify significant issues, the Chief of Force Development will indicate the intent to produce updated documents with anticipated milestones.

*** During the Future Security Environment (FSE) validity period of four years, the Force Capability Plan (FCP), Investment Plan (IP) and Force Development scenario sets are assessed annually through internal Canadian Armed Forces analysis activities. If significant issues are identified, the Chief of Force Development will signal the intent to produce updated documents with anticipated milestones.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{clxxi}.

Departmental Result 4.2 – Defence and security challenges are addressed through innovative solutions

- In July 2019, the first [IDEaS program Annual Report](#)^{clxxii} was published – reporting on FY 2018-19. IDEaS program elements are aimed at improving Defence and Security capabilities, while generating economic benefits to Canada. IDEaS will provide support and opportunities to innovators, incentivize the development of solutions, and provide opportunities for the integration and adoption of solutions and new capabilities. During FY 2019-20 the IDEaS program has:
 - Launched 24 challenges through its Competitive Projects elements aimed at various priority areas for DND/CAF. IDEaS has been able to put into place over 210 contracts representing more than \$32 million in funding for individuals and organizations across Canada;
 - Conducted a [Sandbox challenge](#)^{clxxiii} where selected innovators were invited to test and demonstrate technologies created to detect and defeat Unmanned Aerial Vehicles (UAV, commonly called “drones”);
 - Launched a [Sandbox for Corrosion Detection in Ships](#)^{clxxiv} which received 21 applications;

- Launched a Contest, entitled “[Pop-up City: Integrated Energy, Water and Waste Management Systems for Deployed Camps^{clxxxv}](#)”; and
- Awarded 12 contributions, in the amount of up to \$1.5 million each, to Canadian university led research micro-nets. These micro-nets stimulate collaboration and the free flow of ideas critical to innovation in order to support the eventual development of real-world solutions for the CAF.
- Prioritized Arctic Joint Intelligence, Surveillance and Reconnaissance for defence research and development and invested close to \$133 million from 2015 to 2020 to inform decisions on surveillance capabilities.
- Through the [All Domain Situational Awareness Science and Technology Program^{clxxxvi}](#), supported a variety of research and analysis projects contributing to the development of options for enhanced domain awareness of air, maritime surface and sub-surface approaches to Canada, in particular those in the Arctic. In collaboration with the United States, the program has advanced a number of candidate technologies and employment concepts which have better positioned DND/CAF for Continental Defence and NORAD Modernization decisions on future investments. The provision of strategic science and technology advice will continue into FY 2020-21. The program also contributed to the first-ever bi-national Northern Approaches Surveillance Analysis of Alternatives, studying innovative technological solutions to airspace surveillance, which is scheduled to be completed in FY 2020-21.
- Made significant advancements for science and technology related to whole-of-government security and event planning. These include:
 - A framework has been developed for inter-police response to critical events in the National Capital Region, allowing several law enforcement agencies to properly respond to critical events that require the involvement of police forces within multiple jurisdictions;
 - Work has begun to extend this framework to permit federal, provincial and municipal police responses across Canada;
 - Science and technology related to physical security has also been advanced through new scanning and screening technologies for parliamentary security; and
 - Work on secure data communications and data sharing, helping the Royal Canadian Mounted Police (RCMP) was advanced.
- DND/CAF advanced work on alternative energy options and their potential use for operations. During FY 2019-20, we:
 - Sought ruggedized wind turbines for the Arctic to reduce the reliance on diesel fuel generated power;
 - Continued to look for innovative power storage and power generation solutions for dismounted soldiers, to increase soldiers’ autonomy, decrease the physical and cognitive burden of power storage technologies, and decrease the costs of fielding and exploiting wearable power technologies;
 - Overcame scientific and technical barriers that prevent or limit the ability to field electromagnetic and gravimetric quantum-sensing systems for Defence and Security purposes to reduce power consumption requirements of existing technologies; and
 - Continued searching for existing solutions, modifications to existing solutions, or new innovations to address the inefficiencies in the current utilities systems for relocatable temporary camps by reducing the fuel consumption or the water resupply or waste removal.

- In FY 2019-20, several science and technology activities targeted increased operational endurance and improved energy efficiencies for reduced electrical loads, fuel consumption and greenhouse gases for soldier, camp, fixed infrastructure and ship platforms. The science and technology work was conducted primarily through partnerships with federal laboratories at the National Research Council and Natural Resources Canada's CanmetENERGY and industry. Some highlights include:
 - Conducted an energy audit and future energy saving technologies assessment of shelter systems in extreme cold environments under a Canadian Joint Operations Command-sponsored Joint Arctic Experiment to advise and model energy reduction methods towards achieving identified Defence Energy and Environmental Strategy (DEES) targets for deployed camps;
 - Completed a data discovery of Halifax-class frigates that enabled identification of 10% fuel reduction target for Ship Platform Exploitation of Energy Datasets, funded through Greening Government Fund program;
 - The technological upgrade enabled the unmanned operation of underwater acoustic arrays deployed in the Canadian Arctic to operate five months longer;
 - Enhanced evidence-based decisions through a number of science and technology activities that will contribute to DND/CAF transitioning to a data-driven organisation, including:
 - Developed a new approach to diagnose the root causes of certain results from the Public Service Employee Survey (future development of this approach will be a key DND/CAF contribution to the Government of Canada Beyond2020 initiative);
 - Conducted predictive analytics on financial data to improve how DND/CAF is making forecasts in-year and out-year, and informed Deputy Minister decisions;
 - Leveraged commercial cloud for data science in DND/CAF for natural language processing to publish interactive dashboards and to work collaboratively with NATO allies; and
 - Deployed predictive analytics models, including an enrollment forecast model.
 - Provided science, technology and innovation advice as next steps in adopting an enterprise approach to drive analytics adoption throughout DND/CAF:
 - Provided key guidance internally on the development of an Analytics Vision and Operating Model for the DND/CAF; and
 - Provided advice to leadership on the capabilities and limitations of automated.
- DND/CAF advanced defensive and offensive cyber operations through challenges presented in the IDEaS program. In addition, through close cooperation with the Canadian Joint Warfare Centre, CSE and other stakeholders, DND/CAF has continued to:
 - Codify authorities, accountabilities, and responsibilities;
 - Discuss the future nature of continental defence as viewed by NORAD;
 - Integrate with NATO and other allied processes;
 - Detail out the nature of intelligence support necessary for cyber operations;
 - Develop the targeting process in relation to cyber input; and
 - Conceptualize how emergent technology like cloud-based resources will impact cyber operations.

Defence Science and Technology - Communications



Signals Officers deliver telecommunications services to the CAF, especially the Canadian Army and command units. They work with command support equipment and systems that include:

- Purpose-designed, computer-based information systems that assist with battlefield command and control, reconnaissance and surveillance, and target acquisition;
- The full spectrum of radio systems;
- Electronic Warfare capabilities;
- Cyber Warfare capabilities; and
- Cryptographic and communications, security capabilities.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
4.2 Defence and security challenges are addressed through innovative solutions	% of initiatives and projects that are supported by Defence Science and Technology	90%	31 March 2021	30%*	30%	Not Available New indicator as of 2018-19
	% of Innovation for Defence Excellence and Security (IDEaS) projects that resulted in useful advice, adoption, integration or eventual procurement of a new defence and security capability	20% or greater	31 March 2022	5.5%**	Not Available New indicator as of 2018-19	Not Available New indicator as of 2018-19

Notes:

* This indicator has not been effective and may be misleading in representing DND efforts with respect to initiatives and projects that are supported by Science, Technology, and Innovation. The indicator will be revisited as we continue to develop and improve our ability to address defence and security challenges through innovative solutions with the Defence Team.

** 5.5% of funded contracts launched under IDEaS that have been completed, and results & advice communicated to DND/CAF stakeholders. Adoption, integration and eventual procurement will result as these funded projects mature and solutions advance. Date to achieve target is 2022.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit

[GC InfoBase](#)

Budgetary financial resources (dollars)

2019–20 Main Estimates	2019–20 Planned spending	2019–20 Total authorities available for use	2019–20 Actual spending (authorities used)	2019–20 Difference (Actual spending minus Planned spending)
932,743,071	941,793,597	936,937,509	758,767,329	(183,026,268)

Human resources (full-time equivalents)

2019–20 Planned full-time equivalents	2019–20 Actual full-time equivalents	2019–20 Difference (Actual full-time equivalents minus Planned full-time equivalents)
2,669	1,930	(739)

Financial, human resources and performance information for the Department of National Defence and the Canadian Armed Forces' Program Inventory, including explanation of significant variances, is available in the [GC InfoBase](#)^{chxxviii}.

Procurement of Capabilities

Description

Procure advanced capabilities to maintain an advantage over potential adversaries and to keep pace with Allies, while fully leveraging defence innovation and technology. Streamlined and flexible procurement arrangements ensure Defence is equipped to conduct missions.

Results

The Department of National Defence (DND) continued to procure advanced capabilities to maintain an operational advantage over potential adversaries and to keep pace with allies, while fully leveraging defence innovation and technology.

Effective defence procurement remained vital to ensure the Canadian Armed Forces (CAF) had the necessary range of capabilities required to protect and defend Canada and Canadians. To achieve this goal, it was necessary to reform Canada's procurement model, reducing complexity and redundancy, in order to ensure the timely delivery of projects. During FY 2019-20, the department:

- Leveraged procurement to incentivize research and development in emerging technology areas through the application of Industrial and Technological Benefits policy; and
- Personnel continued to work with Innovation, Science and Economic Development Canada and Public Services and Procurement Canada to develop Value Propositions under the Industrial and Technological Benefits policy to ensure that defence procurement dollars continued to drive investment in emerging technologies aligned with government priorities.

Experimentation

Defence related experimentation activities are outlined in this report under [Core Responsibility 4 – Future Force Design](#).

Key Corporate Risk(s)

One DND/CAF key corporate risk can be associated with the Procurement of Capabilities core responsibility. There is a risk that the complexity of development, program approval and procurement processes will prevent DND/CAF from meeting our investment targets in critical physical assets. This risk is prevented and mitigated by many of the controls articulated as activities of each Departmental Result below.

