

AIR FORCE

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# CREWBRIEF

## CANADA'S AIR FORCE — IN THE — NORTH SPECIAL EDITION

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National  
Défence

Défense  
nationale

Canada

Cpl Andrew Tobin guides a CP-140 Aurora from 14 Wing Greenwood, N.S., after its first historic landing at CFS Alert.

CPL JENNIFER KUSCHE

# AIR FORCE SETS SIGHTS ON THE FUTURE

## Air Force in the North

*"Canada's far North is a fundamental part of Canada—it is part of our heritage, our future and our identity as a country."*

We in the Air Force have taken these words from the Government of Canada's "Northern Strategy" to our hearts.

The Royal Canadian Air Force has a long history in the Arctic, going back to the 1920s, when our aircraft helped conduct surveys of Canada's vast northern territories. We operate there on a regular basis, carrying out aerial sovereignty, reconnaissance and surveillance patrols; conducting search and rescue operations; defending the airspace of Canada and the United States through our commitments to NORAD; and supporting northern operations and exercises.

Given the vastness of the Arctic and its limited infrastructure, it is clear that the Air Force will continue to play a significant role, not only in exercising sovereignty from a military perspective, but also in assisting in a pan-government approach to advance the Government of Canada's Northern Strategy.

I have therefore directed the Air Force to strive to improve current capabilities to ensure it continues to provide a relevant and effective response to real and potential challenges in Canada's arctic regions.

To guide this process, I have issued the first two phases of a three-phase Arctic Planning Directive that will progressively improve our capability to project presence and deliver a wide range of effects in the Arctic in support of Government and Defence strategic objectives.

In this special "Arctic" edition of *Crew Brief*, you will find an overview of our arctic presence and activities, a fuller discussion of the Arctic Planning Directive and a guest editorial from retired Brigadier-General Don Macnamara, an authority on national and international security affairs and strategic analysis, discussing the realities of operating in a country that incorporates an enormous, climatically challenging and sparsely populated region within its borders. I hope you enjoy this insight into both our roles and missions in the North as well as our plans for developing our presence there.

## Air Force Strategy

As I noted in my last message, in 2010 we issued the second edition of the *Canadian Forces Aerospace Doctrine*, the foundation upon which every aspect of our military activity is based.

Strategy derives from doctrine, and tactics derive from strategy. I have directed that we refresh our strategic ►



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vision to maintain our present momentum and set our sights on the future.

Over the past months your Air Force has ably demonstrated the hallmarks of a professional fighting force across the full spectrum of our capabilities, ranging from humanitarian assistance to the delivery of kinetic effects.

We are able to achieve these remarkable results because of the highly visible tactical skills and efforts of the entire Air Force team. What is less visible is the Air Force's strategic foundation that permits us to achieve our tactical goals. Without this foundation, tactical efforts gradually diverge, change, and lose focus and cohesiveness and we become less effective as an Air Force.

Since documents such as *Strategic Vectors* (2004) were created, we have established 2 Canadian Air Division and the Aerospace Warfare Centre, deployed an Air Wing for the first time, implemented new aircraft fleets such as the CC-177 Globemaster III, the CC-130J "Super" Hercules, the CH-147 Chinook helicopter and unmanned aerial vehicles. Meanwhile, the Canadian Forces has been adjusting to its transformed structure, including the relatively new organizations of the Canadian Expeditionary Force Command and Canada Command.

It is now time to renew our foundation to account for these and other changes.

Consequently, I am implementing strategic framework publications that will lay the foundation for a successful future.



CF troops make their way to a CH-146 Griffon helicopter from 438 Tactical Helicopter Squadron at Resolute Bay, Nunavut, on Aug. 20 during Operation Nanook 11.

*The Air Force Vision* will provide my vision and strategy for the Air Force as a fundamental Canadian Forces institution to generate the airpower required by the Government and the Canadian Forces. A renewed strategy will ensure the Air Force is an agile, combat-capable and integrated force that is powerful, effective and relevant into the future. As a result, the men and women of the Air Force will "own the future" as each of their actions will be guided by this strategic direction. I anticipate this document will be distributed shortly.

## RCAF redux

Finally, you will notice that my title at the end of this article has changed. As of Aug. 16, the historical designation "Royal Canadian Air Force" (RCAF) is once again the official name for Canada's Air Force, replacing the designation Air Command.

The names Royal Canadian Navy (RCN) and Canadian Army (CA) have also been reintroduced for Maritime Command and Land Force Command, respectively.

This does not represent a divergence from the unification of our Canadian Forces; we continue to be a tri-service, unified force with no change to our organization.

We will tell you more about this historic change and its implications in the next issue of *Crew Brief*.

André Deschamps  
Lieutenant-General

Commander, Royal Canadian Air Force



Evacuees from an area threatened by wildfires leave a CC-130 Hercules to safety. Two Hercules, one from 435 (T&R) Sqn, 17 Wing Winnipeg, Man., and the other from 424 (T&R) Sqn, 8 Wing Trenton, Ont., evacuated about 120 residents of Cat Lake, Ont., to Kapuskasing, Ont., in mid-July 2011.

MCPL COLIN AITKEN



SGT NORM MCLEAN

A CC-177 Globemaster III from 429 (T) Sqn, 8 Wing Trenton, Ont., takes off from Resolute Bay, Nunavut, after delivering supplies for Op Nanook 11 in August.

# CANADA'S AIR FORCE — IN THE — NORTH

The Government of Canada's *Northern Strategy* focuses on four priority areas: exercising our Arctic sovereignty, promoting social and economic development, protecting the North's environmental heritage, and improving and devolving northern governance, so that Northerners have a greater say in their own destiny.

As explained in the strategy the Government is exercising Canadian sovereignty and strengthening our Arctic presence, thereby "firmly asserting our presence in the North, ensuring we have the capability and capacity to protect and patrol the land, sea and sky in our sovereign Arctic territory. We are putting more boots on the Arctic tundra, more ships in the icy water and a better eye-in-the-sky".

Working in concert with other government departments, the Department of National Defence (DND) and the Canadian Forces (CF) are key enablers of Canadian northern sovereignty and government presence in the North. One of the CF's six core missions, laid out by the *Canada First* Defence Strategy (CFDS), is to have "the capacity to conduct daily domestic and continental operations, including in the Arctic and through NORAD".

Given the vastness of the Arctic and its limited infrastructure, it is clear that the Air Force will continue to have a significant role to play, not only in exercising sovereignty from a military perspective, but also in assisting in a pan-government approach to advance the Government of Canada's *Northern Strategy*.

The Commander of the RCAF, Lieutenant-General André Deschamps, has directed the Air Force to "strive to improve current capabilities to ensure it continues to provide relevant and effective response to real and potential challenges in Canada's arctic regions". ►



These are the Air Force's main areas of activity in the North.

## Canadian Forces Station Alert

Canadian Forces Station (CFS) Alert on Ellesmere Island, Nunavut, is the most northern permanently-inhabited location in the world, situated only 817 kilometres from the geographic North Pole. CFS Alert falls under the command of the Air Force through 8 Wing Trenton, Ont.

