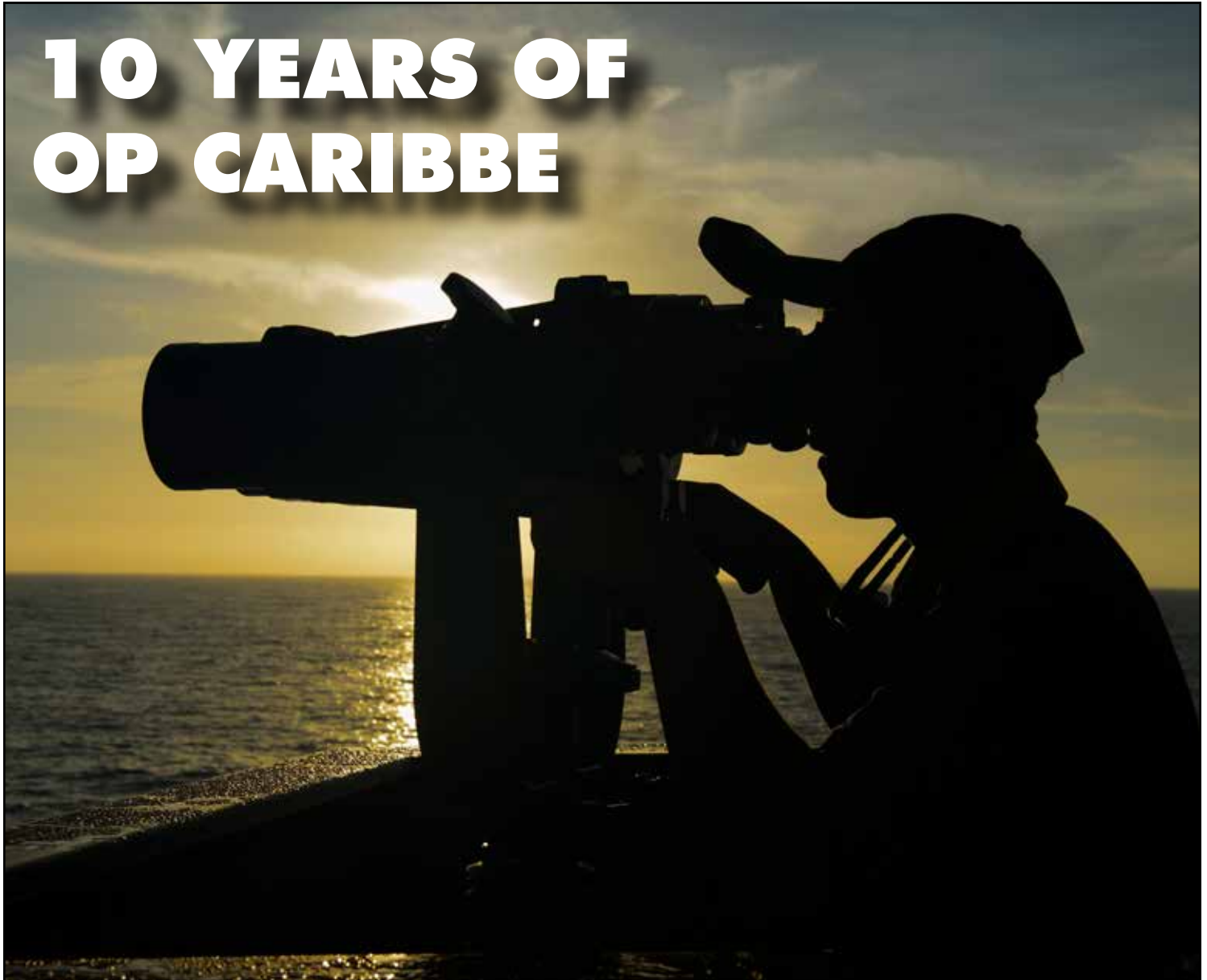


January – February 2017 • Volume 32, Issue 1

10 YEARS OF OP CARIBBE



A bridge lookout on board HMCS Edmonton uses the ship's binoculars during Operation Caribbe in the Eastern Pacific Ocean.
– Photo by MARPAC Imaging Services

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STAY UP-TO-DATE WITH THE CANADIAN ARMED FORCES APP

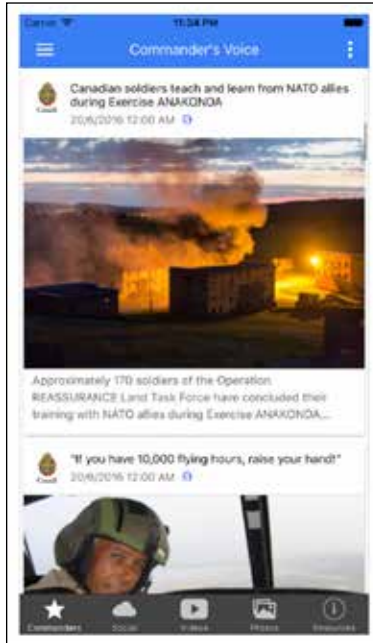
The Defence Community now has access to a variety of tools and services through the Canadian Armed Forces Mobile Application (CAF Mobile App).

The app delivers the latest useful, unclassified information about Defence directly from the CDS and his command team.

The app makes it easy to stay current on the latest social media posts including Facebook, Twitter and YouTube. You can tailor it to your needs so you always know what is going on.

The app is available for free for iOS, Android, and BlackBerry.