Departmental Result 5.1 – Defence procurement is streamlined

- In FY 2019-20, the department reduced departmental approval times through:
 - Continued collaboration with Public Services and Procurement Canada and Treasury Board of Canada Secretariat on the 18-month pilot project initiated in fall 2018 to evaluate a risk-based approach for defence procurement contract approvals in support of *Strong, Secure, Engaged* (SSE). A total of 16 contract authority submissions were progressed under this pilot project, 13 of which were progressed during FY 2019-20. The pilot project finished in March 2020 and will be followed by an evaluation report, which will include an assessment of the time savings realized through the streamlined risk-based approval process;
 - Initiatives such as the Tailored Project Approval Process (formerly known as Project Approval Process Renewal) continued to result in reduced approval process time, specifically in the later phases of the projects, eliminating the requirement for multiple Expenditure Authority approvals by the Minister of National Defence; and

- In June 2019, contracting authorities for competitive services contracts increased from \$1 million to \$5 million, further streamlining our procurement process. This increase allows DND/CAF to handle over 80% of contracts in-house.
- To increase transparency and timeliness of communication with defence industry associations, the established advisory group has undergone discussions with defence industry representatives on crosscutting issues in defence procurement which have helped inform the government's procurement approach. The advisory group facilitates coordinated dialogue and increased stakeholder engagement between the government and the defence industry.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019-20 Actual results	2018-19 Actual results	2017-18 Actual results
5.1 Defence procurement is streamlined	% of projects that meet the approved project development and approval timelines (low risk and low complexity projects)	100%	31 March 2020	Results Not Available*	Not Available New indicator as of 2018-19	Not Available New indicator as of 2018-19
	% of projects and services contracts that are awarded within established performance targets	100%	31 March 2020	92%**	100%	Not Available New indicator as of 2018-19

Notes:

* Statistics cannot be provided until the closure of the initiative so that there is a larger data set. The Full Operating Capability date was delayed to July 2021.

** Contract award was impacted by the additional internal approval procedures implemented leading up to the Federal Election.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{clxxx}.

Departmental Result 5.2 – Defence equipment acquisition is well-managed

- The department continued to grow and professionalize the procurement workforce to strengthen the capacity to manage the acquisition and support of today's complex military capabilities. Key highlights for FY 2019-20 include:
 - The department has seen a steady growth in the procurement workforce; specifically, 1.5% overall military and civilian growth for FY 2019-20;
 - The Learning Strategy continued to ensure that the ensuing Implementation Strategy remained aligned with the competencies required of Materiel Acquisition and Support; and
 - Work continued towards becoming full participants in the International Defense Education and Acquisition Memorandum of Understanding to Leverage International Best Practices. In particular, DND/CAF investigated partnership opportunities with the Defense Acquisition University in the United States.
- Highlights from FY 2019-20 on the department's major equipment projects:
 - The [Fixed-Wing Search and Rescue Aircraft Project](#)^{clxxx} – To acquire 16 CC-295 to take over the search and rescue duties currently being undertaken by six CC-115 Buffalo aircraft and 12 CC-130H Hercules aircraft. On 18 December 2019, Canada took delivery of the first CC-295 aircraft in Spain;

- The [Arctic and Offshore Patrol Ships Project](#)^{clxxxix} (AOPS) – To construct and deliver six Arctic and Offshore Patrol Vessels (AOPV) for the Royal Canadian Navy (RCN). In May 2019, construction began for the fourth AOPV, the future Her Majesty's Canadian Ship (HMCS) *William Hall* and construction of the seventh and eighth AOPV for the Canadian Coast Guard was announced, which will further mitigate the remaining production gap. In November 2019, Canada's second AOPV was launched in Halifax, the future HMCS *Margaret Brooke*;
- The [Joint Support Ship Project](#)^{clxxxix} – To deliver two new support ships to replace the RCN's Auxiliary Oiler Replenishment vessels that have reached the end of their service lives. The project progressed the finalization of the Joint Support Ship design and the early construction of blocks which started in June 2018. The RCN celebrated a construction milestone for its future HMCS *Protecteur* with a keel laying ceremony held 16 January 2020 at Seaspan Vancouver Shipyards;
- The [Canadian Surface Combatant Project](#)^{clxxxiii} – To build 15 ships to recapitalize the CAF's surface combatant fleet. Following the selection of a starting point design and a design team in February 2019, and the award of the resulting Definition Contract and Definition Subcontract, the Project achieved substantial completion of Requirements Reconciliation in November 2019 and commenced Preliminary Design;
- The [Future Fighter Capability Project](#)^{clxxxiv} – Comprises the acquisition of 88 advanced fighter aircraft and associated capability. The project released the Request For Proposal on 23 July 2019 and completed the assessment of the preliminary security offers in February 2020;
- The [Medium Support Vehicle Systems Project](#)^{clxxxv} – To acquire a new fleet of medium capacity logistics trucks to replace our current fleet, in service since the 1980s, and acquire new ISO container-based mobile workspaces. The project has delivered all 1 587 trucks and 322 trailers. 135 of 161 Armoured Protection Systems have been delivered with expectation to complete delivery of remaining quantities in July 2020. The project also plans to extend the in-service support contract to continue supporting the fleet;
- The [Light Armoured Vehicle III](#)^{clxxxvi} (LAV III) Upgrade – The LAV III is the backbone of domestic and expeditionary task forces. 2019 saw the final delivery of the LAV III Upgrade, which modernized 550 LAV III to the new LAV 6.0, extending the life span of the LAV to 2035; and
- [Modernize and grow our CH-149 Cormorant search and rescue fleet](#)^{clxxxvii} – In FY 2019-20, the Cormorant Mid-Life Upgrade Project entered into Definition Phase where DND progressed activities leading to a defined configuration of the upgraded helicopters and a training solution, resulting in the release of a Request For Proposal in January 2020.

For more details on these and other projects, refer to the following website(s):

- [Investing in Equipment and Current Projects](#)^{clxxxviii}.

Fixed-Wing Search and Rescue Aircraft Replacement



A maintenance training variant of Canada's new CC-295 Search and Rescue aircraft takes to the sky in Spain.

Photo: Airbus Defence & Space

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
5.2 Defence equipment acquisition is well-managed	% of capital equipment projects that remain in approved scope*	100%	31 March 2020	100%	100%	100%
	% of capital equipment projects that remain on approved schedule*	100%	31 March 2020	100%**	81.25%	56%
	% of capital equipment projects that remain within approved expenditure authority*	100%	31 March 2020	100%**	100%	100%

Notes:

* The indicator is focused on the progress planned for FY 2019-20, reflecting whether the planned progress of the project has been achieved.

** For more information on this indicators methodology please refer to [GC InfoBase](#)^{ch000ix}.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{cx}.

Departmental Result 5.3 – Defence information technology acquisition is well-managed

- Efforts have continued to expedite the delivery of information technology capability within DND while ensuring adequate oversight and stewardship of public funds. During FY 2019-20, the focus has been on the following efforts:
 - Contributed to the new guidelines and directives contained in the new DND Project Approval Directive and used the new inherent flexibility and tailored approaches to expedite delivery of our Major Capital Information Management (IM) and Information Technology (IT) projects; and

- Continued to use a balanced approach where urgent/smaller capability requirements have been delivered quickly via the orchestration of IM/IT Minor Projects while larger efforts have been progressed via Major Capital Projects.
- DND has fully delivered and reached full operational capability for the following projects over FY 2019-20:
 - Defence Cryptographic Modernization Project – Identification of Friendly or Foe Mode 5;
 - Defence Cryptographic Modernization Project – Network Encryption Family; and
 - Grey Goose Project.
- Due to dependencies on other organizations that experienced delays, the Defence Biometric Collection and Identification Management project and the Juniper Green project did not reach full operational capability as originally planned.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
5.3 Defence information technology acquisition is well-managed	% of information technology projects that remain in approved scope	100%	31 March 2020	100%	94%	100%
	% of information technology projects that remain on approved schedule	100%	31 March 2020	94%*	88%	95%
	% of information technology projects that remain within approved expenditure authority	100%	31 March 2020	100%**	100%	100%

Notes:

* Deviations in schedule (6%) were the result of unforeseen delays in contractor delivery of capability.

** For more information on this indicators methodology please refer to [GC InfoBase^{cxci}](#).

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase^{cxci}](#).

Departmental Result 5.4 – Supplies are available and well-managed

- DND/CAF continued to enhance materiel accountability by implementing modern, effective inventory controls, supply chain management, and inventory valuation. In FY 2019-20:
 - Commenced the development of an analytics capability, which will provide an integrated view of all Defence Supply Chain activities at the tactical, operational and strategic levels of the organization, providing end-to-end visibility;
 - Various strategic level initiatives intended to re-align, modernize, and streamline the Defence Supply Chain have commenced and continue to evolve. The Defence Supply Chain Governance Charter was also approved as a first step towards improving the end-to-end governance of the Defence Supply Chain;
 - Received approval of the proposed Performance Measurement Framework concept in March 2020;
 - Completed policy and process updates, encompassing multiple improvements to internal business processes to ensure optimal alignment between materiel planning, materiel management and disposal. The department has undertaken, and continues to undertake, modernization initiatives that improve alignment between business policy, processes and the integrated Enterprise Resource Planning tool for improved materiel management; and

- Continued to progress a transformation agenda that will modernize the Defence Supply Chain. The Automatic Identification Project progressed to the Definition Phase and is on schedule to deliver mobile barcode reading technologies which will enhance materiel traceability and data accuracy. The Materiel Identification initiative progressed steadily towards implementation with the intention to modernize materiel identification policy and deliver tools to support the generation of quality materiel master data.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019-20 Actual results	2018-19 Actual results	2017-18 Actual results
5.4 Supplies are available and well-managed	% of stock that is unavailable to meet forecasted demand	Less than 7.93%	31 March 2020	7.61%	5.72%	5.85%
	% of stock that is identified as surplus	To be determined by 31 March 2020	To be determined by 31 March 2020	1.67%	Results Not Available	Not Available New indicator as of 2018-19

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase^{excliii}](#).

Budgetary financial resources (dollars)

2019-20 Main Estimates	2019-20 Planned spending	2019-20 Total authorities available for use	2019-20 Actual spending (authorities used)	2019-20 Difference (Actual spending minus Planned spending)
3,132,405,450	3,135,440,658	3,724,452,818	3,298,055,560	162,614,902

Human resources (full-time equivalents)

2019-20 Planned full-time equivalents	2019-20 Actual full-time equivalents	2019-20 Difference (Actual full-time equivalents minus Planned full-time equivalents)
2,339	2,427	88

Financial, human resources and performance information for the Department of National Defence and the Canadian Armed Forces' Program Inventory, including explanation of significant variances, is available in the [GC InfoBase^{excliv}](#).

Sustainable Bases, Information Technology Systems and Infrastructure

Description

Develop and manage modern, operational and sustainable bases and infrastructure. Contribute to the achievement of federal environmental targets.

Results

Canadian Armed Forces (CAF) bases and wings are at the centre of military life across Canada and abroad. They are essential to supporting soldiers, sailors, airmen and airwomen to ensure the CAF is ready to successfully conduct and support operations when called upon by the Government of Canada. Bases and wings are home to operational and support units and many serve as training facilities for our soldiers, sailors, airmen and airwomen, so that they can be successful on operations.