CFS Alert maintains signals intelligence facilities in support of Canadian military operations, with signals intelligence being conducted remotely using the equipment and facilities located in Alert. CFS Alert also maintains a geo-location capability to support operations and High Frequency and Direction Finding facilities to support search and rescue (SAR) and other operations, and provides support to Environment Canada and arctic researchers. In the execution of its mission, CFS Alert plays a key role in exercising Canadian sovereignty in the Arctic.

At any given time, there are approximately 25 military personnel stationed at CFS Alert, as well as 30 civilian support personnel and up to four Environment Canada staff. Canada Command carries out Operation Boxtop, typically twice each year, to resupply the station using Air Force and, occasionally, contracted airlift. Canada Command also conducts Operation Nevus annually to maintain and repair the microwave communication system across Ellesmere Island that links Alert to Eureka (about 400 kilometres south of Alert) and onward to Ottawa and the rest of Canada.

## Aerial reconnaissance

Canada's North is a geographically vast and diverse area, from dense boreal forests through the tundra plains to rocky coastlines. Relative to more southern areas of the nation, the North is also a sparsely populated region. Distance is also a factor, as most of the CF's main operating bases are located far away in southern Canada.

Due to these realities, the Canadian Forces require an aerial reconnaissance presence to monitor Canadian territory. To meet this need, the Air Force deploys CP-140 Aurora long range patrol aircraft on regular northern patrols. In March 2011, an Aurora landed at CFS Alert for the very first time, providing Canada with an even greater capability to maintain Canada's territorial sovereignty above and below the Arctic Ocean's surface.

With patrols averaging 10 hours' duration and distances of 5,000 kilometres, these strategic surveillance aircraft safeguard Canada's waters from emerging security challenges such as illegal fishing, clandestine immigration, drug trafficking and pollution violations. Most of these reconnaissance activities are in support of various Government of Canada departments.



An aerial view of CFS Alert, photographed during Op Boxtop from the ramp of a CC-130 Hercules aircraft.



The sign that welcomes visitors to the "top of the world"—CFS Alert. A CC-150 Polaris and two CF-18s fly in formation overhead during an arctic sovereignty exercise.

The Auroras also conduct environmental surveillance, with wildlife spotting and description being a secondary task on all missions (for instance, reporting whale sightings during standard coastal patrols).

They also participate in SAR missions as secondary resources; in addition to providing surveillance they carry sea and arctic Survival Kits Air Droppable (SKADs) containing basic survival materials. The SKADs can be dropped to victims to help them stay alive until more help can reach them.

## Support to sovereignty operations

Each year, the Air Force engages in major sovereignty operations in Canada's North in support of Joint Task Force (North), the Canada Command formation tasked with overseeing operations in the North. Three major operations are conducted annually: Operations Nanook, ►

Nunakput and Nunaliut. As each operation is different, the air support needed for each is varied, but the Air Force typically provides a rapid projection capability, through means such as aircraft and expertise for airlift, reconnaissance and other related capacities.

## Aerospace defence and security

Since 1958, Canada and the United States have been signatories on the North American Aerospace Defense Command (NORAD) agreement, a bi-national arrangement that mandates NORAD to provide aerospace warning and control for both nations.

Canadian and American militaries maintain fighter aircraft on NORAD alert in Canada, the continental United States and Alaska to protect Canadians and Americans from aerospace threats.

In Canada, the Canadian NORAD Region, headquartered in Winnipeg, relies upon CF-18 Hornet fighter aircraft for aerospace defence. Canada's fighter forces are based primarily at 4 Wing Cold Lake, Alta., and 3 Wing Bagotville, Que. Fighter aircraft are controlled from the Canadian Air Defence Sector (CADS) located on 22 Wing North Bay, Ont.

**Forward Operating Locations.** In support of the NORAD mission, the Air Force maintains four forward operating



CF-18 pilot Capt Yuri "Sedlo" Mokievsky-Zubok from 409 (TF) Sqn stands ready to launch while forward-deployed in Inuvik, N.W.T.

locations (FOLs) where it can deploy fighter aircraft to respond more rapidly to, or act in anticipation of, increased air activity. The FOLs are located in Inuvik, N.W.T.; Yellowknife, N.W.T.; Rankin Inlet, Nunavut; and Iqaluit, Nunavut.

**North Warning System.** CADS also provides surveillance, identification, control and warning for the aerospace defence of Canada and the United States. To help its operators see air movements in the North, CADS operates 47 radar sites located along the Arctic Ocean from the Yukon/Alaska border to Baffin Island, as well as down the Labrador coast. This chain of automated radars, known as the North Warning System, helps the Canadian NORAD Region maintain continuous air surveillance of the northern approaches to North America as part of Canada's NORAD commitment and contribute to Canada's air sovereignty, warning and assessment of threats.

## Search and rescue

Canada's aeronautical and maritime SAR system responds to more than 8,000 cases annually; of those, about 80 to 100 missions involving the CF are conducted north of 60 degrees latitude (that is, within our three territories and a portion of northern Quebec). Of those, 20 to 25 cases fall within the primary national aeronautical or maritime SAR mandates, with the remainder falling under requests for assistance to territorial SAR authorities for cases within their jurisdiction.

Under the auspices of Canada Command, the formation responsible for domestic operations in Canada, the Air Force supports SAR in three regions, each named for the location of their respective Joint Rescue Coordination Centres (JRCCs): Victoria, Trenton and Halifax.

Each of these SAR regions encompasses portions of Canada's North. As directed by their respective coordination ►



Left: The welcome sign at FOL Inuvik, N.W.T., one of four FOLS operated by the Air Force in support of the NORAD mission.

Right: A CC-138 Twin Otter from 440 (T) Sqn, 17 Wing Winnipeg, Man. (based in Yellowknife, N.W.T.) waits on the ramp at Resolute Bay, Nunavut while a CC-177 Globemaster III takes off during Op Nanook 11.





centres, and working with various government and volunteer SAR partners, the Air Force provides aircraft and aircrews for SAR operations from its primary SAR squadrons:

- 103 Search and Rescue Squadron, 9 Wing Gander, N.L., equipped with the CH-149 Cormorant helicopter.
- 413 Transport and Rescue Squadron, 14 Wing Greenwood, N.S., equipped with the CC-130 Hercules aircraft and the CH-149 Cormorant helicopter.
- 424 Transport and Rescue Squadron, 8 Wing Trenton, Ont., equipped with the CC-130 Hercules aircraft and the CH-146 Griffon helicopter.
- 435 Transport and Rescue Squadron, 17 Wing Winnipeg, Man., equipped with the CC-130 Hercules aircraft.
- 442 Transport and Rescue Squadron, 19 Wing Comox, B.C., equipped with the CC-115 Buffalo aircraft and the CH-149 Cormorant helicopter.

Within these squadrons are aircrew who fly the aircraft, ground crew who keep the aircraft serviceable and SAR technicians. These highly-trained specialists in survival and paramedic response—in a variety of environments—respond to distress calls to help treat and extract the ill and injured. Together, these personnel form teams that save many lives every year, including in Canada's North.