- get updates from CAF leadership
- access and customize your CAF social media feed
- view latest videos and images
- access a variety of CAF resources, including:
 - o Health Services
 - o Pension



- o Bases and wings
- o Compensation and benefits
- o Education and training
- o Family resources
- o Legal services
- o Morale and welfare services
- o OUTCAN
- o Veteran's Affairs



Contributor David Freeman snapped this photo of HMS Victory on a recent visit to Portsmouth, England. The ship's masts were removed in 2011 as the National Museum of the Royal Navy worked to save the vessel. Victory is currently buckling under its own weight with the upper deck slowly dropping toward the keel at a rate of half a centimetre per year. It needs more than 100 supports to keep it from collapsing. The ship was commissioned in 1765 and was used by the Royal Navy until 1922 when it was placed permanently into dry dock. In 2012, the National Museum of the Royal Navy took over custodianship of the historic vessel.

CALL FOR SUBMISSIONS

If any of you have a story to tell or an article to share with your fellow readers, please send it along to leadandlineditor@gmail.com for inclusion in our newsletter.

We want to hear from you!

MEMBERSHIP RENEWAL TIME

Thanks to those who have sent in your NAC-VI 2017 membership renewal and donations to the Endowment Fund and the Navy League.

If you have not yet renewed, use the quick and easy online renewal at www.nac-vi.ca. Go to "Membership" and select "Membership Sign Up". When you complete the form, the site will identify you as a member given information already in the database. The online payment process is simple and secure. Alternatively, you can mail in a cheque. Printable membership forms are available on the website under "Membership".

The opportunity to donate online to one of the groups we support is still an option, but is not completed as a part of the online renewal form. Instead, click on the donate button and again follow the prompts.

Any questions, please call the Membership Director, Stan Brygadyr, at 250-727-2243.

ACCESS DOCUMENTS ONLINE

We now have a members' section on our website, www.nac-vi.ca, where you can log in and access documents posted for members.

Currently, we have updates on our constitution/by-laws and we will soon be posting minutes of executive meetings.

This is a work in progress as we attempt to bring more information forward to you. When you are on the site, go to "Membership", then "Member LogIn". This will take you to a page where you will be asked for your username. Please contact Bill Macdonald at becalmed1@shaw.ca for login information. Under Membership, click "Members Page" to access links to the final drafts of the new Constitution and Bylaws.

LT GRAY MONUMENT PROPOSED FOR ESQUIMALT

A local monument has been proposed to honour Second World War pilot Lieutenant Robert Hampton Gray, Canada's last Victoria Cross Recipient.

On Aug. 9, 1945, at Onagawa Bay, Japan, Lt Gray led an attack by eight Corsair aircraft on a group of Japanese naval vessels. He sank the destroyer Amakusa, but the gunners hit his aircraft and he crashed into the bay. He was posthumously awarded the Victoria Cross (VC).

A monument to Lt Gray already exists in Onagawa, Japan. It was established in 1989 and several Canadian naval ships have visited the site to remember his sacrifice.

Although there are schools named after him and his photo hangs with other VC winners in the Legislature, there is no actual monument here in Canada for Lt Gray.

Former navy man and prominent Esquimalt citizen Joe Buczkowski has initiated a project to have a pillow monument placed locally and is seeking approval from the Township of Esquimalt

LT GRAY'S VC CITATION

The KING has been graciously pleased to approve the award of the VICTORIA CROSS for valour to: the late Temporary Lieutenant Robert Hampton GRAY, R.C.N.V.R.,

for great valour in leading an attack on a Japanese destroyer in Onagawa Wan, on 9 August 1945. In the face of fire from shore batteries and a heavy concentration of fire from some five warships Lieutenant Gray pressed home his attack, flying very low in order to ensure success, and, although he was hit and his aircraft was in flames, he obtained at least one direct hit, sinking the destroyer. Lieutenant Gray has consistently shown a brilliant fighting spirit and most inspiring leadership.

to place the monument in Esquimalt's Memorial Park.

The Naval Association of Canada has authorized a grant of \$2,500 dollars towards the projected \$3,500 cost. Recognizing the Lt Gray monument project falls under a specific aspect of the purpose of the Naval Association of Canada's (NAC's) Endowment Fund, namely "Remembering the Past" through naval monuments.

It won't likely be difficult to get Esquimalt's approval for the project. Before the 2011 tsunami struck Japan, the township had proposed twinning with Onagawa. After the town was devastated by the tsunami both Esquimalt and NOAVI were involved in raising funds to help the town recover. However, there is a process for Esquimalt Council to follow and NAC VI is asking both naval authorities and local civic organizations in Esquimalt to register their support with the township.

There will be more details to come as fundraising efforts are established. If you wish to assist with fundraising for this project, please contact Terry Milne at 250-477-5045.

NEW LOCATION!

UPCOMING LUNCHEONS

January 26th Denton Pendergast will give a presentation on the History of Victoria's Harbour including its connection with our navy. He will also introduce the new interactive website that explores this topic. This event will also be a Special General Meeting to approve our updated bylaws.

February 23 LCol Shawn Williamson, Commanding Officer of 443 Squadron in Patricia Bay, will talk about the squadron's new facility as well as the new helicopters it will house. This will be in advance of a tour of the facility scheduled for a few days later.

Both luncheons will be held at the **Royal Victoria Yacht Club, 3475 Ripon Road** (Cadboro Bay) starting at 11:30 a.m. Lunch will be served at 12:15 p.m. Members are asked to confirm their attendance with Peter Bey, 250-652-2225.



Crewmembers hand along the final pennant during the Paying-off Ceremony of HMCS Preserver at CFB Halifax dockyard.

46-YEAR-OLD PRESERVER PAID OFF

Current and former sailors said goodbye to auxiliary oiler replenishment ship *HMCS Preserver* after nearly five decades of service on Oct. 21, 2016.