Personnel at CAF bases and wings provided essential materiel support and services critical to military training and operations. A vast array of vital services were delivered, including operational and emergency services, logistic and technical support services, information technology services, safety and environment services, and administration and personnel services, to enable personnel to fulfill their occupational and training requirements, to support defence activities, and to sustain military operations.

The Defence Team continued to administer the largest infrastructure portfolio in the federal government. Maintaining modern and sustainable infrastructure, that supports military requirements, improves efficiency, reduces our energy and environmental footprint, is a critical enabler for CAF operations.

To meet our commitment to ensure that the Department of National Defence (DND)'s real property portfolio is efficient and effective, the department continued to identify and assess properties that are surplus to the military's needs so that our efforts and resources are focused on supporting property that serves DND. When a property is no longer required to support CAF operations or has no value to military members and families, the site is declared as surplus. To date, 42 properties have been identified for possible transfer or sale. DND takes a responsible and responsive approach when considering the transfer or sale of real property. This includes multiple site assessments (heritage, security, environmental, and market-value reviews), as well as consultations with local communities, other levels of government and Indigenous groups.

DND delivered several enterprise-level Information Technology system solutions to address cyber security deficiencies, including:

- A system solution that provides greater awareness of core networks which, when combined with other pre-existing tools, allows for continuous monitoring of DND's assets;
- Expansion of an existing tool that focused on DND Command and Control deployed networks, enabling DND Cyber Operators to take swift remediation actions on internet-facing networks that are high risk;
- Deployment of an engineered Data Loss Prevention solution that collects data loss prevention information to allow for the creation and enforcement of new information technology security controls in FY 2020-21; and
- A pilot cross-domain access solution for DND's classified distribution system has been initiated. It allows users to tunnel through existing infrastructure to gain secure access to systems previously at risk.

Experimentation

Defence related experimentation activities are outlined in this report under [Core Responsibility 4 – Future Force Design](#).

Key Corporate Risk(s)

Two DND/CAF key corporate risks can be associated with the Sustainable Bases, Information Technology Systems and Infrastructure core responsibility. There is a risk that DND/CAF cannot develop, manage, maintain, renew, and build modern, operational and sustainable bases and infrastructure which will affect program/service delivery, training, and could have legal liability consequences. There is also a risk that technology tools could impede DND/CAF's ability to effectively operate/do business. Many of the preventative and mitigating controls for these risks are articulated as activities of each Departmental Result below.

Departmental Result 6.1 – Naval, Army and Air Force Bases enable military operations and defence activities

- To improve how the department measures common essential services delivered on CAF bases and wings, common service delivery areas were identified and two new initial performance indicators were developed to measure the effective delivery of food services and the availability of single quarters accommodation on CAF bases and wings. These interim measures come into effect for FY 2020-21.
- The Canadian Army (CA), with 21 bases and training establishments located across the country, initiated studies on food services and temporary accommodation services during summer 2019. The results of the studies will be implemented as part of a larger multi-year approach, with several more studies on other services planned for future years. As the studies and their analysis progresses, the CA continues to refine the various types of services provided in support of the operational readiness of the CAF. With these multiple efforts underway, the expected implementation timeline lays beyond FY 2023-24.

For information, refer to the following webpages:

- [Royal Canadian Navy bases](#)^{CXCV}
- [Canadian Army bases](#)^{CXCVI}
- [Royal Canadian Air Force wings](#)^{CXCVII}

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
6.1 Naval, Army and Air Force Bases enable military operations and defence activities	Degree to which Bases are supporting their units in carrying out their mandated duties	To be determined	To be determined	Results Not Available*	Results Not Available*	Not Available New indicator as of 2018-19

Notes:

* Result is not available due to the absence of relevant data. A refined performance indicator and associated data will be available for FY 2020-21.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase](#)^{CXCVIII}.

Departmental Result 6.2 – Defence infrastructure is well-managed throughout its lifecycle

- DND defined its operational requirement and began updates to the existing departmental living accommodation policy. DND revised its timeline for completing the living accommodation policy suite from November 2020 to spring 2024.

- DND accelerated the development of a long-term low-risk housing investment plan identifying the work, time and resources needed to meet its housing requirements. The revised timeline for completing the living accommodation policy will delay the delivery of the housing investment plan, but the goal remains to implement a residential housing accommodation plan one year after producing a revised living accommodation policy.
- The Defence Team continued work towards improving infrastructure on bases and wings, including required off-base/wing office space and housing for CAF personnel. Work began on developing the National Accommodation Framework and Strategy. The framework will promote better management and maintenance of Defence infrastructure, and the strategy will optimize accommodations by better using and assigning space to the Defence Team.
- In FY 2019-20, DND demolished 78 obsolete buildings that were beyond economic repair on bases and DND establishments. The money previously allocated to maintaining these 78 buildings will be reinvested in the infrastructure portfolio to maintain existing facilities needed to support operations, activities and equipment.
- As of the end of FY 2019-20, the Divestment program identified 42 surplus properties, with work taking place on 20 of the 42.
- Over 40 projects totalling \$2 billion have been designed and implemented using Leadership in Energy and Environmental Design and Green Globes tools since 2012.
- DND continued to implement energy performance contracts, purchase renewable power, green our commercial vehicle fleet, and invest in energy efficient buildings across the country to reduce our greenhouse gas emissions. The department is working with Defence Construction Canada and Public Services and Procurement Canada on implementing this energy program, which includes smart building technology and analytics to improve the energy efficiency of Defence facilities.
- DND worked with other federal departments and Indigenous groups to support Canada's renewable industry and purchase clean energy to power Defence facilities in Alberta, Saskatchewan, Ontario, Nova Scotia and New Brunswick. DND facilities in these provinces account for approximately 98% of the department's electricity-related greenhouse gas emissions. These projects will help reduce our carbon footprint and contribute to the federal target of using 100% clean electricity at all federal buildings by 2022, where available.
- DND continued to transform its real property and portfolio management by delivering infrastructure programs that enable and support the Defence mandate and adapting the organization's structure to better align with industry best practices for corporate real estate managers. The department is working to finalize the DND Real Property Portfolio Strategy in FY 2020-21. A key sub-set of this Portfolio Strategy, the DND National Accommodation Strategy, is also expected to be implemented in FY 2020-21.
- The Defence Team continued to explore ways to partner with the private sector. Work continued on performance-based contractual agreements, leveraging performance indicators to support continual improvement. In addition, work on service standards, innovative procurement tools, and a quality monitoring framework for performance-based contracting was ongoing during FY 2019-20.
- The construction of a [new infrastructure project at Canadian Forces Base Bagotville^{ccix}](#) was announced. This project includes the construction of a 13 000-m² modern and green multi-purpose facility and the development of a 23 800-m² area to be used for deployment preparation, as well as equipment storage and maintenance.
- Construction was completed on the new [Jetty NJ at Canadian Forces Base \(CFB\) Halifax^{cc}](#).
- Construction was started on a [new sports facility at the Saint-Jean Garrison^{cci}](#). This project will better support the physical fitness needs of an increasing number of CAF recruits and Garrison personnel.

- Short term [runway repairs at 5 Wing Goose Bay^{ccii}](#) were completed. Additional repairs were also announced.

For more information, consult the [Investing in Infrastructure and Infrastructure Projects^{cciii}](#) webpage.

Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
6.2 Defence infrastructure is well-managed throughout its lifecycle	% of real property that is rated as being in fair or better condition	80% or greater	31 March 2020	64%**	66%	86.22%
	% of maintenance and repair investment in relation to the infrastructure portfolio value	1.4%*	31 March 2020	1.01%***	1.05%	1.1%**
	% of the total real property value that is identified as surplus	1% or less	31 March 2020	2.59%****	0.82%	0.60%**

Notes:

* This value reflects an industry benchmark for best practices in sustainment of infrastructure portfolios.

** DND real property portfolio has a large number of buildings and systems that are coming to the end of their life expectancy. This aging infrastructure is increasing the need for maintenance, repairs and recapitalization of buildings in the portfolio.

*** The target was not met because the maintenance and repair investment was insufficient relative to the overall size of infrastructure portfolio. Furthermore, since aging infrastructure tends to require increased maintenance and repair investment, DND would need to spend closer to the 1.4% target in order to maintain the portfolio in better overall condition.

**** No properties were divested in FY 2019-20 due to a lack of resources.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase^{cciv}](#).

Departmental Result 6.3 – Defence activities are carried out in a safe and environmentally responsible manner

- FY 2019-20 brought a successful end to the existing Defence Energy and Environment Strategy (DEES) while we worked on its successor: the 2020-23 DEES. As of FY 2019-20, DND is on track to meet DEES commitments to reduce greenhouse gas (GHG) emissions by 40% of the 2005 baseline. Liabilities related to contaminated sites were reduced by 16.5%, and a total of 33% of our light-duty commercial vehicle fleet are either hybrid or electric vehicles.

The complete DEES results can be found in the Defence Results Report [Supplementary Information Tables^{ccv}](#).

- DND sought opportunities to purchase clean power and alternative energy options for military bases and wings. DND worked with energy suppliers to develop 100% clean electricity options to power defence facilities through green power purchase agreements.
- DND continued to build and renovate to meet high-performing building standards, such as the Leadership in Energy and Environmental Design Silver standard or equivalent. Since 2017, 100% of major upgrades and new defence buildings were built to the latest standards for excellence in green building design, construction and maintenance.
- The [Energy Efficiency Project at 3 Wing Bagotville^{ccvi}](#) was announced. This project will see 60 buildings upgraded with energy efficiency measures to provide our military personnel with sustainable and efficient facilities in which to work and train. These upgrades will lower annual energy costs by about 19% and reduce greenhouse gas emissions by over 2 500 tonnes per year, the equivalent of taking more than 500 cars off the road.

Defence Energy and Environment Strategy



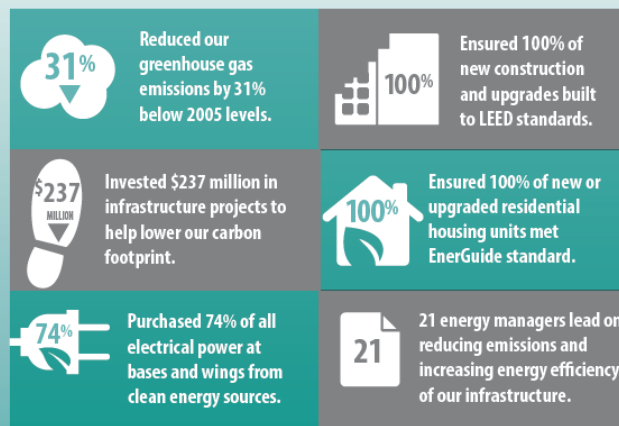
Applying a life-cycle approach to military equipment procurement – DND/CAF remained focused on the early integration of design specifications when purchasing equipment, taking into account energy performance and environmental considerations.