### Airlift capability in Canada's North

The CC-138 Twin Otter, flown by 440 Transport Squadron is one of the aircraft that is sometimes called upon to support SAR. Reporting to 17 Wing in Winnipeg, Man., the squadron is stationed in Yellowknife, N.W.T. and is the only formed Air Force flying unit permanently stationed in Canada's North.

Canadian-designed and produced CC-138 Twin Otters carry out a wide range of tasks. Flying these rugged aircraft in some of the harshest weather conditions on the planet, the squadron is capable of conducting "off-airport" operations on skis in the winter and on tundra tires in the summer, as well as conventional airport operations.



Capt Brian Sullivan (left) and Capt Russ Black (right), pilots with 440 (T) Sqn, Yellowknife, N.W.T., in the cockpit of their CC-138 Twin Otter after a supply run during Op Nanook in 2010.

The ability to transport people and equipment across vast distances is key to operating in the North. Consequently, the Air Force is uniquely positioned to operate in the North and support other CF elements or other government departments and agencies in doing so, due to its airlift capabilities.

The airlift responsibility falls primarily to the CC-177 Globemaster III strategic airlifter and CC-130 Hercules tactical airlifter. Although these aircraft are based in southern Canada, their range allows them to reach the farthest reaches of Canada's North. Other aircraft, such as the CC-138 Twin Otter, also carry out airlift missions in the North as required.

The Air Force will begin taking delivery of 15 new CH-147 F-model Chinook helicopters in 2013. Based at Canadian Forces Base Petawawa, Ont., this powerful workhorse is well suited to operating in the harsh and sparse conditions of the North. Long-range fuel tanks will provide the "legs" for the Chinook to travel to remote locations, delivering material and assistance whenever and wherever needed, with no runway required.

The Air Force is also able to operate its CH-146 Griffon fleet in the North in support of domestic operations; these aircraft have proven very capable and will continue to be used in support of CF operations in our Arctic.



The J-model CC-130 Hercules and a crew from 436 (T) Sqn, 8 Wing Trenton, Ont., landed at CFS Alert for the first time on Sept. 20, 2010.

### For more information:

The Canadian Forces in the North  
[www.canadacom.forces.gc.ca/nr-sp/bg-do/09-002a-eng.asp](http://www.canadacom.forces.gc.ca/nr-sp/bg-do/09-002a-eng.asp)

Canadian Forces Station Alert  
[www.airforce.gc.ca/8w-8e/alert](http://www.airforce.gc.ca/8w-8e/alert)

Royal Canadian Air Force  
[www.airforce.gc.ca](http://www.airforce.gc.ca)

# CANADA SIGNS ARCTIC SAR AGREEMENT

Canada's Health Minister, Leona Aglukkaq, attended the seventh Arctic Council ministerial meeting in Nuuk, Greenland in May where council nations signed a multilateral search and rescue (SAR) agreement.

The Arctic Council is a high-level, intergovernmental forum that addresses issues faced by the eight arctic nations—Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States—and its indigenous peoples.

"This legally binding agreement underscores the capacity of the Council to address emerging arctic issues," said Minister Aglukkaq. "Improving the health and well-being of the people who live in the North is a priority for Canada."

The agreement requires ratification by each of the Council's members before it comes into force.

In recent years, there has been a marked increase in maritime and aeronautical traffic in the Arctic. This increase in traffic underscores the importance of having appropriate mechanisms in place to ensure cooperation and coordination amongst arctic states in their SAR activities.

The SAR agreement will improve Canada's cooperation and coordination with other arctic states in responding to incidents, recognizing the unique challenges of the Arctic environment.


Key provisions in the draft agreement include designation by all arctic states of their respective responsible search and rescue authorities, agencies and coordination centres; principles for conducting, cooperating and coordinating search and rescue operations; and developing best practices including conducting joint search and rescue training exercises as appropriate.

The Canadian Forces remain responsible and capable of conducting aeronautical and maritime SAR anywhere in Canada's internationally-agreed-to SAR areas of responsibility, including the Arctic.

Having said that, the agreement will not necessitate a change to Air Force SAR operations or allocated resources, including current procurement projects.

SAR responsibilities in the Arctic are divided between the eight Arctic Council nations. Sweden will chair the Arctic Council for the next two years with Canada assuming the chair in 2013.

The Arctic Council has posted the agreement on its website at <http://arctic-council.org>.



WO Darcy St-Laurent proved SAR techs are truly survival specialists after he and two civilian adventurers trekked more than 800 kilometres and 51 days on the ice and open water of the Arctic Ocean.



# PLANS FOR NORTHERN ENGAGEMENT



CPL COLIN AITKEN



CPL EVAN KUEJZ



SGT RON FLYNN



CPL EVAN KUEJZ

The North is changing rapidly, and activity in the Arctic has evolved—driven by a multitude of factors ranging from climate change to a rise in domestic and international interest. As a result, the Government of Canada has developed a northern strategy that will ensure the proper tools are in place to exercise sovereignty, promote social and economic development, protect our environment and improve northern governance.

The fundamental concept that the Arctic is “part of our heritage, our future and our identity as a country” is reinforced in this strategy. As it says, Canada’s presence in the North will be strengthened by “ensuring we have the capability and capacity to protect and patrol the land, sea and sky in our sovereign arctic territory. We are putting more boots on the arctic tundra, more ships in the icy water and a better eye-in-the-sky”.

So what does a “better eye-in-the-sky” mean for the Air Force?

The Air Force’s role in whole-of-government strategy has been solidified through a three-phase Air Force Arctic Planning Directive. Through its planning and implementation, the Air Force will further develop its capabilities to help maintain security in Canada’s northern regions while improving its ability to respond to crises and aid other government departments in fulfilling their northern mandates.

Phase II, issued by Lieutenant-General André Deschamps in late 2010, is now being implemented and will go on through to 2015.

“The Air Force will become a more relevant, responsive and effective arctic-capable aerospace power,” he said. “Second only to current operations, further development of achievable Air Force arctic capabilities remains my top near-term priority.”

During this phase, the Air Force will focus on the people, equipment and infrastructure development necessary to handle three main categories of tasks: situational awareness and presence; public safety and environmental stewardship; and international cooperation.

These three task categories include responsibilities such as fisheries and pollution patrols, border security, humanitarian assistance, contributing to NORAD, sovereignty patrols and search and rescue missions. Although some of these initiatives are new, they are certainly not new to the Air Force.

The Air Force will build on current operating experiences by performing the same missions in the North that it does in more southern climates. The Air Force will also address the need to be properly outfitted to perform these tasks by improving current capabilities—including exploring

potential modifications to aircraft, equipment and personnel gear so that they can fully operate in northern climates.

Phase I of the plan, issued a year ago, looked at current Air Force capabilities, proposed means to make them more effective in supporting arctic operations and initiated analysis of enhanced effects. One of the Phase I accomplishments was the first landing of the CC-177 Globemaster at CFS Alert in August 2010. This capability—and others—will continue to grow during Phase II.