Preserver was honoured with a sail past from *HMCS Ville de Québec* and the ceremonial passing of the commissioning pennant along the deck. As the crew, followed by their Commanding Officer, marched off the ship, the commissioning pennant, jack and ensign were present-

ed to LCdr Marier, who then presented them to RAdm Newton. With the paying off official, the crew marched past the Maritime Forces Atlantic Honour Guard and down the jetty to loud cheers from all those in attendance.

Preserver followed its sister ship, *Pro-tecteur*, which was paid off in May 2015.

Preserver was commissioned in Saint John, N.B., on Aug. 7, 1970. It was an example of cutting-edge technology for

underway replenishment.

In the years that followed, its many missions around the world included:

- UN peacekeeping efforts in Cyprus
- Enforcing sanctions in the former Yugoslavia in 1994
- The response to the crash of Swissair Flight 111 in 1998 off Peggy's Cove
- Operation Apollo in 2001, in support of American operations in Afghanistan



ABOVE: Spectators arrive at the Paying-off Ceremony.
LEFT: Commanding Officer Lieutenant-Commander Vickey Marier, returns the colours and naval jack to Rear-Admiral John Newton, concluding the Paying-off Ceremony.

– Photos by Corporal J.W.S. Houck, Formation Imaging Services

ANOTHER FIRST FOR THE CYCLONE HELICOPTER

By Captain Peter Ryan
12 Wing Shearwater

A CH148 Cyclone helicopter from 12 Wing Shearwater, N.S., recently conducted its first anti-submarine warfare (ASW) events with *HMCS Windsor* off the coast of Nova Scotia.

The exercise was linked to an ongoing Operational Test and Evaluation being conducted by the Helicopter Test and Evaluation Facility (HOTEF) at 12 Wing Shearwater.

Anti-submarine warfare is a component of underwater warfare that employs surface warships, aircraft and other submarines to find, track, and deter, damage or destroy enemy submarines. This was the first time a Cyclone has engaged in such activity, representing an important milestone in the evolution of this new aircraft, which provides wings for the fleet and state-of-the-art air power for the Royal Canadian Air Force.

According to Major Erik Weigelin, a pilot with Helicopter Test and Evaluation

Facility, the Cyclone's sonobuoy processing system was tested to detect and track *Windsor* using passive sonobuoys.

"This system allows us to track submarines without making any active noise, thereby denying the submarine knowledge of the helicopter's location or potentially even the fact that they are being tracked at all. Anti-submarine warfare by use of sonobuoys can be challenging, but having *Windsor* as a target allowed the crews to hone our equipment and develop a solid baseline of performance for the tracking of real submarine targets," said Maj Weigelin.

When *Windsor* was otherwise tasked, CH148 crews employed Expendable Mobile Anti-submarine warfare Training Targets to simulate submarine movements and noise patterns, which allowed Helicopter Test and Evaluation Facility crews to further develop those tactical procedures that will be used by operational crews following CH148 Release to Service.

"Accurate and effective initial equip-

ment settings, in combination with clear, concise and easily repeatable procedures, is key to maximizing the crews' effectiveness in challenging tactical situations," said Maj Weigelin. "These procedures need to be trained and practised to ensure peak operational capability of front-line crews once they are deployed with the Cyclone."

During their week at sea, CH148 crews conducted 16 hours of embarked Operational Test and Evaluation with *HMCS Montréal*, the first ship to support a Helicopter Test and Evaluation Facility Detachment. The purpose of ongoing Operational Test and Evaluation is to continue to assess the aircraft's combat effectiveness, develop tactical procedures, and validate doctrine before the new maritime helicopter can be turned over to front-line squadrons.

A CH148 progressed planned Operational Test and Evaluation by participating in combined warfare exercises in the Atlantic Ocean from late October to mid-November.

CYCLONE STATS

Weight: 29,300 lbs
Fuselage width
(W/Stabilator): 12' 9"
(17' 3")
Height: 18' 4"
Fuselage length: 56' 2"



HMCS MONTRÉAL DEBUTS AS X-SHIP

By Darlene Blakeley
Navy Public Affairs Ottawa

HMCS *Montréal* recently embarked on its first deployment as the Royal Canadian Navy's (RCN) experimental ship.

The modernized Halifax-class frigate deployed Oct. 24, 2016 with a full schedule of missions including combat enhancement training, crew trials and operational testing and evaluation of the new Cyclone shipborne helicopter.

The experimental ship – or X-Ship – program is designed to advance innovative and leading-edge naval concepts in all areas of warship deployment, crewing and sustainment. Many of the trials conducted focused on human factors such as variations of crew size and impacts on crew rest and performance, as well as some operational trials.

“We have been given the extremely important mission of setting the course for the future fleet in manning, innovation and air operations,” said Commander Chris Sherban in advance of the mission.

For the sea portion of the X-Ship program, *Montréal* transited south with the rest of the Canadian Task Group – *HMC Ships Fredericton, St. John's and Athabaskan* – along with Spanish Navy replenishment oiler ship *Patino*, conducting force generation and force development work.

According to Cdr Sherban, the first part of this trial was called the SCORE 217 trial, which will be used to validate a crewing model used by defence research scientists in Toronto.

This evaluation required the X-Ship to conduct a modified work-ups scenario with its full crew of 217. The scenario was specifically developed by the Directorate of Naval Personnel and Training in Ottawa with experts from Sea Training (Pacific). Outside of the evolutions in the scenario, the crew was asked to conduct watches, departmental work (including



The Canadian Task Group, supported by Spanish Navy replenishment oiler ship *Patino* (centre), conducts at-sea operations as part of Spartan Warrior 2016 off the east coast of North America this fall.

maintenance), meetings, fitness, meals, and so on, in accordance with their regular shipboard routine.