For more information, refer to the [Greening Defence](#)^{ccvii} webpage.

GREEN AT DEFENCE

THE DEFENCE ENERGY AND ENVIRONMENT STRATEGY

2019-2020 Achievements



Results achieved

Departmental Results	Departmental Result Indicators	Target	Date to achieve target	2019–20 Actual results	2018–19 Actual results	2017–18 Actual results
6.3 Defence activities are carried out in a safe and environmentally responsible manner	% of Defence Energy and Environment Strategy commitments that are met or exceeded	80% or greater	31 March 2020	82%	67%	72%
	% of greenhouse gas emissions reduction relative to a 2005 baseline	40% or greater	31 March 2030	31.3%*	32%	31%
	% of light-duty vehicle fleet that is hybrid, plug-in hybrid and/or electric	30%	31 March 2020	33%	27%	19%
	% of reduction in contaminated sites liability based on the closing liability of the previous year	Average 7%/year	31 March 2020	16.5%	19.8%	19.4%

Notes:

* DND/CAF has identified a long term target of at least 40% and aims to achieve this objective by 2030. As of FY 2019-20 we have lowered our greenhouse gas emissions by 31.3% from 2005 levels (excluding military fleets) and we are on track to meet our target to reduce our emissions by 40% by 2030.

For more information about the Department of National Defence and the Canadian Armed Forces' performance indicators, please visit [GC InfoBase^{ccviii}](#).

Budgetary financial resources (dollars)

2019–20 Main Estimates	2019–20 Planned spending	2019–20 Total authorities available for use	2019–20 Actual spending (authorities used)	2019–20 Difference (Actual spending minus Planned spending)
3,117,775,342	3,150,877,104	3,382,926,407	3,651,639,001	500,761,897

Human resources (full-time equivalents)

2019–20 Planned full-time equivalents	2019–20 Actual full-time equivalents	2019–20 Difference (Actual full-time equivalents minus Planned full-time equivalents)
13,363	15,974	2,611

Financial, human resources and performance information for the Department of National Defence and the Canadian Armed Forces' Program Inventory, including explanation of significant variances, is available in the [GC InfoBase^{ccix}](#).

Internal Services

Description

Internal Services are those groups of related activities and resources that the federal government considers to be services in support of programs and/or required to meet corporate obligations of an organization. Internal Services refers to the activities and resources of the 10 distinct service categories that support Program delivery in the organization, regardless of the Internal Services delivery model in a department. The 10 service categories are:

- Acquisition Management Services;
- Communications Services;
- Financial Management Services;
- Human Resources Management Services;
- Information Management Services;
- Information Technology Services;
- Legal Services;
- Materiel Management Services;
- Management and Oversight Services; and
- Real Property Management Services.

Results

Financial management and planning

The Department of National Defence (DND) and the Canadian Armed Forces (CAF) financial management and planning functions are key factors enabling the institution to implement *Strong, Secure, Engaged* (SSE). DND/CAF ensure the effective oversight and accountability for SSE, and continue to build and maintain a high-performing financial management function as a steward to the finance community for recruitment, talent management and retention to meet SSE ambitions.

DND/CAF's advancement of analytics and leverage of digital technologies continued as part of the government-wide digital transformation initiative. Information management and technology modernization has been employed throughout the department, including through the transformation of our business processes and tools. DND/CAF continued to modernize the business of defence while maintaining a commitment to effective and efficient governance and functional oversight over financial management activities, including costing in the department by way of compliance with Treasury Board's [Guide to Cost Estimating](#)^{ccx} published on 10 June 2019.

The implementation of the Financial Planning and Forecasting tool began in FY 2019-20 as a means to increase process efficiency and improve analysis and decision-making. This tool provides DND/CAF with an enhanced ability to provide timely, accurate and tailored financial planning and forecasting data to support strong analyses and recommendations.

Civilian human resources management

Effective civilian Human Resources (HR) management remains critical to the successful implementation of SSE. In FY 2019-20, our attention focused on optimizing the civilian HR business model.

Processes have been streamlined to enable smarter and faster human resources focusing on people, processes and technology. We continued to implement a series of flexible, innovative and outcome-driven business transformation initiatives to enable a hyper-personalized approach for clients, and to ensure consistent and strategic HR capabilities. We have seen improvement in the efficiency and effectiveness of our compensation, labour relations, staffing and classification functions through effective HR planning, prioritizing requests and increasing our capacity.

During FY 2019-20, we recorded significant improvements in compensation. We continue to ensure that employees are paid accurately and on time. Compensation team capacity has been increased from 158 to 320 Full-Time Equivalents (FTE) to better respond to employee compensation issues, and to be proactive in avoiding potential issues before they occur by supporting military and civilian managers in pay administration. DND compensation has expanded its full-service approach by increasing one-on-one consultations with compensation advisors, expanding client care by contacting employees directly, and increasing in-person services on bases and wings. As of 31 March 2020, the department's backlog had been reduced from 77 539 to 35 558 active cases, a reduction of 41 951 outstanding cases (54%). In addition, we have seen a reduction of 7 379 employees impacted by Phoenix (28%). The sustained reduction of backlog and business process improvements are the direct result of our investment in compensation services, and our strong collaboration with the Public Services and Procurement Canada.

We have increased our capacity to measure performance and provide civilian workforce business intelligence and analytics to senior decision makers. Dashboards on a variety of topics, including compensation, staffing and Public Service Employee Survey results, are provided to the department's most senior management on a consistent basis, allowing them to make informed evidence-based decisions.

Investments continued in digital HR capabilities, including the [HR GO app](#)^{ccxi}. Information regarding civilian HR programs, services and initiatives, like mental health support, recruitment at DND, and the Military Spouse Employment Initiative, are added weekly and users can access tools like pay calculators, standardized work descriptions and leave type lookups. The HR GO app, designed with input from our Defence Team members, puts civilian HR information and tools at users' fingertips and is the first of its kind in the federal government. In the first nine months since its release, the HR GO app has almost 10 000 downloads across all mobile platforms with daily utilization between 1 000 - 3 000 views.

The HR Connect Resources Virtual Client Contact Center was implemented as a complementary service delivery channel for accessing HR programs and services. Available online and through a toll-free number, it has received and answered 15 821 employee and manager queries on various HR subject matters, including compensation, staffing, classification and labour relations.

Increased focus on executive talent sourcing over FY 2019-20 has included the innovative use of LinkedIn Recruiter to source talent, attract passive applicants and has helped develop recruitment strategies. Active advertising and promotion of job opportunities through various social media forums took place to ensure diverse talent was reached, such as the launch of a LinkedIn Community Life Page which aimed at promoting the leadership culture and diversity, branding as well job opportunities.

The department's Student Civilian Hiring Program continued to leverage all available federal student hiring programs to employ students across the country in diverse fields. For three consecutive years, DND has met or exceeded its target to hire 1 200 students. Specifically in FY 2019-20, the department:

- Attended and organized student recruitment events across the country;
- Created pools of qualified student candidates, enabling quick and easy matches of students to available jobs; and
- Promulgated student employment and learning. To this effect, 322 Students were bridged in public service jobs following their student employment.

Gender, diversity and inclusion

In February 2020, the Directorate for Gender Equality, Diversity and Inclusion in DND and the Directorate for Integration of Gender Perspectives in the CAF received approval to merge into one organization in order to optimize coordinated and consistent efforts to influence policies, directives, programs and operations to advance gender equality, increase diversity and inclusion, and promote and protect human rights. The new Directorate will consist of Gender Equality and Diversity specialists and analysts and has 14 full-time equivalents. This team will report directly to the Chief of the Defence Staff and the Deputy Minister through the Corporate Secretary and the Director of Staff of the Strategic Joint Staff.

The Defence Team continued its systems-wide institutional approach to integrating [Gender-based Analysis Plus](#)^{ccxii} (GBA+) requirements and accountabilities into processes and systems, and to provide technical expert support for conducting intersectional gender-based analyses. Progress was also made towards improving the collection and use of anthropometric data for women and men to inform the procurement of Integrated Soldier Systems project and platforms.

In FY 2019-20, DND continued to raise awareness and build capacity to conduct GBA+. Specifically:

- The Defence Team had an internal network of approximately 100 GBA+ Focal Points and Gender Focal Points, as well as five full-time gender advisors within the CAF;
- Training was provided to Defence Team members through the delivery of clinics, workshops, and orientation sessions;
- A GBA+ Data Resource Tool to support DND/CAF capacity to conduct GBA+ was also developed and disseminated; and
- The CAF continued to work with international partners such as the Nordic Centre for Gender in Military Operations and the European Security and Defence College to facilitate opportunities for CAF members to attend courses focused on building knowledge and skills to operationalize gender perspectives.

DND/CAF created a Champion for the Modernization of Sex and Gender Information Practices, who is a member of the interdepartmental network of such Champions, focused on raising awareness and supporting the implementation of the April 2019 Government of Canada Policy Direction on the Modernization of Sex and Gender Information Practices. DND/CAF also established an internal working group to develop implementation plans and, along with Veterans Affairs Canada, engaged in a Treasury Board Secretariat-led Design Jam on “Working in the Military” to brainstorm on how to align with the policy direction.

Communicating with Canadians

The department communicates with Canadians about the work that the Defence Team is doing to protect Canada, defend North America, in partnership with the United States, and contribute to a more peaceful and stable world. We use digital media and platforms as the primary means to tell the National Defence story and to connect and interact with Canadians, while continuing to use multiple communications channels to meet their diverse information needs.

In FY 2019-20, the following activities reflected some of our multi-faceted efforts to inform and engage with Canadians about CAF operations and exercises (such as Operations PRESENCE, GLOBE, LENTUS, and LASER), as well as DND policies and programs:

- Strategic communications advice and support to Ministerial announcements and events, the development of narratives to promote operational success and capability, and active social media engagement;
- More than 600 stakeholder engagement activities, with almost 18 000 participants, contributed to building better understanding within targeted audiences about Defence priorities, issues and challenges;
- The Media Relations Office managed 2 218 media requests – responding to 96% within deadlines – and issued 210 media products to report progress on CAF operations and Defence initiatives;

- The National Veterans' Week Speakers Program received an unprecedented 3 108 requests for CAF speakers. CAF members volunteered to give 2 506 presentations at schools and community organizations, reaching more than 741 400 Canadians;
- To increase recruitment and strengthen the CAF, our recruitment marketing campaigns were focused on promoting the unique full and part-time career opportunities offered by the CAF, along with addressing priority/threshold occupations and the Reserve Force; and
- We continued to improve the National Security and Defence theme on the Government of Canada's website, Canada.ca^{ccxiii}, so that users can easily access information about CAF missions and Defence policies and programs. Relevant content was also posted to CAF and DND social media platforms.