Historically, the Air Force has played a major role in contributing to the mapping, manning and supporting of Canada’s northern lands; major contributions such as northern radar systems, communications and signals intelligence at CFS Alert and the transfer of 440 Transport Squadron to Yellowknife, N.W.T., in support of the Joint Task Force Northern (JTFN) are prime examples of past accomplishments.

Given the vastness of the land, it is no surprise that air power will continue to play a major role in supporting northern activities.

You can find the national northern strategy at [www.northernstrategy.gc.ca](http://www.northernstrategy.gc.ca).





# CANADA'S GEOSTRATEGIC REALITIES

By Brigadier-General (Ret'd) Don Macnamara

From time to time, we need to remind ourselves of Canada's geostrategic realities to appreciate Canada's defence needs and challenges.

Canada is the second largest country in the world—second only to Russia—and is bounded by three oceans with the world's longest coastline. The approaches to Canada that are across these oceans are also approaches to the United States, Canada's southern neighbour and only bordering state.

## Vast distances

Canada's Arctic—representing 40 per cent of Canada's territory but less than 0.4 per cent of the population—is virtually uninhabited. Arctic distances are great, the climate forbidding for two-thirds of the year and the Arctic Ocean coastline is almost half of that world's longest coastline.

Notwithstanding the climatic and geographic challenges and changes, the North is still attractive to those nations seeking to exploit its mineral

and petroleum resources. Sovereign awareness of such activities in the North is especially difficult during the long winter months but always challenging because of the distances and sea ice. Canada must have the means for surveillance of its territory, the detection and identification of activity in its land, sea or air spaces and the interception of those whose activities are not in Canada's security or economic interests.

## Historical ties

Canada has long had the cooperation of the United States regarding the Arctic. This only stands to reason given that the North is also an approach to the U.S. heartland. It should be recalled that the 1940 Ogdensburg Agreement between U.S. President Franklin Roosevelt and Canadian Prime Minister Mackenzie King reflected Washington's understanding that it could not "stand idly by" should Canada be attacked, while Canada reciprocated, pledging that no attack

on the U.S. would be permitted from across Canadian territory.

To live up to this pledge is indeed a defence challenge for Canada. To have a sovereign capacity to support and maintain Canada's interests in defending the maritime and air approaches to North America—air and sea control—in cooperation with the United States is a fundamental, vital interest for Canada.

## Security job one

The defence of Canada and the security of its citizens is most certainly the first priority for Canada's government. Although Canada's interests are frequently defended far from our shores to prevent the need to defend them on our doorstep, the defence of our homeland remains "job one".

The Canadian Forces must have the necessary and appropriate means to meet this obligation and this should be recognized by all Canadians as being in their own national security interest. I believe that all of us, as Canadians, need to be reminded of this from time to time.

*Don Macnamara is a retired Air Force brigadier-general, an authority on national and international security affairs and strategic analysis, a retired associate professor at Queen's University and honorary colonel of the Canadian Forces Staff College.*



MCPL KEVIN PAUL



MAJ BRENT HODDINOTT



CPL SHILO ADAMSON





CPL TINA GILLIES

# LAST H-MODEL HERCULES LEAVES AFGHANISTAN

A member of 8 Air Maintenance Squadron, 8 Wing Trenton, Ont., flies the 8 AMS flag as CC-130 Hercules #319 taxis along Kandahar Airfield in Afghanistan for its final flight.

## It was an historic day when the last Canadian H-model CC-130 Hercules in Afghanistan made its final flight.

The oldest of the Afghanistan workhorses, tail number 319, taxied down the runway at Kandahar Airfield for the last flight on April 25, 2011.

"The legacy model Hercules have been in this theatre since 2002 and I've flown [it] quite extensively all over Afghanistan—to austere airfields hauling all kinds of cargo and personnel, runs to and from Camp Mirage," said aircraft commander Captain Neil Prescott.

"It's the end of an era for these aircraft and now we're passing the baton to the J-model Hercules."


Task Force Canuck, the Tactical Aviation Unit that flew the Hercs in Afghanistan, was part of the Joint Task Force Afghanistan Air Wing, and flew more than 400 missions, moved well over two million pounds of cargo and transported more than 25,000 passengers within Afghanistan. Aircraft number 319 conducted many of those missions and, since it first came into service in the 1960s, has racked up more than 44,000 hours of flight time.

Colonel Al Meinzing, then-commander of Task Force Silver Dart, said the fact the H-model Hercules were able to fly as long as they did in Afghanistan was due to the professionalism of the aircraft technicians who kept them flying.

"We get a little sentimental at times, but the aircraft is nothing without the entire team and I think in this case we need to tip our hats to the technicians in the CC-130 community who have done such an admirable job for so many years."

Aircraft 319 came home in Trenton to 436 Transport Squadron at 8 Wing Trenton, Ont., for maintenance and is now flying again in Canada.


There has been some discussion as to whether or not CC-130 tail number 319 is actually an H model or E model. The Air Force's CC-130E Hercules, such as tail number 319, were upgraded with H-model engines and completely new avionics. So, while technically they aren't H models, in the sense that they weren't manufactured as H models, they can't be considered E models either. Therefore, the Air Force considers these upgraded aircraft to be H models.

The only "Super E"s were tail numbers 329–333, which had upgraded engines, but older avionics. 



# CYCLONE TRAINER ARRIVES



The first interim maritime helicopter, the CH-148 Cyclone, arrived at 12 Wing Shearwater, N.S., in early May to support training of Canadian Forces aircrew and technicians for the maritime helicopter project. The CF will take formal delivery and assume ownership of the helicopter once a Canadian military airworthiness certificate is granted and initial aircrew flight training is conducted. The new Cyclone, in its final configuration, will be at the forefront of modern technology and will be one of the most capable maritime helicopters in the world. 


## INFRASTRUCTURE UPDATE

Several advances in Air Force infrastructure renewal have occurred over the past few months, including the following:

- Late last year the sod was turned for a \$134.8 million, 50,000 m<sup>2</sup> hangar at Canadian Forces Base Petawawa, Ont., to house Canada's new fleet of CH-147F Chinook helicopters.
- A \$55.6 million contract for two modern deployable tactical control radars to replace aging radar systems at 4 Wing Cold Lake, Alta., and 3 Wing Bagotville, Que., was awarded to Thales Canada Inc.
- A \$5.6 million contract was awarded to TLD America, with production at TLD Canada Inc., for new aircraft cargo loaders to be located at various wings across the country.
- \$1.6 million in funding was announced for upgrades to the sewer system at 17 Wing Winnipeg, Man.
- A new helicopter hangar will be built at Patricia Bay, near Victoria, B.C.
- to house 443 Maritime Helicopter Squadron's CH-148 Cyclone. Located at Canadian Forces Base Esquimalt, the hangar will include a new 20,000 m<sup>2</sup> facility that will consolidate the operations and support functions of 443 (MH) Sqn into one building.
- Contracts for a maintenance hangar for the new CC-130J Hercules and a new facility for the air cadet glider school at 8 Wing Trenton, Ont., were announced. Graham Construction and Engineering won the contract for Hangar 2, a two-bay hangar that will cost \$44.2 million, measure 11,582 m<sup>2</sup> and hold two CC-130J aircraft. Its completion is estimated for spring 2013. Peak Engineering was awarded the contract for an \$8.5 million air cadet glider school facility that will be used for aircraft maintenance and storage and contain classrooms for instruction. It will measure 4,924 m<sup>2</sup> and should be finished by summer 2012.