The crew filled out daily questionnaires on their activities and wore actigraphs (sensors that measure activity) to monitor work/rest balance. The intent is to confirm that estimates made with respect to the time needed to complete evolutions and the time available for activities other than watches and evolutions is consistent with reality. This data will enable improvements to be made to the SCORE model and provide greater confidence in crew requirements for future platforms.

“The crew is very excited that their efforts will directly influence the structure and shape of the future fleet,” said Cdr Sherban. “As an example, defence scientists hoped that we would have 150 officers and sailors willing to conduct sleep and fatigue studies. We had 178 sailors volunteer.”

Although *Montréal* has a dedicated trial program, it was not completely removed from everyday naval require-

ments and continued to participate in scheduled engineering repair, docking work periods and fleet training exercises. The ship increased its operational readiness with other RCN ships, as well as USN ships and *Patino* during Exercise Spartan Warrior 16 in November.

“I have been blessed with an amazing bunch of young, dedicated and thoroughly professional men and women who understand how important our mission is and are equally as passionate as I to achieve mission success,” says Cdr Sherban. “The success of the X-Ship program rests on their shoulders and I could not have asked for a better crew to achieve it.”

After this deployment, *Montréal* entered a work period that ends early this month, after which it will return to sea in support of the Cyclone project. “We will be searching for the worst weather in the North Atlantic so that we can test the operating limits of the helicopter,” Cdr Sherban says.

Montréal is expected to continue trials as part of the RCN's experimental program for five years.

SUBMARINERS INVITED TO COMMEMORATIVE DINNER

The 50th anniversary of the commissioning of *HMCS Onondaga* will occur in 2017. To commemorate this event, the Submariners' Association of Canada (West) plans to hold a formal dinner with partners on June 22, 2017 in Victoria.

At this time, the association wishes to get an indication of how many people plan to attend. Once we get this information, organizers can arrange a venue and obtain costs. It is requested that those who plan to attend email their intentions by the end of 2016 to Lloyd Barnes, lw-barnes@shaw.ca.



Honorary Captain (Navy) Mandy Farmer during Base Divisions.

ACCENT INNS CEO NAMED HONORARY CAPTAIN

Third generation Victoria resident and prominent local business person, Mandy Farmer, has been named CFB Esquimalt's newest Honorary Captain (Navy).

HCapt(N) Farmer took over the role, which was vacated by Cedric Steele, this fall during a Base Divisions ceremony at the Naden Drill Shed.

HCapt(N) Farmer has been the CEO of Accent Inns since 2008. In recent years, the company opened the retro-themed Hotel Zed in Victoria and Kelowna and was named the sixth best employer in B.C. in 2011.

HCapt(N) Farmer was ranked No. 25 in Profit Magazine's annual list of Canada's Top 100 Women Entrepreneurs and was a finalist in Ernst and Young's Entrepreneur of the Year Award.

Though she readily admits to knowing very little about the local military before her appointment, HCapt(N) Farmer has some affiliation with the military in her family. Two of her great uncles served in the RCN – her Uncle Hugh Neuman was a Merchant Marine during the Second World War while her Uncle Hugh Gunning patrolled the North Atlantic during the same period. Her Great Grandfather Harry Farmer served in the First World War with the United States Army.

RCN MOURNS THE LOSS OF SAILOR IN ACCIDENT AT 443 SQN

Master Seaman (MS) Guillermo Morales Castellon passed away Nov. 25 from injuries sustained on Nov. 21 in an industrial accident at 443 Maritime Helicopter Squadron.

The Canadian Forces National Investigation Service (CFNIS) will conduct an investigation into the accident with support from Formation Safety. Further, a Board of Inquiry will be convened into the circumstances surrounding MS Castellon's death.

MS Castellon joined the Army Reserve, 2nd Field Artillery Regiment, Royal Canadian Artillery, in 1995 and transferred to the Naval Reserve, HMCS Donnacona, in 1998.

In 2014, he accepted a transfer to the Regular Force where he was posted to CFB Esquimalt Base Logistics. MS Castellon served as part of the Patricia Bay Supply Team supporting 443 Squadron.



HMCS Vancouver returned home to CFB Esquimalt on Dec. 14, 2016 after a six-month deployment. – Photo by MCpl Brent Kenny, MARPAC Imaging Services

HMCS VANCOUVER RETURNS HOME

After six months at sea, *HMCS Vancouver* sailors returned home to family and friends last month.

The ship's company was greeted by a cheering crowd of 250 who held welcome home banners high.

"There is no better time than when a ship comes alongside after a long deployment and this moment is just perfect for the [holiday] season," remarked Rear-Admiral (RAdm) Art McDonald as he stood on the jetty beside Lieutenant Governor of B.C. Judith Guichon moments before the sailors disembarked.

"When I look around and see all the families and sailors who have made big sacrifices and they are reunited, it warms my heart."

Since departing Esquimalt in June, *Vancouver* operated extensively in the Pacific region and participated in a va-



HMCS Vancouver contributed to emergency relief operations following an earthquake in Kaikoura, New Zealand. – Photos by LS Sergej Krivenko



riety of training exercises including the world's largest international military exercise, Rim of the Pacific (RIMPAC); KAKADU, a joint biennial exercise hosted by the Royal Australian Navy involving 20 nations; and WESTPLOY 16, a deployment aimed at building ties with Asia-Pacific nations. *Vancouver* was also involved in relief efforts after a 7.8 magnitude earthquake struck New Zealand's South Island on Nov. 14

Vancouver's return was its second homecoming for 2016 and brought the total deployment time this year to nine months. The ship was away from home for an additional three months earlier this year between February and April as it participated in SOUTHPLY, a training exercise aimed at strengthening ties with several South American nations including Peru and Chile.