National Defence Headquarters move to Carling Campus

In early 2017, Defence Team members from the National Capital Region (NCR) began moving into a newly renovated, state-of-the art workplace in Ottawa's west end called National Defence Headquarters or NDHQ (Carling). In FY 2019-20 we took delivery of five buildings, and completed all Information Technology fit-up and furniture installation for office spaces, collaborative work areas and special purpose spaces. We completed the moves for all organizations intended to work in these workspaces. Exterior landscaping was initiated, installation of interior security systems and wide area Wi-Fi occurred, as well as the commissioning of the guardhouses.

Work will continue into FY 2020-21 with planned delivery of the Auditorium in the Pavilion and the planned close-out of the Carling Campus Project.

Information Management

The refreshed [Defence Information Management Plan](#)^{ccxiv} was approved, and derivative objectives such as the development and implementation of standardized performance measures for the program (Information Management [IM] Health Check) was achieved. Pursuant to the new Treasury Board Secretariat *Policy on Service and Digital*, a refresh of the entire IM policy suite was initiated. GCDocs implementation remains on hold across the department, and DND/CAF continues to liaise with stakeholders to improve technological enablement of information management across DND/CAF.

Information Technology

DND's Enterprise Resource Management tools were modernized to support the department's transformation to evidence-based decision-making. DND's Enterprise Resource Management tools are used to capture its business information related to finance, human resources materiel management, etc. to inform decision-making and reporting. Substantial efforts and resources have been directed towards modernizing and adding tools to enable business forecasting. Highlights from FY 2019-20 include:

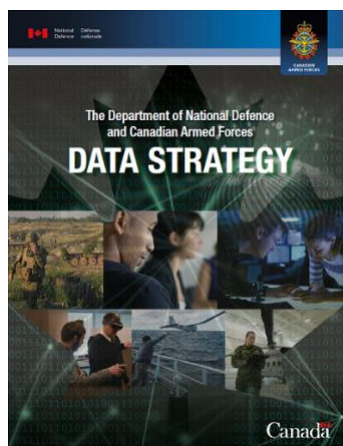
- In support of improving the information and data to better enable data analytics in the department, progress has been made on the following:
 - Materiel Identification to improve master materiel data and to implement a master data governance management capability;
 - Modernization and Integration of Sustainment and Logistics to modernize the Defence Supply Chain, more specifically, by enhancing and integrating warehouse and distribution capability; and
 - Financial Planning and Forecasting to implement department-wide processes and enabling tools for in-year financial forecasting and out-year financial and business planning.
- The Defence Resource Management Information System Modernization project was initiated. and a series of workshops with the key departmental stakeholders as well as strategic studies were conducted in support of the project initiation;

- The Fixed-Wing Search and Rescue as well as the Electronic Information Exchange projects progressed;
- Worked with the Government of Canada Financial and Material Management solution to ensure convergence on the enterprise resource planning software and alignment to the common financial business processes;
- Assumed chairmanship of the Defence Interest Group, an organization assembling defence organizations from 19 countries with SAP to define and prioritize the military Defence and Security module for the next Enterprise Resource Planning system; and
- Improvements were made to Enterprise Business Intelligence and Analytics services. Implemented the supply chain business analytics within the materiel groups supply chain business analytics capability.

Defence Data, Innovation and Analytics

DND continued to align its priorities to enable data and analytics throughout the department and contribute to the implementation of the defence policy. The following are DND's key highlights for FY 2019-20:

- Launched the [Defence Data Strategy](#)^{CCXV} in fall of 2019. The strategy was published with a vision of leveraging data in all aspects of defence programs in order to enhance defence capabilities and decision-making, and provide an information advantage during military operations;
- Published a Deputy Minister and Chief of the Defence Staff Joint Directive on Data Management informed by key documents such as SSE, and the Government of Canada's *Policy on Service and Digital* and *Directive on Service and Digital*;
- Defined a framework that outlines principles, structures, roles and responsibilities for governing enterprise data assets. This framework constitutes a first step towards instituting master data management practices;
- Completed Phase 1 of DND/CAF's Analytics Roadmap and Operating Model. Phase 1 was a detailed assessment of gaps in data capabilities and enterprise analytics. Phase 2 commenced in February 2020 and will articulate a vision and guiding principles for analytics in DND/CAF, and the basis for an operating model for the future;
- Established Analytics Support Centres in most of the organizations within the department. Regular support was provided, specifically with onboarding, training, policy and solution enablement; and
- Enhanced education and training to enable analytics and sound data practices. Specifically, the department:
 - Completed a Needs Assessment for training and education;
 - Launched the *Online Guide for Business Intelligence Reports for Consumers*;
 - Created a data and analytics electronic-library;
 - Provided training and educational courses/events including the Royal Military College Analytics workshops;
 - Provided Web Intelligence author training;
 - Supported the Canada School of Public Service/Digital Academy in the drafting of the Government of Canada Data Competency Framework; and
 - Coordinated DND members on their Digital Premium Practicum and developmental efforts towards creating a Discover Data workshop.



Departmental Litigation Oversight

The ongoing management of several class actions across DND/CAF has highlighted the need for the department to consider the implementation of a structured, persistent and deliberate approach to the management of the entire lifecycle of litigation for complex, multi-organizational litigation cases. In order to align broad efforts through a single point of oversight, it was decided in November 2019 that a new secretariat-type program oversight function would be created to manage and coordinate activities related to complex litigation. The Departmental Litigation Oversight (DLO) capability is accountable for enabling strategic management, coordination and provision of non-legal advice, enabling the department to meet the legal and moral obligations related to settlement agreements and appropriately manage associated risks to ensure compliance. The DLO is accountable to the Deputy Minister, reporting through the Associate Deputy Minister and is supported by a complex litigation program oversight (policy and analytics) team, client preparedness, claims verification, administration and communications capabilities.

Key Corporate Risk(s)

One DND/CAF key corporate risk can be associated with Internal Services. There is a risk that the unavailability of accurate, reliable data, information management and knowledge transfer arrangements will impede DND/CAF evidence-based decision-making and policy making. This risk is prevented and mitigated by many of the controls articulated as activities of the Internal Services as listed above.

Budgetary financial resources (dollars)

2019–20 Main Estimates	2019–20 Planned spending	2019–20 Total authorities available for use	2019–20 Actual spending (authorities used)	2019–20 Difference (Actual spending minus Planned spending)
594,671,734	601,588,020	812,967,145	845,405,323	243,817,303

Human resources (full-time equivalents)

2019–20 Planned full-time equivalents	2019–20 Actual full-time equivalents	2019–20 Difference (Actual full-time equivalents minus Planned full-time equivalents)
4,039	4,070	31

Financial, human resources and performance information for the Department of National Defence and the Canadian Armed Forces' Program Inventory, including explanation of significant variances, is available in the [GC InfoBase](#)^{ccxvi}.

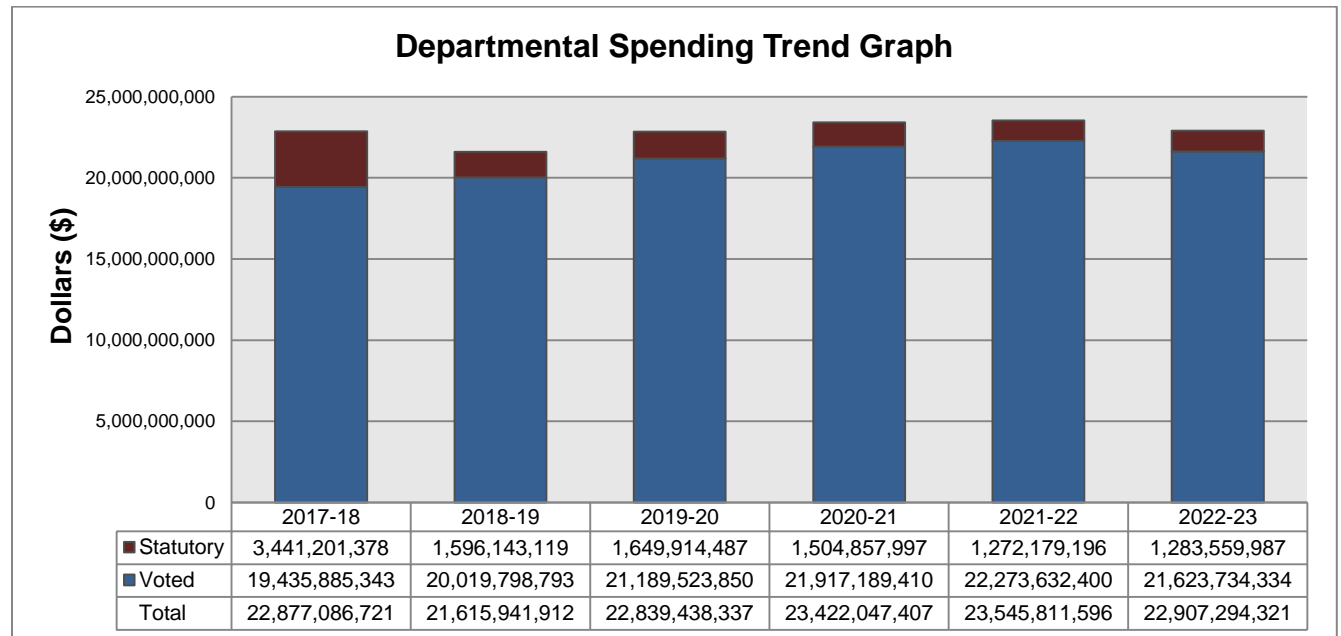
Analysis of trends in spending and human resources

Actual expenditures

Departmental spending 2017-18 to 2022-23

Departmental spending trend graph

The following graph presents planned (voted and statutory spending) over time.