Defence Minister Peter MacKay announces \$52 million in projects at 8 Wing Trenton, Ont., in July.

- A new fire hall at 14 Wing Greenwood, N.S., opened earlier this year. The \$8 million, state-of-the-art 23,000 m<sup>2</sup> structure has updated administrative, training, operational and domestic features necessary for a modern fire department. 



# MAINTAINING A NORTHERN FOOTPRINT

The Air Force continues to enable the Canadian Forces to operate in the North, whether through regular resupply missions to Canadian Forces Station (CFS) Alert, the High Arctic Data Communications System (HADCS), ongoing search and rescue missions or participation in Canada's three major sovereignty operations in the North—Nunavut, Nanook and Nunakput.



SAR tech MCpl James Cooke packs his parachute after performing a jump from 10,000 feet during the closing ceremonies of Op Nunavut 10.

CPL SHILO ADAMSON




CF medical personnel carry a stretcher bearing one of the three survivors of the First Air plane crash at Resolute Bay, Nunavut, on Aug. 20.

In June, approximately 250 CF personnel conducted Operation Nunavut 11, which included patrols by Canadian Rangers, participation by search and rescue technicians and support from land and air units across Canada in the eastern and High Arctic.

Between May and the end of July, several Air Force assets, including a CC-130 Hercules from 426 Transport and Training Squadron, 8 Wing Trenton, Ont., and a CC-138 Twin Otter from 440 Transport Squadron, 17 Wing Winnipeg, Man., participated in Op Nevus, the annual resupply of the HADCS, a communication system that spans approximately 467 kilometres between Eureka and CFS Alert, both on Ellesmere Island.

Op Nunakput is conducted in the western Arctic with the RCMP and other federal departments and agencies. The primary focus of this operation is to conduct intelligence, surveillance and reconnaissance activities using CP-140 Aurora strategic long range patrol aircraft and CC-138 Twin Otter aircraft, as well as Canadian Rangers on the ground.

Operation Nanook 11, a whole-of-government operation, took place from Aug. 1 to 31, 2011 in the eastern and High Arctic. The Air Force was scheduled to conduct a major air disaster exercise as part of the operation but this was cancelled due to the tragic crash of a First Air passenger aircraft on Aug. 20 near Resolute Bay, Nunavut. CF personnel responded rapidly to the crash with medical personnel and aircraft. (Read more in the next issue of *Crew Brief*). 

# NORAD PARTICIPATES IN EX VIGILANT EAGLE

The Russian Federation Air Force and the North American Aerospace Defense Command (NORAD) conducted their second cooperative air defense exercise between Aug. 7 and 9.

The exercise began as an initiative that NORAD had been pursuing jointly with the Russian military to transform their relationship and improve cooperation. It was authorized under a cooperative military agreement signed by the presidents of the Russian Federation and the United States of America. The agreement tasked NORAD, the bi-national U.S. and Canadian command, and the Russian Federation Air Force to conduct a live-fly exercise for up to five days.

The exercise, named Vigilant Eagle, involved Russian, Canadian and U.S. Air Force personnel operating from command centres in Russia and the United States.


It consisted of two international flights: one originating in Alaska and traveling into Russian airspace followed by one originating in Russia and traveling into U.S. airspace.

Airborne warning and control aircraft (AWACS E-3B and A-50) from Russia and the United States coordinated

Over the Kamchatka Peninsula, a Russian SU-27 fighter escorts Fencing 1220, a Gulfstream 4 simulating a hijacked airliner, over the Kamchatka Peninsula as part of Exercise Vigilant Eagle, Aug. 8, 2010.

fighter-interceptor aircraft and refuelling aircraft from both countries.


Civilian agencies of Russia (Federal Air Navigational Service) and the United States (Federal Aviation Administration and the Transportation Security Administration) were also involved in the exercise along with the military air operations centres at Elmendorf Air Force Base, Alaska, and Khabarovsk, Russia.

Future combined exercises will enhance cooperation between the Russian Federation Air Force and NORAD in preventing possible threats of air terrorism. Continuing to exercise communication procedures between the two nations will continue to strengthen the working relationship and will provide the opportunity to cooperatively detect, track, identify, intercept, and follow an aircraft as it proceeds across international boundaries. 

MAJ MIKE HUMPHREYS


## OP JAGUAR

In response to a request from the Government of Jamaica, Canada deployed three CH-146 Griffon tactical helicopters and 65 Canadian Forces personnel to support the Jamaica Defence Force during the 2011 hurricane season. The operation began in mid-August.

The request from Jamaica addresses a specific capability gap in the Jamaica Defence Force, which currently does not have helicopters suitable for taskings such as search and rescue (SAR) and medical evacuation flights. While in support of the Jamaican Defence Force, Canadian Air Force personnel will also take this opportunity to conduct SAR training activities in order to meet essential Canadian Forces SAR training requirements in support of domestic SAR capabilities. 

## EX MAPLE FLAG CANCELLED

The Air Force cancelled Exercise Maple Flag 44, an annual international air combat training exercise scheduled to take place from May 30 to June 24, 2011, in Cold Lake, Alta., due to the international commitment to NATO-led operations over Libya and other operations conducted world-wide by Canada and its Allies.

Maple Flag events have only been cancelled twice before, both due to a high tempo of operations: once in 1991 due to the Gulf War, and again in 1999 due to the Kosovo air campaign. 





Sgt Les Page, a CC-130J Hercules loadmaster from 8 Wing Trenton, Ont., gives a thumbs up to the rest of his crew that cargo is ready to be dropped to a remote forward operating base in Afghanistan in July.

# AFGHANISTAN COMBAT MISSION ENDS

The last rotation of Joint Task Force Afghanistan (JTF-Afg) is the Mission Transition Task Force (MTTF), which deployed in July and will remain in Afghanistan until December 2011. Their job is to wrap up all Canadian Forces activities at Kandahar Airfield (KAF) and in Kandahar Province.

The majority of personnel deployed are logisticians and technicians who are packing and shipping vehicles, equipment and materiel being transferred to Operation Attention in Kabul or repatriated to Canada, or handling the transfer of infrastructure and goods to be left in Kandahar Province for coalition partners or the Afghan government.

Although the JTF-Afg Air Wing, known in Afghanistan as “Task Force Silver Dart”, ended operations on Aug. 18, the Hercules deployed in Kandahar Province will continue to fly in support of the MTTF until the end of 2011.

Planning has been underway for months to ensure that the air aspect of the transition is achieved efficiently and effectively as part of the overall effort.