MILITARY CHILDREN'S HEALTH FOCUS OF STUDY

Queen's University is looking for military families, educators and health care providers to take part in a study on the mental health of children in military families.

Dr. Heidi Cramm initiated the study after finding that very little information exists about the effects of the Canadian military lifestyle on children.

As an occupational therapist, Dr. Cramm noticed that a disproportionate number of the children she was seeing were from military families. She searched for answers as to why, but found very little.

"There wasn't any research that I could look at that could tell me about Canadian military families and their health," says Dr. Cramm.

While plenty of information has been gathered and analysed for their American counterparts, very little is known about the mental health of Canadian military families.

"Almost all the information we have available is based out of the U.S. – like 98 per cent of it," says Dr. Cramm.

The reason may be the difficulty in gathering information, she says. The American military health system treats the entire family so the data is all in one central place. In Canada, only the military member is treated within the military system. The family falls under provincial care. So mental health issues that arise in a military member's children cannot easily be tied to a posting, a deployment or any other military activity.

Dr. Cramm says military families face a formidable trifecta: mobility, risk and separation. Families can be frequently posted, the member's job can be dangerous, and one or both parents may be gone frequently and/or for long periods.

These three aspects of military life are incredibly stressful and need to be managed carefully, she says.

As very little has been done on this topic in Canada, Dr. Cramm believes her work will form a base for future research.

"This becomes a formative piece of research in that it'll be one of the first Canadian studies to look at military family health, especially that of children," she says.

The study is currently in the interview phase. Participants from across the country are interviewed over the phone to collect an initial set of data for analysis. Once that is complete—in about six months—Dr. Cramm and her team will travel across the country to meet with focus groups to see if they can validate their findings.

Military families interested in participating in the study should contact Dr. Cramm at heidi.cramm@queensu.ca or 613-533-6094. She is particularly in need of the perspective of teenaged children.

All participants will have their name put in a draw to win an iPad.

SUMMARY OF CANADA'S MILITARY MISSIONS

Operation IMPACT

Op IMPACT is the CAF's contribution to the multinational Coalition to dismantle and ultimately defeat Daesh. The CAF conduct air operations, provide advice and assistance to the Iraqi security forces, and provide capacity building capabilities to the regional forces.

In coordination with Coalition forces, CANSOFCOM advisors assist Iraqi security forces in planning defensive and offensive operations, and developing their military skills. They are not part of a ground combat mission.

Operation REASSURANCE

Op REASSURANCE refers to the CAF's activities in support of NATO's assurance and deterrence measures.

The most recent naval activity involved *HMCS Charlottetown* participating in the Greek-led Ex Naias from Dec. 12 to 16. This maritime exercise focused on response to

an international crisis situation to address both symmetric and asymmetric threats.

As part of NATO's enhanced Forward Presence, Canada, a Framework Nation, will be responsible for establishing and leading a combat capable rotational multinational NATO battlegroup in Latvia in 2017.

Operation UNIFIER

Op UNIFIER is Canada's contribution to support Ukraine in its efforts to maintain sovereignty, security, and stability through capacity building and training Ukraine forces' personnel.

Since the start of the training in September 2015, more than 2,600 Ukrainian Armed Forces members have been trained by the CAF.

Operation PALACI

Op PALACI is the CAF's contribution to Parks Canada's avalanche-control program in Rogers Pass where the Trans-Canada

Highway and the Canadian Pacific Railway cross the Selkirk Mountains in B.C. The CAF has supported Parks Canada in this endeavour for more than 50 years.

From late November to April, an artillery task force is deployed with 105-mm howitzers modified for precision firing from roadside gun platforms.

Search and Rescue

The Canadian Search and Rescue (SAR) program is based on cooperation and teamwork between the Royal Canadian Air Force, the Canadian Coast Guard and the network of Federal, Provincial/Territorial governments, civilian organizations and volunteers, and various and police forces.

As of Dec. 11, the three Joint Rescue Coordination Centres have tasked CAF assets 1,056 times to conduct SAR operations this year: 200 taskings from Victoria, 461 taskings from Trenton, and 395 taskings from Halifax.

AUTONOMOUS UNDERWATER MINE DETECTION

The area surrounding Scotland's Isle of Skye was speckled with ships, and unmanned vehicles in the sky, on the ocean's surface and below it, all working together to detect and neutralize a minefield on the seafloor.

This was Exercise Unmanned Warrior 2016 led by the United Kingdom's Royal Navy at the British Underwater Test and Evaluation Centre in Scotland; one of the largest demonstrations of unmanned vehicles ever.

The Hell Bay portion of the exercise was led by The Technical Cooperation Program (TTCP) Mine Warfare Technical Panel. TTCP is an international organization that collaborates in defence, scientific and technical information exchange and shared research activities for five nations: Australia, Canada, New Zealand, the United Kingdom (UK) and the United States (US). Four of the nations participated this year. This was the fourth and final trial in the Hell Bay series, all of which focused on unmanned vehicles used in mine counter-measures.

This year's experiment explored, among other objectives, networking unmanned vehicles both below and on the water's surface to detect and neutralize an underwater minefield.