Budgetary performance summary for Core Responsibilities and Internal Services (dollars)

Budgetary performance summary for Core Responsibilities and Internal Services (dollars)

Core Responsibilities and Internal Services	2019-20 Main Estimates	2019-20 Planned spending	2020-21 Planned spending	2021-22 Planned spending	2019-20 Total authorities available for use	2017-18 Actual spending (authorities used)	2018-19 Actual spending (authorities used)	2019-20 Actual Spending (authorities used)
Operations	1,020,478,595	1,032,239,527	1,080,817,402	1,084,690,693	1,372,914,038	1,372,428,482	1,424,919,741	1,044,514,772
Ready Forces	9,558,448,134	9,672,587,363	9,760,714,328	9,789,287,544	10,027,665,272	10,331,831,988	9,506,982,585	9,875,229,209
Defence Team	3,282,108,597	3,330,329,750	3,444,253,339	3,442,743,021	3,442,200,546	3,424,068,331	2,779,583,406	3,365,827,143
Future Force Design	932,743,071	941,793,597	845,220,905	857,200,067	936,937,509	894,647,455	845,573,026	758,767,329
Procurement of Capabilities	3,132,405,450	3,135,440,658	3,910,791,611	4,149,996,557	3,724,452,818	2,992,354,792	3,069,157,738	3,298,055,560
Sustainable Bases, Information Technology Systems and Infrastructure	3,117,775,342	3,150,877,104	3,680,697,534	3,515,136,435	3,382,926,407	3,237,004,066	3,219,172,782	3,651,639,001
Budget Implementation vote – unallocated authorities	254,530,596	N/A	N/A	N/A	76,891,277	N/A	N/A	N/A
Subtotal	21,298,489,785	21,263,267,999	22,722,495,119	22,839,054,317	22,963,987,867	22,252,335,114	20,845,389,278	21,994,033,014
Internal Services	594,671,734	601,588,020	699,552,288	706,757,279	812,967,145	624,751,607	770,552,634	845,405,323
Total	21,893,161,519	21,864,856,019	23,422,047,407	23,545,811,596	23,776,955,012	22,877,086,721	21,615,941,912	22,839,438,337

Sources: Vice-Chief of the Defence Staff Group / Assistant Deputy Minister (Finance) / Chief Financial Officer Group (CFO).

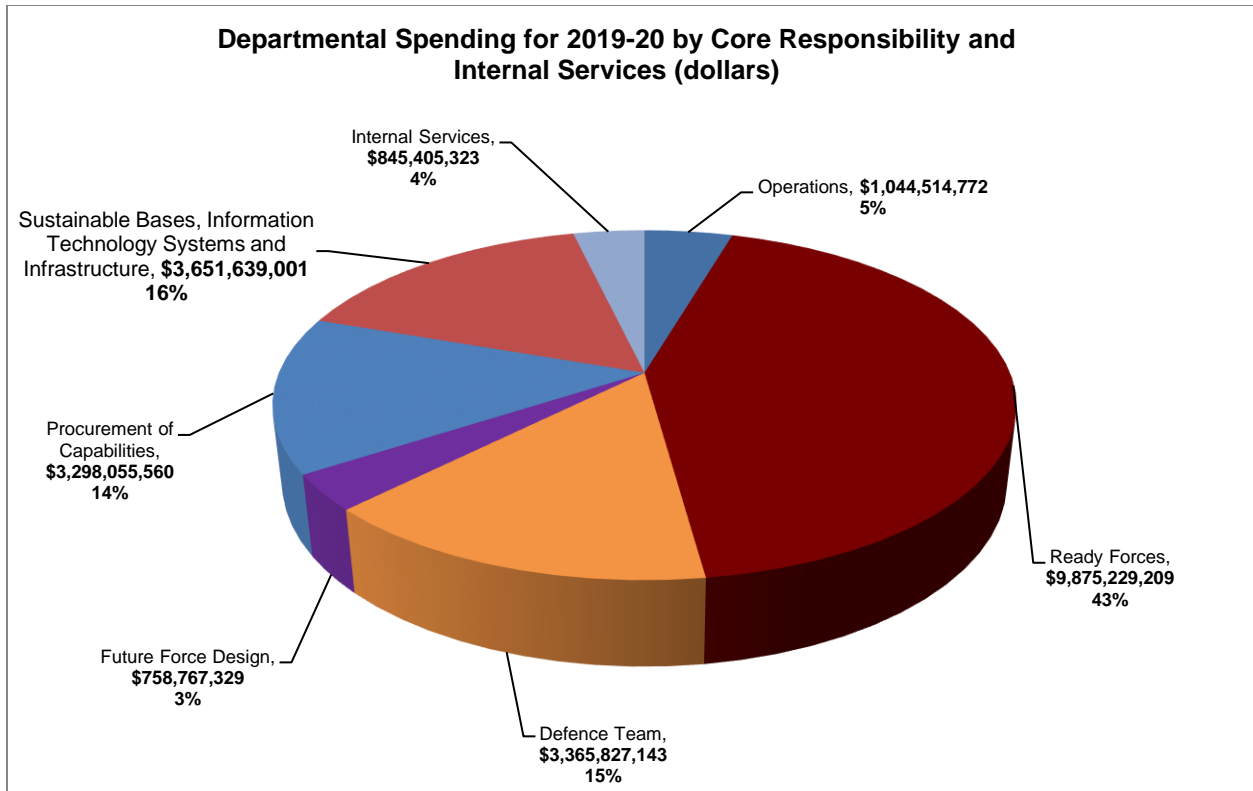
Notes:

Due to rounding, figures may not add up to totals shown.

Where the actual spending amount is higher than the total authorities, this does not represent an over-expenditure of Parliamentary authorities. Parliamentary authorities are allocated by vote and not by Core Responsibility and Program.

Significant variances in financial resources are detailed at the Core Responsibility and Program level in the "Supporting information on the Program Inventory" section of the document. Explanations are provided when the variance is at least 100 Million or when the difference between the actual and the planned amount is 100%.

"Budget Implementation - Unallocated authorities" row has been added to the above table as there are unallocated budget implementation vote authorities that are not otherwise reported under a Core Responsibility for 2019-20 Main Estimates and 2019-20 Total Authorities Available for Use.



Actual human resources

The Regular Force has seen an increase in strength and is now approximately 500 personnel below the authorized strength of 68 000. Recruitment and retention efforts have ensured that we remain on track to re-establish the Regular Force to its establishment strength by 2020. Under *Strong, Secure, Engaged*: Canada's Defence Policy (SSE), the Regular Force authorized strength will grow from its current 68 000 to 71 500. This growth will occur over a period of six years starting in FY 2019-20. That carefully balanced rate of increase will continue to fully utilize the Canadian Armed Forces (CAF) current training capacity. The Institutional timetable will be closely monitored, with quick implementation of mitigating actions to ensure growth to the new authorized strength.

The department's civilian population increased to 25 499 full-time equivalents (FTE)'s, up from 24 564 from the previous FY 2018-19 and below the 25 592 civilian planned FTE's for FY 2019-20. This increased capacity helps ensure that we have the right people, in the right place, at the right time while respecting human resources and budget allocations. The department is in a state of growth and is focused on aligning civilian resources to fulfill renewed departmental priorities such as addressing compensation issues and supporting SSE.

Human resources summary for Core Responsibilities and Internal Services (full-time equivalents)

Core Responsibilities and Internal Services	2017-18 Actual full-time equivalents	2018-19 Actual full-time equivalents	2019-20 Planned full-time equivalents	2019-20 Actual full-time equivalents	2020-21 Planned full-time equivalents	2021-22 Planned full-time equivalents
Operations	N/A	4,884	4,923	2,647	4,923	4,923
Ready Forces	N/A	45,566	46,016	45,797	46,116	46,136
Defence Team	N/A	20,123	20,243	20,407	20,243	20,243
Future Force Design	N/A	2,421	2,669	1,930	2,675	2,675
Procurement of Capabilities	N/A	2,420	2,339	2,427	2,339	2,339
Sustainable Bases, Information Technology Systems and Infrastructure	N/A	13,209	13,363	15,974	13,418	13,418
Subtotal	N/A	88,623	89,553	89,182	89,714	89,734
Internal Services	N/A	3,347	4,039	4,070	4,039	4,039
Total	N/A	91,970	93,592	93,252	93,753	93,773

The actual numbers for FY 2017-18 cannot be reported as the reporting mechanism changed from the Program Alignment Architecture to the Departmental Results Framework in FY 2018-19.

Human resources – Reserve Force personnel

The Reserve Force is a unique and valued component of the CAF. It is divided into four distinct sub-components:

- Primary Reserve;
- Cadet Organization Administration and Training Service;
- Canadian Rangers; and
- Supplementary Reserve (Strategic reserve).

The Primary Reserve consists predominately of part-time professional CAF members, located throughout Canada, ready with reasonable notice to conduct or contribute to domestic and international operations to safeguard the defence and security of Canada. Important initiatives to reduce attrition and to streamline recruitment resulted in the substantial growth of the Primary Reserve in FY 2019-20. These sustained efforts will support the Primary Reserve in reaching the Government of Canada's (SSE Initiative 74) authorized Average Paid Strength level of 30 000 by 2026.

The Cadet Organization Administration and Training Service completed an organizational restructure and will be maintained at the current approved target of 8 000 personnel.

During FY 2019-20, the Canadian Rangers added 14 new Patrols for a new total of 196; concurrently, their total strength grew from 5 485 to 5 525. Additionally, a chaplain support plan was instituted in order to provide wellness services to the Canadian Rangers. The Canadian Rangers are integral to Northern surveillance and regularly provide support to ground search and rescue. They are Canada's eyes and ears across the country, particularly in the sparsely settled northern, coastal and isolated areas of Canada. In response to the Minister's mandate letter, the CAF will continue to focus on surveillance and control of the Canadian territory. This will include continuous review of the force structure of the Canadian Rangers as well as other capability enhancements to enhance and expand their training and effectiveness in order to improve their functional capabilities within the CAF.

The following table summarizes the Department of National Defence and the Canadian Armed Forces' total planned and actual human resources for Reserve Force Personnel for FY 2019-20.

	Planned 2019-20	Actual 2019-20	Difference (actual minus planned)
Primary Reserve	28,650	24,442	(4,208)
Cadet Organization Administration and Training Service	8,000	7,181	(846)
Canadian Rangers	5,520	5,213	(307)

Average Paid Strength (APS) is used to report the strength of the Primary Reserve in the Departmental Results Report as per the guidance and Methodology for counting the Primary Reserve, dated 6 March 2017 - directing that APS will continue to be used to report to Government, while other metrics are used internally to CAF. To enhance accuracy in reporting Primary Reserve strength and capabilities, a harmonized methodology is deemed necessary. To do so, a One-CAF establishment model will set the appropriate framework required to increase efficiency and effectiveness in measuring the Primary Reserve output (Trained Effective Strength) in support of Canada's Defence Policy (SSE).

Expenditures by vote

For information on the Department of National Defence and the Canadian Armed Forces' organizational voted and statutory expenditures, consult the [Public Accounts of Canada 2019–2020](#)^{ccxvii}.

Government of Canada spending and activities

Information on the alignment of the Department of National Defence and the Canadian Armed Forces' spending with the Government of Canada's spending and activities is available in [GC InfoBase](#)^{ccxviii}.