Lieutenant-General André Deschamps says as the drawdown takes place, the

Air Force can look back with tremendous pride at 10 years of operating in Afghanistan and especially operations with the Army in more recent years.

“I think [we’ve] been very successful. The Army, as our primary customer, is very satisfied because they got what they needed, which is mobility, when they needed it, at the right place, at the right time.

“It’s increased their security factor significantly. The entire principle behind air mobility was to reduce the amount of ground movement required, therefore reducing the risk of improvised explosive device casualties which are pretty significant as we look at the last few years. The air wing has made a big difference in that domain, as far as the number of people that have been moved by air, therefore reducing that risk dramatically.”

“Task Force Erebus”, operating the CU-170 Heron unmanned aerial vehicle (UAV) detachment in Afghanistan, flew its last flight in mid-July. The Herons will remain in Afghanistan when all personnel have returned home to Canada.

The Air Force has been at the forefront of support to operations in Afghanistan since January 2002.

Up to 950 military Canadian Forces trainers and support personnel will now be taking part in Operation Attention, the Canadian component of the NATO Training Mission—Afghanistan. Op Attention supports the Afghan government and international community’s objective of transferring responsibility for Afghan security to Afghans by 2014 and Canada’s military will continue the training mission until March of that year.



Flight engineer and door gunner Sgt Jim Nobbs fires an M134D Dillon Mini Gun from a CH-146 Griffon helicopter during a training exercise in Afghanistan in July.



CWO Robert Harbec greets Air Force personnel returning to 3 Wing Bagotville, Que. from Op Mobile, including Cpl Marie-Pier Rémillard.

# TASK FORCE LIBECCIO

## UPDATE

The Air Force continues to support Operation Mobile, the Canadian Forces' participation in NATO's Operation Unified Protector that is enforcing the Libyan arms embargo and no-fly zone authorized in U.N. Security Council Resolution 1973.

Air Force participation in the operation is known as Task Force Libeccio. CF aircraft are currently flying from two NATO bases in Italy: Trapani-Birgi, a forward operating base co-located with Vincenzo Florio Airport on the western point of the island of Sicily; and Sigonella, a major naval air base on the eastern coast of Sicily. ►

### Number of sorties as of Sept. 12, 2011

CF-18 HORNET	807
CC-150 POLARIS	208
CC-130 HERCULES	139
CP-140 AURORA	147

\* Note: A "sortie" is an operational flight by one aircraft. (NATO definition)

Left: LS Peter Fitzgerald, a boatswain on HMCS Charlottetown, conducts Ship Without Air Department (SWOAD) training off the coast of Libya during Op Mobile. Ships without an air detachment undertake SWORD training so they can safely land a helicopter an emergency.

Right: Cpl Byron Plume, an air weapon system technician, de-arms an AIM-9 missile on a CF-18 Hornet at Trapani.



CPL CHRIS RINGIUS



CPL JACKSON YEE





An air combat systems officer from 407 (LRP) Sqn, 19 Wing Comox, B.C., checks coordinates aboard a CP-140 Aurora in Sigonella, Sicily.



Lower left: MCpl Veronique Lussier, a traffic technician, receives freight from a CC-177 Globemaster III during Op Mobile in Trapani, Italy, in June. Right: Cpl Vincent Canuel, a CP-140 aircraft structures technician serving with Task Force Libeccio, inspects a CP-140 Aurora hydraulic service centre for leaks.




In mid-August, Task Force Libeccio comprised the following assets:

- At Trapani-Birgi, a CF-18 Hornet detachment of seven aircraft (three pairs and a spare) from 409 Tactical Fighter Squadron at 4 Wing Cold Lake, Alta., flying missions to enforce the no-fly zone.
- At Trapani-Birgi, two air-to-air refuelling detachments supporting Canadian and allied aircraft flying missions to enforce the no-fly zone: one CC-150 Polaris tanker from 437 Transport Squadron at 8 Wing Trenton, Ont., and two CC-130 Hercules tankers from 435 Transport Squadron at 17 Wing Winnipeg, Man.
- At Sigonella, a CP-140 Aurora detachment made up of aircraft from 405 Long Range Patrol Squadron at 14 Wing Greenwood, N.S., and 407 Long Range Patrol Squadron at 19 Wing Comox, B.C., flying intelligence, surveillance

and reconnaissance missions in support of enforcement efforts in both the no-fly zone in Libya and the embargo zone at sea.

- In addition to Task Force Libeccio, a CH-124 Sea King helicopter from 443 Maritime Helicopter Squadron (part of 12 Wing Shearwater, N.S., but located at Patricia Bay, B.C.) deployed with HMCS Vancouver as part of Operation Unified Protector in July. HMCS Vancouver replaced HMCS Charlottetown, which deployed in March with its helicopter detachment.

The first group of Task Force Libeccio personnel from 3 Wing Bagotville, Que. returned home in May after deploying on March 18. They were replaced by personnel from 4 Wing Cold Lake, Alta.

In June, the Government extended Canada's engagement in Libya to the end of September. 



# AID TO CIVIL AUTHORITIES

Mother Nature wreaked havoc on parts of the Prairies, Quebec and Ontario this spring and summer. The Canadian Forces responded rapidly to requests for assistance in all instances by sending in air, naval and ground support.

**July 19** — More than 385 residents threatened by wildfires in the communities of Fort Hope and Sandy Lake, Ont., were evacuated on board two CC-130 Hercules aircraft.


**July 13** — Two CC-130 Hercules aircraft assisted with the evacuation of 237 residents from Cat Lake First Nation, Ont., after wildfires in the area threatened their welfare.

**July 6** — Two CC-130 Hercules aircraft assisted with the evacuation of approximately 510 residents of the Deer Lake First Nations community, Ont., also in response to dangerous forest fires.

**July 2** — The CF deployed about 200 personnel to Souris, Man., to assist in reinforcing flood control measures along the Souris River.

**June 2** — The CF worked around the clock to evacuate residents of Wollaston Lake and Hatchet Lake in northern Saskatchewan after wildfires in the area broke out. Four CC-130 Hercules aircraft and four CH-146 Griffon helicopters airlifted approximately 541 residents from the areas.

**May 24** — The CF deployed 840 personnel to assist with flooding in the Montérégie region of Quebec's Richelieu Valley.

**May 9** — The CF deployed more than 1,000 personnel to reinforce flood control measures on the Assiniboine River between Brandon and Winnipeg, Man., and assist with evacuating endangered citizens. 



MASTER CORPORAL HOLLY COWAN



MCPL HOLLY COWAN



MCPL HOLLY COWAN



SGT DAREN KRAUS

Top Left: An intersection in Manitoba flooded by the Assiniboine River.

Top Right: A CH-146 Griffon search and rescue helicopter from 424 (T&R) Sqn, 8 Wing Trenton, Ont., practices hoisting a SAR technician down to an Elie, Man., high school football field in preparation for flood assistance.

Middle: A CH-146 Griffon helicopter drops a load of sandbags in Portage La Prairie, Man., during flood relief operations in May.