Defence Research and Development Canada's (DRDC) team brought three vehicles: two unmanned underwater vehicles (UUV) called IVER3 UUV, and one surface vehicle called the USV-2600. Both underwater vehicles, which are torpedo-shaped free-swimming underwater robots, have side-scan sonars. The side-scan sonars use acoustic waves to take images of the seafloor, like an underwater camera, to look for underwater mines. The surface vehicle is able to communicate with the submerged vehicles to relay their detection information above-water to a circling unmanned aerial vehicle. The aerial vehicle can further relay the underwater vehicle's detection information over



Defence Research and Development Canada's unmanned surface vehicle USV-2600 performs an autonomous mission in the water at Loch Alsh. – Photo by Janice Lang, DRDC

to a command and control centre on the shore. Working together, the aerial and surface vehicle allows the underwater vehicles to stay submerged and not have to surface to share their detection information.

This capability was demonstrated with seven unmanned underwater vehicles, two unmanned surface vehicles, and one unmanned aerial vehicle in collaboration between Canada, the UK and the US.

One of the goals of the exercise was to test the interoperability between the vehicles brought to the trial by allied partners. Testing included communications between unmanned vehicles, transmitting sonar images from underwater to above water, automatic target recognition of mine-like targets, and unmanned vehicles adapting to the actions of other unmanned vehicles.

“Our unmanned vehicles were able to interoperate with those from allied nations. The implication for the navies is that it is possible to network unmanned vehicles towards achieving a timely mission goal and to transmit the information from the underwater sensors to those

who make the decisions,” said Dr. Mae Seto who was Canada's lead scientist for the Hell Bay component.

DRDC's participation in the exercise helps inform eventual decisions on procurement, training, concepts of operation, and the way-ahead for the role of unmanned vehicles, explains Dr. Seto.

“Ex Unmanned Warrior was an ideal opportunity for our sailors and research teams to work together with allied forces. Exercises like these prepare us to better implement these technologies on our own or with our allies during operations,” said Lieutenant-Commander David Botting, the Director of Naval Requirements for Naval Mine Warfare.

Unmanned underwater vehicles can be used not only to detect mines but in several other ways such as for underwater surveys to generate maps of our waterways that guide vessels to travel on a clear and safe path.

The Hell Bay experiment at the heart of Exercise Unmanned Warrior is part of DRDC's current Naval Mine Counter-Measures Project, which is coming to a close in 2017.

NAVY WRAPS FRIGATE LIFE EXTENSION PROJECT

As *HMCS Toronto* returned to the Royal Canadian Navy (RCN) Nov. 29, it marked the completion of the Halifax-class Modernization/Frigate Life Extension project.

A ceremony was held at Irving Shipbuilding Halifax shipyards, where leaders involved with the project, including VAdm Ron Lloyd, Commander RCN, gathered to mark the occasion and spread the good news that the project had been completed on budget and on time.

The HCM project had a budget of \$4.3 billion, and while final total costs aren't available, ADM(Materiel) Pat Finn said a portion of that budget is already being returned.

The HCM/FELEX project began more than a decade ago and involved a refit of all 12 Halifax-class frigates and the installation of modern equipment. The process involved Irving Shipbuilding on the East Coast, Seaspan Shipyards on the West Coast, Lockheed Martin Canada, and more than 30 other firms working with the Government of Canada.

The modernized frigates have been fitted with enhanced radar and electronic warfare systems, upgraded communications, and missiles that integrate with a new combat management system.

"We basically changed out two brains of the ship," VAdm Lloyd explained. "The Combat Management System, the manner in which you fight with the ship, is completely new, and then the Integrated Platform Management System, which looks after the propulsion and other maritime engineering aspects, is also brand new and state-of-the-art."



FIRST RCN VISIT TO CUBA IN 50 YEARS

HMCS Fredericton visited Havana, Cuba, in November making it the first Royal Canadian Navy ship to visit in more than 50 years.

Fredericton visited the ports of Havana, Cuba; Cartagena, Colombia; and Veracruz, Mexico, to enhance mutual understanding, cooperation, and capacity with partners in the region.

The deployment aimed to strengthen existing defence partnerships and establish new bi-national and multinational relations in order to achieve greater interoperability and enhanced delivery of defence capabilities for future operations.

LGEN WHITECROSS ASSUMES COMMAND OF NATO DEFENSE COLLEGE

Lieutenant-General Christine Whitecross has assumed command of the North Atlantic Treaty Organization (NATO) Defense College in Rome, taking over from Major-General Janusz Bojarski of the Polish Air Force.

LGen Whitecross is the third Canadian and the first female to take on the command of the college in its 65-year history.

In this capacity, LGen Whitecross can continue her life's passion of making the defence community a more respectful and inclusive environment. Since June 2015, she has been the commander of the Military Personnel Command, the Canadian Armed Forces organization responsible for



personnel management, including training and education. As such, she

has a significant appreciation of the value of professional development for leaders in Canada, within the NATO Alliance and in the global community.

The NATO Defense College is renowned for training senior officers from the 28 allied nations in strategic planning for multi-national operations such as those NATO undertakes. Officers learn valuable lessons and gain critical skills in multi-nation planning, consensus building, and strategic level problem-solving. In this context, Canadian officers are widely respected and sought-after and come to the learning environment with field experience acquired through NATO operations.

CANADA ASSUMES COMMAND OF COMBINED TASK FORCE 150

Commodore Haydn C. Edmundson of the Canadian Armed Forces (CAF) officially assumed command of Combined Task Force 150 (CTF 150) on behalf of Canada during a change of command ceremony held at Combined Maritime Forces (CMF) Headquarters in Bahrain in early December.

Cmdre Edmundson took over command from Cmdre Bilal Abdul Nasir of the Pakistan Navy.

“I am honoured and privileged to command this counter terrorism task force and to work alongside our maritime security partners in the wider region over the next four months,” said Cmdre Edmundson. “Combined Task Force 150 will continue to build upon the achievements of our colleagues before us and we will continue to promote security and stability across some of the world’s busiest and most important shipping lanes.”