Financial statements and financial statements highlights

Financial statements

The Department of National Defence and the Canadian Armed Forces' financial statements (unaudited) for the year ended 31 March 2020 are available on the [Department of National Defence and the Canadian Armed Forces' website](#)^{ccxix}.

Financial statements highlights

Condensed Statement of Operations (unaudited) for the year ended 31 March 2020 (dollars)

Financial information	2019–20 Planned results	2019–20 Actual results	2018–19 Actual results (Restated)	Difference (2019–20 Actual results minus 2019–20 Planned results)	Difference (2019–20 Actual results minus 2018–19 Actual results)
Total expenses	21,843,499,008	22,840,167,777	23,242,395,784	996,668,769	(402,228,007)
Total revenues	456,115,667	428,140,728	410,375,152	(27,974,939)	17,765,576
Net cost of operations before government funding and transfers	21,387,383,341	22,412,027,049	22,832,020,632	1,024,643,708	(419,993,583)

Further details of FY 2019-20 Planned results and associated notes are available in the [Future-oriented Statement of Operations \(Unaudited\)](#) from the [2019–20 Departmental Plan](#)^{ccxx}.

The Statement of Operations and Departmental net financial position provides the net cost of the department's operations for the year ended 31 March 2020.

Overall, from FY 2018-19 to 2019-20, the department's net cost of operations before government funding and transfers decreased by \$420 million (2%). The reduction in actual expenses in 2019-20 compared to 2018-19 actual expenses is mainly attributable to an increase in the capitalized spending on maturing projects related to [Strong, Secure, Engaged: Canada's Defence Policy](#)^{ccxxi} (SSE).

Furthermore, the increase of \$1,025 million between the Planned results and the Actual results is largely due to an increase in salary and employee benefits linked to the signing of the collective agreements and increases in the rates of various types of compensation as well as unplanned increases in expenses related to contingent liabilities.

The financial information reported in the budgetary table and the condensed statement of operations differ due to their respective accounting methodologies.

Condensed Statement of Financial Position (unaudited) as of 31 March 2020 (dollars)

Financial information	2019–20	2018–19	Difference (2019–20 minus 2018–19)
Total net liabilities	6,219,657,743	5,898,554,592	321,103,151
Total net financial assets	3,263,732,743	3,190,606,955	73,125,788
Departmental net debt	2,955,925,000	2,707,947,637	247,977,363
Total non-financial assets	41,504,279,884	40,014,600,676	1,489,679,208
Departmental net financial position	38,548,354,884	37,306,653,039	1,241,701,845

The Statement of Financial Position provides the balances of the department's assets, liabilities and net financial position as at 31 March 2020.

Overall, from FY 2018-19 to 2019-20, the Departmental net financial position increased by \$1,242 million (3%). This is mainly due to increased investments in capital projects supporting SSE compared to the previous year.

Additional information

Corporate information

Organizational profile

Appropriate minister: The Honourable Harjit S. Sajjan, PC, OMM, MSM, CD, MP

Associate minister: The Honourable Lawrence MacAulay, PC, MP

Institutional head: Jody Thomas, Deputy Minister

Chief of the Defence Staff: General Jonathan Vance, CMM, MSC CD

Ministerial portfolio:

- Department of National Defence
- Canadian Armed Forces
- [National Defence and Canadian Forces Ombudsman](#)^{ccxxii}
- [Independent Review Panel for Defence Acquisition](#)^{ccxxiii}
- [Office of the Chief Military Judge](#)^{ccxxiv}
- [Defence Research and Development Canada](#)^{ccxxv}
- [Communications Security Establishment](#)^{ccxxvi}
- [Military Police Complaints Commission of Canada](#)^{ccxxvii}
- [Military Grievances External Review Committee](#)^{ccxxviii}
- [Office of the Communications Security Establishment Commissioner](#)^{ccxxix}

Enabling instruments:

- [National Defence Act](#)^{ccxxx}
- [Emergencies Act](#)^{ccxxxi}
- [Aeronautics Act](#)^{ccxxxii}
- [Fisheries Act](#)^{ccxxxiii}

For further information, see [Legislation and National Defence](#)^{ccxxxiv}.

Year of incorporation / commencement: 1923

For additional corporate information visit [the Department of National Defence and the Canadian Armed Forces' website](#)^{ccxxxv}.

Raison d'être, mandate and role: who we are and what we do

“Raison d'être, mandate and role: who we are and what we do” is available on the [Department of National Defence and the Canadian Armed Forces' website](#)^{ccxxxvi}.

Reporting framework

The Department of National Defence and the Canadian Armed Forces' Departmental Results Framework and Program Inventory of record for FY 2019-20 are shown below.

Core Responsibility	Operations				
Description	<p>Detect, deter and defend against threats to or attacks on Canada. Assist civil authorities and law enforcement, including counter-terrorism, in support of national security, domestic disasters or major emergencies, and conduct search and rescue operations.</p> <p>Detect, deter and defend against threats to or attacks on North America in partnership with the United States, including through NORAD.</p> <p>Lead and/or contribute forces to NATO and coalition efforts to deter and defeat adversaries, including terrorists, to support global stability. Lead and/or contribute to international peace operations and stabilization missions with the United Nations, NATO and other multilateral partners. Engage in capacity building to support the security of other nations and their ability to contribute to security and the security of Canadians abroad. Assist civil authorities and non-governmental partners in responding to international and domestic disasters or major emergencies.</p>				
Results and Indicators	<p>Canadians are protected against threats to and attacks on Canada</p> <ul style="list-style-type: none">• % of requests for assistance that are fulfilled• % of force elements that are employed within established timelines• % of operations that meet stated objectives• Extent to which the Canadian Armed Forces is effective in domestic operations	<p>People in distress receive effective search and rescue response</p> <ul style="list-style-type: none">• % of Canadian Armed Forces aeronautical search and rescue operations that meet established standards• % of coordinated maritime, aeronautical and joint response to search and rescue incidents deemed effective• % of requests for Canadian Armed Forces aeronautical search and rescue assistance that are fulfilled	<p>Canada's Arctic sovereignty is preserved and safeguarded</p> <ul style="list-style-type: none">• % of Arctic operations and exercises that meet stated objectives	<p>North America is defended against threats and attacks</p> <ul style="list-style-type: none">• % of continental operations that meet stated objectives• % of Canada's commitments and obligations to the North American Aerospace Defence Command agreement that are met• Extent to which the Canadian Armed Forces is effective in continental operations	<p>Canadian Armed Forces contribute to a more stable and peaceful world</p> <ul style="list-style-type: none">• % of international operations that meet stated objectives• Extent to which the Canadian Armed Forces is effective in international operations
Program Inventory	<ul style="list-style-type: none">• Operations in Canada• Operations in North America• International Operations• Global Engagement• Cyber Operations• Command, Control and Sustainment of Operations• Special Operations				

Core Responsibility	Ready Forces	
Description	Field combat ready forces able to succeed in an unpredictable and complex security environment in the conduct of concurrent operations associated with all mandated missions.	
Results and Indicators	Canadian Armed Forces are ready to conduct concurrent operations <ul style="list-style-type: none"> • % of operations that are capable of being conducted concurrently • % of force elements that are ready for operations in accordance with established targets 	Military equipment is ready for training and operations <ul style="list-style-type: none"> • % of maritime key fleets that are serviceable to meet training and readiness requirements • % of land fleets that are serviceable to meet training and readiness requirements • % of aerospace fleets that are serviceable to meet training and readiness requirements
Program Inventory	<ul style="list-style-type: none"> • Strategic Command and Control • Ready Naval Forces • Ready Land Forces • Ready Air and Space Forces • Ready Special Operations Forces • Ready Cyber Forces • Ready Intelligence Forces • Ready Joint and Combined Forces • Ready Health, Military Police and Support Forces • Equipment Support • Canadian Forces Liaison Council and Employer Support 	

Core Responsibility	Defence Team				
Description	Recruit, develop and support an agile and diverse Defence Team, within a healthy workplace free from harmful behaviour; support military families; and meet the needs of all retiring military personnel, including the ill and injured. Strengthen Canadian communities by investing in youth.				
Results and Indicators	<p>Canadian Armed Forces is growing towards its end state of 101,500 personnel</p> <ul style="list-style-type: none"> • % of Regular force positions that are filled • % of Reserve force positions that are filled • % of occupations with critical shortfalls 	<p>The health and well-being of the Defence team is well supported</p> <ul style="list-style-type: none"> • % of military personnel who are medically fit for their occupation • % of military personnel who feel that the Canadian Armed Forces provides a reasonable quality of life for themselves and their families • % of Canadian Armed Forces members who report a high level of workplace well-being • % of civilian employees who describe the workplace as psychologically healthy 	<p>The Defence team reflects the values and diversity of Canadian society</p> <ul style="list-style-type: none"> • % of the Defence team that self-identify as a woman • % of the Defence team that self-identify as a visible minority • % of the Defence team that self-identify as an indigenous person • % of the Defence team that self-identify as victims of harassment • % of the Defence team that self-identify as victims of discrimination • Annual number of reported incidents of Harmful and Inappropriate Sexual Behaviour in the Defence Team • Number and type of actions taken in response to reported Harmful and Inappropriate Sexual Behaviour incidents by the Defence Team • % of Defence Team members who have attended a town hall or training session related to Harmful and Inappropriate Sexual Behaviour (Operation HONOUR) 	<p>Military families are supported and resilient</p> <ul style="list-style-type: none"> • % of Canadian Armed Forces families that feel they meet the challenges of military life • % of Canadian Armed Forces members who are satisfied with the overall support their family receives from the Canadian Armed Forces 	<p>Youth in Canada are provided with experience and opportunities that enable a successful transition to adulthood</p> <ul style="list-style-type: none"> • % of the target Canadian youth population that participates in Cadets and Junior Canadian Rangers
Program Inventory	<ul style="list-style-type: none"> • Recruitment • Individual Training and Professional Military Education • Total Health Care • Defence Team Management • Military Transition • Military Member and Family Support • Military History and Heritage • Military Law Services/ Military Justice Superintendence • Ombudsman • Cadets and Junior Canadian Rangers (Youth Program) 				

Core Responsibility	Future Force Design	
Description	Develop and design the future force through a deep understanding of the future operating environment and security risks to Canada and Canadian interests. Enhance Defence's ability to identify, prevent, adapt and respond to a wide range of contingencies through collaborative innovation networks and advanced research.	
Results and Indicators	<p>Defence capabilities are designed to meet future threats</p> <ul style="list-style-type: none"> • Extent to which the Future Security Environment assessment remains valid • Degree to which future security assessments and capability deductions remain coherent with those of our allies and partners • Degree to which future capabilities required to ensure an operational advantage over defence and security threats have been accounted for in defence plans 	<p>Defence and security challenges are addressed through innovative solutions</p> <ul style="list-style-type: none"> • % of initiatives and projects that are supported by Defence Science and Technology • % of Innovation for Defence Excellence and Security (IDEaS) projects that resulted in useful advice, adoption, integration or eventual procurement of a new defence and security capability
Program Inventory	<ul style="list-style-type: none"> • Joint Force Development • Naval Force Development • Land Force Development • Air and Space Force Development • Special Operations Force Development • Cyber and C4I Force Development • Intelligence Force Development • Science, Technology and Innovation 	