Bottom: Sgt Randy McOrmond, a SAR tech from 435 (T&R) Sqn, 17 Wing Winnipeg, Man., assists a resident of the Wollaston Lake and Hatchet Lake area into a CC-130 Hercules at Points North, Sask.



# ROYAL TREATMENT

The Duke and Duchess of Cambridge experienced Canada's vast and diverse geography in late June and early July, thanks, in part, to the outstanding work of Air Force personnel at various units across the country who supported the mission.

To paraphrase the sentiments expressed by many Air Force members who had the "honour and privilege" of flying and supporting the royal newlyweds throughout their tour of Canada, the operation was completed on time, on target, safely and securely.

Bravo Zulu to all those involved! 🇨🇦



**A.** The Duke and Duchess of Cambridge wave goodbye to Canada from the top of the stairs of the CC-150 Polaris in Calgary, Alta., while being saluted by mission commander LCol Andy Cook.

**B.** Maj Patrick MacNamara (left), Flight Lieutenant William Wales (centre) and Capt Josh Willemssen approach a CH-124 Sea King helicopter in preparation for F/L Wales' waterbird training over Dalvay Lake, P.E.I.

**C.** The Duchess of Cambridge takes a quick video of her husband, Prince William, performing his waterbird training while Capt Josh Willemssen watches.

**D.** F/L Wales performed three-quarters of the waterbird landings on Dalvay Lake, P.E.I., and was a complete "natural" according to his instructors.

**E.** The Duke and Duchess of Cambridge wave goodbye to the crowds in Quebec City, Que., while being saluted by the mission commander and commanding officer of 437 (T) Sqn, 8 Wing Trenton, Ont., LCol Andy Cook.

**F.** F/L William Wales, RAF search and rescue pilot, inside the cockpit of a CH-124 Sea King helicopter at Dalvay, P.E.I., waits to take off for his waterbird training.

# CAPT JEAN LEROUX EQUERRY


As if flying 3,000 hours and performing more than 150 search and rescue missions was not enough, Captain Jean Leroux can now add equerry to Prince William to his list of career accomplishments.

Capt Jean Leroux (background), equerry to Prince William (foreground), watches as High Royal Highness spoke to crowds in Ottawa on June 30.

The search and rescue (SAR) pilot from 442 Transport and Rescue Squadron, 19 Wing Comox, B.C. was hand-picked by the Duke of Cambridge to be his equerry throughout the eight-day visit to Canada by His Royal Highness and his wife, Catherine, the Duchess of Cambridge. He was nominated by his home unit because of his outstanding flying and academic achievements.

Prince William specifically asked for a bilingual search and rescue pilot. As equerry, Capt Leroux accompanied the Duke and Duchess of Cambridge to every official event

throughout their tour, keeping them on time and attending to last-minute details.

"It was very helpful for me to have the same job [SAR pilot] as HRH. That made the communication flow very easily between us. For me my role as an equerry went above the basic duties because I was the closest Canadian citizen to the couple. I had the privilege of spending time with them throughout the visit. I took the responsibility of representing what Canadians are all about very seriously." 

## NEWEST HONORARY COLONELS

The following people have recently been appointed as Air Force honorary colonels by the Minister of National Defence.

- **Alex Baumann**, Olympic gold and silver medalist in the sport of swimming and CEO of Own the Podium — 412 Transport Squadron, 8 Wing Trenton, Ont.
- **Dr. Bill Leggett**, Principal of Tancho Investment Capital and a member of the board for Biodiversity Knowledge and Innovation Network — 1 Wing Kingston, Ont.
- **Michel Parent**, President and CEO of Logisco Inc. — 430 Tactical Helicopter Squadron, 1 Wing Kingston, Ont., located at Valcartier, Que.
- **Lieutenant-Colonel (ret'd) Marty Playford** — 4 Construction Engineering Squadron, 4 Wing Cold Lake, Alta.
- **Dave Bronconnier**, former Mayor of Calgary — 4 Wing Cold Lake, Alta.
- **Gilles Demers**, owner of several Quebec-based industries — 3 Wing Bagotville, Que.
- **Dominique Bouchard**, Director of Rio Tinto Steel and Titanium at Sorel, Que. — 439 Combat Support Squadron, 3 Wing Bagotville, Que. 



# KUDOS FROM THE TOP

Several members of the Air Force received high praise over the past few months, showcasing once again the pride and professionalism that are the hallmarks of service in the Canadian Forces.



Capt Stephen Brosha on the flight line at 15 Wing Moose Jaw, Sask.



Sgt André Hotton (in the background) and Sgt (then MCpl) Julien Gauthier (in the foreground) receive the Medal of Bravery from Governor General David Johnston.



Swimming was one of three areas of aerobic training on which MCpl Kelly Christensen focussed.

## Captain Stephen Brosha

"I have always thought that Canada stood for something good in the world and I wanted to play my part in that," said Captain Stephen Brosha when asked why he joined the Canadian Forces.

Capt Brosha joined the CF in 2003 and graduated from St. Thomas University, Fredericton, N.B., in 2006 with a Bachelor of Arts (Honours) in history and political science. He was working in an "on-the-job-training" position at 423 Maritime Helicopter Squadron at 12 Wing Shearwater, N.S., when he was encouraged to apply for a prestigious Rhodes Scholarship. He received his acceptance letter in the fall of 2006, completed the first phase of primary flying training and then, despite the pressures of raising a young family as well, spent the next three years at the University of Oxford as the first CF Rhodes Scholar in nearly 21 years.

As a result of his scholastic achievements and volunteer work as a first aid trainer and volunteer ambulance attendant for St. John Ambulance at home and abroad, Capt Brosha

received the Commendation Bar for the Most Venerable Order of the Hospital of St. John of Jerusalem by the Canadian High Commissioner in London.

General Walt Natynczyk, Chief of the Defence Staff, recently contacted Capt Brosha personally to congratulate him on his time at Oxford and tell him of his promotion from second lieutenant to captain.

## Sergeant Julien Gauthier, Sergeant Joseph André Hotton

Governor General David Johnston recently awarded two search and rescue technicians with the Medal of Bravery for a rescue in 2008. Sgt (then MCpl) Gauthier and Sgt Hotton rescued three people from a sinking barge off the coast of Nova Scotia. Although advised that the rescue operation should cease because of low fuel and approaching darkness, the pilot and crew opted to continue with the rescue. Both SAR techs were lowered onto the barge and hoisted the survivors to safety aboard their CH-149 Cormorant helicopter from 413 Transport and Rescue Squadron, 14 Wing Greenwood, N.S.

## Master Corporal Kelly Christensen

MCpl Kelly Christensen, an aviation technician at 442 Transport and Rescue Squadron, 19 Wing Comox, B.C., has made fitness a lifestyle; her extraordinary level of discipline and commitment garnered her the CF Physical Fitness Award for Aerobic Excellence, the highest fitness award in the CF.

Only a handful of members have ever succeeded at attaining an award at this level and MCpl Christensen is the very first woman.

Her workouts comprise three disciplines—running, swimming and cycling—and she hasn't missed a daily workout since 2004. Her level of dedication to her personal fitness has been nothing short of outstanding and she credits it for surviving ovarian and endometrial cancer 2001.