The deployment is part of Operation Artemis, the CAF’s ongoing contribution to counter-terrorism and maritime security operations across the Red Sea, Gulf of Aden, Arabian Sea, and Gulf of Oman. Through maritime security operations, regional engagements, and capacity building, CTF 150 works to deter and deny terrorist organizations from using the high seas for smuggling weapons, illicit cargo and narcotics, while ensuring the safe passage of merchant ships in some of the



Commodore Bilal Abdul Nasir, Pakistan Navy (left) hands over command of Combined Task Force 150 (CTF 150) to Commodore Haydn C. Edmundson, Royal Canadian Navy (right) while Vice Admiral Kevin M. Donegan, Commander, U.S. Naval Forces Central Command, U.S. 5th Fleet, Combined Maritime Forces (centre) presides on Dec. 8, 2016 at Naval Support Activity, Manama, Bahrain.

busiest shipping lanes in the world.

Canada has deployed 28 CAF personnel and two Department of National Defence civilian employees to lead CTF 150 until April 2017.

The Canadian command contingent is supported by personnel of the Royal Australian Navy. The combined nature of this team demonstrates the close relationship between Australia and Canada as well as our shared values and interests.

CTF 150 is one of three multinational naval task forces operated by Combined Maritime Forces.



Members of HMCS Regina’s boarding party board a dhow for inspection during Operation Artemis in 2012. – Photo by Cpl Rick Ayer, Formation Imaging Services, Halifax



CANADA MARKS 10 YEARS OF OP CARIBBE

HMCS Edmonton and United States Coast Guard Cutter Hamilton sail in the eastern Pacific Ocean during Operation CARIBBE on November 20, 2016. – Photo by MARPAC Imaging Services

On Dec. 10, the Canadian Armed Forces (CAF) marked its 10th year of Operation CARIBBE. Since 2006, the Royal Canadian Navy and the Royal Canadian Air Force have supported the seizure or disruption of more than 66 metric tonnes of cocaine and just under 4 metric tonnes of marijuana.

In 2016 alone, CAF assets and personnel directly contributed to the

seizure or disruption of approximately 5,750 kg of cocaine and 1,520 kg of marijuana.

During the 10 years of Operation CARIBBE, the Royal Canadian Navy deployed ships and submarines 63 times and sailed for a total of 1,881 days in direct support of the mission, each time working closely with the United States Coast Guard, the United

States Navy and other allied warships and aircraft.

Operation CARIBBE is Canada's participation in Operation Martillo, a U.S. Joint Interagency Task Force South-led multinational effort among Western hemisphere and European nations to prevent illicit trafficking in the Caribbean Sea, the Eastern Pacific Ocean, and off the coast of Central America.

IN BRIEF

US NAVY PLANS TO EXPAND ITS FLEET TO 355 VESSELS

The US Navy (USN) recently released its Force Structure Assessment (FSA), calling for expanding the fleet to 355 ships from the current total of 308, suggesting that the fleet detailed will be sufficient to cover US strategic interests with a "reasonable" likelihood of success. The increase of 47 vessels would primarily be spread among large combatants, including 18 attack submarines, 16 cruisers and destroyers, and one additional aircraft carrier.

The drive to expand the USN is said to be motivated both by developments within foreign navies, including the Chinese People's Liberation Army Navy and the Russian Federation Navy, as well as domestic politics, as the incoming Trump administration has called for a larger Navy.

CHINA HOLDS FIRST LIVE-FIRE DRILLS WITH AIRCRAFT CARRIER, WARSHIPS

The People's Liberation Army Navy (PLAN) conducted its first-ever live-fire carrier battle group drill last week in the Bohai Sea, near South Korea.

The group included the PLAN's first aircraft carrier, Liaoning, and nine other vessels, which practiced aerial interception, anti-air, anti-missile, and anti-ship skills, including firing live missiles at a target at sea.

The drills come amid heightened tensions with Taiwan, as recently-elected Taiwanese President Tsai Ing-wen has been circumspect on the issue of independence, and following US President-elect Donald Trump's call with Tsai earlier this month, after which he suggested he would renegotiate the "One China" policy.

China is steadily building carrier operation expertise as it is constructing at least two other aircraft carriers, which are predicted to be operational around 2020.

CONTRACT AWARDED FOR NEW FIXED-WING SEARCH AND RESCUE AIRCRAFT

The Royal Canadian Air Force's fixed-wing search and rescue (FWSAR) fleets of CC-115 Buffalo and legacy CC-130H Hercules aircraft will be replaced by the C295W aircraft, manufactured by Airbus Defence and Space.

The announcement was made Dec. 8 at 8 Wing Trenton, Ontario.

The Government of Canada awarded a contract to Airbus Defence and Space, which has partnered with Newfoundland-based PAL Aerospace for maintenance and support services. The contract will provide a complete, modern and technologically advanced search and rescue solution, including maintenance and support services up to 2043.

"Members of the Royal Canadian Air Force search and rescue community are among the best trained in the world and respond to incidents in every type of environment, whether in the Arctic, over the Rockies or in the middle of the ocean," said Defence Minister Harjit Sajjan. "Canadians in distress can count on them to give their very best to save lives. With this technology, we are giving our women and men in uniform the tools they need to continue to deliver effective and essential search and rescue operations."

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Airbus will provide 16 C295W aircraft to support Canada's search and rescue operations, construct a new simulator-equipped training centre in Comox, B.C., and provide ongoing maintenance and



support services.