Core Responsibility	Procurement of Capabilities			
Description	Procure advanced capabilities to maintain an advantage over potential adversaries and to keep pace with Allies, while fully leveraging defence innovation and technology. Streamlined and flexible procurement arrangements ensure Defence is equipped to conduct missions.			
Results and Indicators	<p>Defence procurement is streamlined</p> <ul style="list-style-type: none"> • % of projects that meet the approved project development and approval timelines (low risk and low complexity projects) • % of projects and services contracts that are awarded within established performance targets 	<p>Defence equipment acquisition is well-managed</p> <ul style="list-style-type: none"> • % of capital equipment projects that remain in approved scope • % of capital equipment projects that remain on approved schedule • % of capital equipment projects that remain within approved expenditure authority 	<p>Defence information technology acquisition is well-managed</p> <ul style="list-style-type: none"> • % of information technology projects that remain in approved scope • % of information technology projects that remain on approved schedule • % of information technology projects that remain within approved expenditure authority 	<p>Supplies are available and well-managed</p> <ul style="list-style-type: none"> • % of stock that is unavailable to meet forecasted demand • % of stock that is identified as surplus
Program Inventory	<ul style="list-style-type: none"> • Maritime Equipment Acquisition • Land Equipment Acquisition • Aerospace Equipment Acquisition • Defence Information Technology Systems Acquisition, Design and Delivery • Defence Materiel Management 			

Core Responsibility	Sustainable Bases, Information Technology Systems and Infrastructure		
Description	Develop and manage modern, operational and sustainable bases and infrastructure. Contribute to the achievement of federal environmental targets.		
Results and Indicators	<p>Naval, Army and Air Force Bases enable military operations and defence activities</p> <ul style="list-style-type: none"> Degree to which Bases are supporting their units in carrying out their mandated duties 	<p>Defence infrastructure is well-managed throughout its lifecycle</p> <ul style="list-style-type: none"> % of real property that is rated as being in fair or better condition % of maintenance and repair investment in relation to the infrastructure portfolio value % of the total real property value that is identified as surplus 	<p>Defence activities are carried out in a safe and environmentally responsible manner</p> <ul style="list-style-type: none"> % of Defence Energy and Environment Strategy commitments that are met or exceeded % of greenhouse gas emissions reduction relative to a 2005 baseline % of light-duty vehicle fleet that is hybrid, plug-in hybrid and/or electric % of reduction in contaminated sites liability based on the closing liability of the previous year
Program Inventory	<ul style="list-style-type: none"> Defence Infrastructure Program Management Defence Infrastructure Construction, Recapitalization and Investment Defence Infrastructure Maintenance, Support and Operations Military Family Housing Defence Information Technology Services and Programme Management Environmental Sustainability and Protection Indigenous Affairs Naval Bases Land Bases Air and Space Wings Joint, Common and International Bases Military Police Institutional Operations Safety 		

Supporting information on the Program Inventory

Financial, human resources and performance information for the Department of National Defence and the Canadian Armed Forces' Program Inventory is available in [GC InfoBase](#)^{ccxxxvii}.

Supplementary information tables

The following supplementary information tables are available on the [Department of National Defence and the Canadian Armed Forces' website](#)^{ccxxxviii}:

- [Departmental Sustainable Development Strategy](#)^{ccxxxix}
- [Details on transfer payment programs of \\$5 million or more](#)^{ccxl}
- [Gender-based Analysis Plus](#)^{ccxli}
- [Response to parliamentary committees and external audits](#)^{ccxlii}
- [Status report on transformational and major Crown projects](#)^{ccxlili}

Federal tax expenditures

The tax system can be used to achieve public policy objectives through the application of special measures such as low tax rates, exemptions, deductions, deferrals and credits. The Department of Finance Canada publishes cost estimates and projections for these measures each year in the [Report on Federal Tax Expenditures](#)^{ccxliv}. This report also provides detailed background information on tax expenditures, including descriptions, objectives, historical information and references to related federal spending programs. The tax measures presented in this report are the responsibility of the Minister of Finance.

Organizational contact information

Department of National Defence
60 Moodie Drive Ottawa, Ontario K1A 0K2 Canada
Web: <http://www.forces.gc.ca>

Appendix: definitions

appropriation (crédit)

Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures (dépenses budgétaires)

Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

capability (capacité)

The ability to carry out a military operation to create an effect.

Core Responsibility (responsabilité essentielle)

An enduring function or role performed by a department. The intentions of the department with respect to a Core Responsibility are reflected in one or more related Departmental Results that the department seeks to contribute to or influence.

Departmental Plan (plan ministériel)

A report on the plans and expected performance of an appropriated department over a three-year period. Departmental Plans are usually tabled in Parliament each spring.

departmental priority (priorité)

A plan or project that a department has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired departmental results.

Departmental Result (résultat ministériel)

A consequence or outcome that a department seeks to achieve. A Departmental Result is often outside departments' immediate control, but it should be influenced by Program-level outcomes.

Departmental Result Indicator (indicateur de résultat ministériel)

A quantitative measure of progress on a Departmental Result.

Departmental Results Framework (cadre ministériel des résultats)

A framework that connects the department's Core Responsibilities to its Departmental Results and Departmental Result Indicators.

Departmental Results Report (rapport sur les résultats ministériels)

A report on a department's actual accomplishments against the plans, priorities and expected results set out in the corresponding Departmental Plan.

experimentation (expérimentation)

The conducting of activities that seek to first explore, then test and compare the effects and impacts of policies and interventions in order to inform evidence-based decision-making, and improve outcomes for Canadians, by learning what works, for whom and in what circumstances. Experimentation is related to, but distinct from innovation (the trying of new things), because it involves a rigorous comparison of results. For example, using a new website to communicate with Canadians can be an innovation; systematically testing the new website against existing outreach tools or an old website to see which one leads to more engagement, is experimentation.

full-time equivalent (équivalent temps plein)

A measure of the extent to which an employee represents a full person-year charge against a departmental budget. For a particular position, the full-time equivalent figure is the ratio of number of hours the person actually works divided by the standard number of hours set out in the person's collective agreement.

Gender-based Analysis Plus (GBA+) (analyse comparative entre les sexes plus [ACS+])

An analytical process used to assess how diverse groups of women, men and gender-diverse people experience policies, programs and services based on multiple factors including race ethnicity, religion, age, and mental or physical disability.

government-wide priorities (priorités pangouvernementales)

For the purpose of the 2019–20 Departmental Results Report, those high-level themes outlining the government's agenda in the 2019 Speech from the Throne, namely: Fighting climate change; Strengthening the Middle Class; Walking the road of reconciliation; Keeping Canadians safe and healthy; and Positioning Canada for success in an uncertain world.

horizontal initiative (initiative horizontale)

An initiative where two or more federal organizations are given funding to pursue a shared outcome, often linked to a government priority.

non-budgetary expenditures (dépenses non budgétaires)

Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance (rendement)

What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

performance indicator (indicateur de rendement)

A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

performance reporting (production de rapports sur le rendement)

The process of communicating evidence-based performance information. Performance reporting supports decision-making, accountability and transparency.

plan (plan)

The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally, a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead to the expected result.

planned spending (dépenses prévues)

For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts presented in Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their Departmental Plans and Departmental Results Reports.

Program (programme)

Individual or groups of services, activities or combinations thereof that are managed together within the department and focus on a specific set of outputs, outcomes or service levels.

Program Inventory (répertoire des programmes)

Identifies all the department's programs and describes how resources are organized to contribute to the department's Core Responsibilities and Results.

result (résultat)

A consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead they are within the area of the organization's influence.

statutory expenditures (dépenses législatives)

Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

target (cible)

A measurable performance or success level that an organization, Program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

voted expenditures (dépenses votées)

Expenditures that Parliament approves annually through an Appropriation Act. The Vote wording becomes the governing conditions under which these expenditures may be made.

Endnotes

- ⁱ *Strong, Secure, Engaged*, <https://www.canada.ca/en/department-national-defence/corporate/policies-standards/canada-defence-policy.html>
- ⁱⁱ *Strong, Secure, Engaged: Canada's Defence Policy*, <https://www.canada.ca/en/department-national-defence/corporate/policies-standards/canada-defence-policy.html>
- ⁱⁱⁱ Military operations, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations.html>
- ^{iv} 418 Squadron was re-established, <http://www.rcaf-arc.forces.gc.ca/en/article-template-standard.page?doc=418-squadron-flies-again/jxxoc1t0>
- ^v Operation NANOOK, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-nanook.html>
- ^{vi} Operation LIMPID, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-limpid.html>
- ^{vii} Operation LENTUS, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-lentus.html>
- ^{viii} NORAD, <https://www.canada.ca/en/department-national-defence/services/operations/allies-partners/norad.html>
- ^{ix} Operation CARIBBE, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-caribbe.html>
- ^x Operation REASSURANCE, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-reassurance.html>
- ^{xi} Enhanced Forward Presence, https://www.nato.int/cps/su/natohq/topics_136388.htm
- ^{xii} Operation UNIFIER, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-unifier.html>
- ^{xiii} Operation ARTEMIS, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-artemis.html>
- ^{xiv} Operation IMPACT, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-impact.html>
- ^{xv} Extension of Canada's command of NATO Mission Iraq until November 2020, <https://www.canada.ca/en/department-national-defence/news/2019/06/canada-to-command-nato-mission-in-iraq-for-a-second-year.html>
- ^{xvi} Jordan Border Road Rehabilitation project, <https://www.canada.ca/en/department-national-defence/news/2019/04/border-road-rehabilitation-project-ground-breaking-ceremony-in-jordan.html>
- ^{xvii} Operation PROTEUS, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-proteus.html>
- ^{xviii} Operation PRESENCE, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/op-presence.html>
- ^{xix} Operation PRESENCE, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/op-presence.html>
- ^{xx} Operation PROJECTION, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-projection.html>
- ^{xxi} Operation NEON, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-neon.html>
- ^{xxii} Current military operations, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/list.html>
- ^{xxiii} First anniversary of the CAF Transition Group, <https://www.canada.ca/en/department-national-defence/corporate/video/operations/caftg-1-anniversary.html>
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