"They only gave me a 20 per cent chance of living two years," she said. "If I hadn't been in such good shape I wouldn't have been able to receive 'the most toxic chemo available'."



The memorial on display at the National Air Force Museum of Canada at 8 Wing Trenton, Ont.



The Camp Mirage memorial cairn at dawn, in its original location.

# CAMP MIRAGE MEMORIAL UNVEILED

A memorial cairn honouring fallen members of the Canadian Forces during the Afghan mission is now on permanent display at the National Air Force Museum at 8 Wing Trenton, Ont. The monument was moved from Camp Mirage when the CF's theatre support element left the United Arab Emirates in 2010.

Conceived in 2005 by Air Force personnel serving in southwest Asia and erected in 2006, it commemorates the 157 Canadians, including CF members, a diplomat and a journalist, killed since the combat mission started in 2002.

"Camp Mirage, an air mobility base, was staffed overwhelmingly by Air Force personnel, many of them from [8] Wing," said Lieutenant-General André Deschamps. "Those intense Air Force bonds are why I find it so appropriate that this memorial cairn has found its permanent Canadian home here at the National Air Force Museum at another air mobility base."

It is a three-part granite structure incorporating a brass plate for each name of the fallen and an aptly named bas-relief *Fallen*, created by Canadian artist Silvia Pecota. The bas-relief depicts a guardian angel protecting

a fallen soldier. Ms Pecota donated *Fallen*'s plaster mould and the Royal 22<sup>nd</sup> Regiment financed the casting of two bronze copies; one is affixed to the Camp Mirage monument and the other is in the International Forces chapel in Kandahar.



The monument is carefully disassembled at Camp Mirage before being shipped to Canada.

The unveiling ceremony profoundly mirrored the final parade ceremony held for the memorial at Mirage; the Canadian flag that was lowered was raised again, a handful of the hundred of poppies that adorned the bronze name plates were transported to once again adorn the cairn in Canada, and, despite the fact that it stood outdoors at Mirage and is indoors in Trenton, the

memorial itself is placed on artificial grass and stone tile to recreate how it was originally displayed.

The cairn came to Canada as part of Operation Keepsake, which ensures that mementoes, artefacts and memorials from the theatre of operations are brought back to Canada to forever be part of its history.

"It gave me a great sense of pride and respect for the fallen to be given the responsibility to disassemble that memorial and bring it back," said Warrant Officer Ed Storey, Canadian Expeditionary Forces Command war diarist and Op Keepsake member. "It's like having the weight on your shoulders of all of the family members of the fallen and you want to make sure it comes back in one piece and reassembled in an appropriate location."

The monument will be updated, if required, to reflect all fallen Canadians since the beginning of the Afghan mission.

The unveiling came just one day before the transfer of command authority ceremony that brought an end to Canada's combat mission in Afghanistan on July 7, 2011.





## IN MEMORIAM

# MASTER OF HERALDRY BRUCE BEATTY

RCAF veteran Bruce Beatty, much-loved creator of Canadian and foreign heraldic symbols such as the Order of Canada, the Medal of Bravery, the Star of Courage and the Cross of Valour, passed away on March 21 in Ottawa at 88.

Born and raised in Saskatchewan, Bruce Beatty joined the Royal Canadian Air Force in 1941 and served in Canada as an air observer. He then served for a further 29 years in the post-war air force, including a four-year tour of duty at 1 Air Division Headquarters in Metz, France.

An accomplished graphic artist, he eventually became head of the art section of the RCAF. Interested in decorations and medals since his boyhood, he devoted much of his life to the collection, study and designing of orders, medals and badges for countries, provinces, the Canadian Forces, fraternal lodges and societies, and a variety of other organizations. He also designed coats of arms for individuals, towns and cities, flags for lieutenant-governors and other projects requiring his in-depth knowledge of Canadian and foreign heraldic symbolism.

In 1966, the late Prime Minister Pearson—informed of Flight Sergeant Beatty's expertise and knowledge in the fields of heraldry and foreign and domestic orders and decorations—asked him to submit designs for the soon-to-be-established Order of Canada. His beautiful snowflake design was accepted and has remained the symbol of the Canadian honour system ever since.


After retiring from active service, Mr. Beatty joined the directorate of ceremonial at National Defence Headquarters as a graphic artist designing, among other things, badges for units of the Canadian Forces.

In 1972 Bruce Beatty joined the staff of the Chancellery of Canadian Orders and Decorations. He designed the insignia of the Order of Military Merit, the Canadian Order of Merit, the Canadian bravery decorations, the exemplary service medals, all of the miniatures and lapel badges and royal visit badges. He designed all Chancellery brochures, the scrolls presented to the recipients—on which he inscribed their names in fine calligraphy, and many other publications and devices used in the Chancellery on a daily basis.



Bruce Beatty watches the parade celebrating the Battle of Britain at the Canada Aviation and Space Museum in Ottawa in September 2006.

Present at every investiture ceremony at Government House since 1967, he was always available to give advice on the history and wearing of decorations. Over the years, Bruce Beatty accumulated an important collection of insignia from countries around the world, many of them extremely rare, as well as badges, dirks, uniform buttons, cartridge cases, old uniforms and military memorabilia in general.

Although well past retirement age, he continued his work, of incalculable importance to the development of the Canadian honours system unabated until illness forced his retirement after 70 years of service to Canada. 



## THIS YEAR'S DEMO HORNET

The 2011 CF-18 demonstration Hornet celebrates military families and the unique contributions they make to the Canadian Forces. "The effectiveness of our Air Force in continuing to stand on guard for Canadians depends on strong Air Force families," said Major-General Yvan Blondin, then-commander of 1 Canadian Air Division. "The CF-18 Demo Hornet is a tremendous platform upon which to express our commitment to, and appreciation of, our families as the team appears at events across Canada."

CPL ARTHUR ARK



CPL DARCY LEEBIVRE

## COLOURS LAID UP

Canadian Forces chaplains Maj Art Crawley (left) and Capt Allan Mills (right) place 412 Transport Squadron's retired colours inside the Hall of Colours in the National Memorial Centre in Ottawa. They now hang with other colours near the ceiling of the Hall. 412 (T) Sqn consecrated its new colours in 2006 but waited until its 70th anniversary this year to lay up its old colours. The retired colours will remain in the Hall of Colours in perpetuity.

### On the Cover

An inukshuk, photographed during Operation Nanook 2011, stands near Resolute Bay, Nunavut. Read more about the Air Force's participation in Op Nanook, the centrepiece of three major sovereignty operations conducted annually by the CF in the Arctic, in the next issue of *Crew Brief*.



PHOTO: SGT NORM MCLEAN

### READ MORE ON THE AIR FORCE WEBSITE!

Be sure to visit [www.airforce.gc.ca](http://www.airforce.gc.ca) to stay up-to-date on events in the Royal Canadian Air Force.

Each weekday new stories are posted to the site, featuring the men and women of the Royal Canadian Air Force working on behalf of all Canadians.