The new aircraft will include state-of-the-art communications systems that will allow search and rescue personnel to share real-time information with partners on the ground. Using integrated sensors, crews will be able to locate persons or objects, such as downed aircraft, from more than 40 kilometres away, even in low-light conditions.

The RCAF's current CC-115 Buffalo and CC-130H Hercules have served Canada well over the last 20 to 40 years. These aircraft perform more than 350 missions annually and are responsible for saving thousands of Canadian lives every year. During the transition, the existing fleets will continue to be maintained and operated to ensure search and rescue responsibilities.

The initial contract, for a period of 11 years, is valued at \$2.4 billion (plus applicable taxes) and includes six years of acquisition and set up, including the construction of a new training centre in Comox, B.C., as well as the first five years of maintenance and support services.



The C295W aircraft (top) will replace the CC-115 Buffalo (middle) and CC-130H Hercules (below) as Canada's fixed-wing search and rescue aircraft.



B.C. LAUNCHES MEMORIAL CROSS LICENCE PLATES

By Capt Graeme Kaine
39 CBG Public Affairs

There is no fee for this special licence plate and Memorial Cross plates are only available to official Memorial Cross recipients. Memorial Cross eligibility is determined by the Department of National Defence and Veterans Affairs Canada.

Recipients of the Memorial Cross who live in British Columbia now have a new commemorative licence plate.

At a ceremony, held at the Beatty Street Drill Hall in Vancouver on Nov. 10, Ron McCully was the first Memorial Cross recipient to receive the special plate.

“This new licence plate is meaningful for my family, as this pays tribute to my son, Corporal Matthew McCully,” said McCully. “Thank you to the B.C. government and ICBC for developing and producing this new licence plate for those of us who have lost a loved one in the line of duty.”

The Memorial Cross is an award that has been granted since 1919 to loved ones of Canadian Armed Forces (CAF) personnel who have died in service or whose death was attributed to their service. It is granted by the Government of Canada and is often referred to as the Silver Cross. In the past, it had only been given to mothers and widows, but recent changes now allow CAF personnel to designate up to three Memorial Cross recipients.

Besides British Columbia, Saskatchewan is the only other province that currently offers a Memorial Cross plate.

The licence plate features purple letters on a white background, with the Memorial Cross symbol on the left and the Canadian flag on the right. Both front and rear plates will be issued and both must be affixed to the vehicle.

There will be an additional option of a keepsake plate for Memorial Cross recipients who want to receive a plate, but not display it on their vehicle.

Official Memorial Cross recipients may request a B.C. Memorial Cross licence plate by contacting ICBC headquarters at 604-982-6467 or they can visit the website: www.icbc.com/vehicle-registration/licence-plates/Pages/memorial-cross-plates.aspx.



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COMMANDER PREPARING FOR ARCTIC SHIP

Darlene Blakeley
Navy Public Affairs Ottawa

The commanding officer of the Royal Canadian Navy's (RCN) first Arctic Offshore Patrol Vessel has already been chosen, and work has begun to ensure everything is ready when *HMCS Harry DeWolf* is delivered in 2018.

Lieutenant-Commander Corey Gleason, along with a small preliminary crew, are preparing for the new vessel, one of six ice-capable offshore patrol ships that will conduct sovereignty and surveillance operations in Canada's ocean areas of interest, including in the Arctic.

"It's truly exciting to have this role as first commanding officer," says LCdr Gleason. "The first ship in its class is always a lot of work and there's a long road ahead – about five years between shore office work and the first operational cruise for the lead ship. We get the opportunity to pave the way for everyone else."

This is essential work as the navy prepares for a busy future in Canada's North, according to Rear-Admiral John Newton, Commander Maritime Forces Atlantic.

"We take note of the significant changes being felt in the environment, industry, commerce, tourism, society and culture. It is a timely development that the RCN will soon take delivery of the first Arctic Offshore Patrol Vessel."

He adds that the pending arrival of these vessels inspires the RCN to undertake bolder activities in all of Canada's ocean areas. This past



Lieutenant-Commander Corey Gleason, Rear-Admiral John Newton and Captain (Navy) Michael Davie in Norway during staff talks.

Below: Artist's rendering of the *Harry DeWolf*.

summer, maritime coastal defence vessel *HMCS Moncton* was patrolling in Hudson Bay, while its sister ship *HMCS Shawinigan* was far west along the Northwest Passage, creating new learning experiences for sailors in the fleet.

"For several years now our crews have been increasingly busy familiarizing themselves with Arctic waterways and the communities that struggle with shifting economies, climate and human activities,"

says RAdm Newton. "We have engaged in new partnerships with government agencies that are keen to benefit from the support of the RCN."

As things continue to change at a fast pace in an increasingly accessible Arctic – whether it's the historic passage of the cruise ship *Crystal Serenity* through the Northwest Passage this summer, a refueling port for the navy at Nanisivik, Nunavut, scientific research or in-

creased external interests in the Arctic – the RCN's role in the North is expanding rapidly and the new Arctic Offshore Patrol Vessels will bring new responsibilities.

Construction of *Harry DeWolf* began in September 2015, and Irving Shipbuilding in Halifax is building the Arctic Offshore Patrol Vessel using a progressive build approach. Over the course of time, 65 smaller units become 21 larger blocks, which then become three mega-blocks.

LCdr Gleason says the engines have now been installed, the middle section is upright, and the entire ship will soon be sitting in the water.

"Trials will begin in 2018 and more routine seasonal deployments will be under way commencing in 2019," he says. "However, there is a great deal of work to do before those deployments can take place."

Also assigned to the ship at this time are LCdr Scott Meagher as executive officer and Chief Petty Officer First Class Gerry Doucet as coxswain.

