



## **Van Arty Assoc and RUSI Van Members News July 29, 2014**

### **Wednesday Lunches**

The Mess dress requirements for Wednesday lunches is Business Casual. Business casual can best be described as our 'summer dress'. Minimum requirement is an open neck button up shirt with dress pants or slacks (no blue jeans, pls), Ladies is the equivalent. Of course we never discourage the wearing of jackets and ties. Guests are always welcome.

Lunches continue through the summer. We always take a short break over the Christmas period, otherwise they keep going, except when Mrs Lum decides to take a holiday or if the Mess or Armoury are shut down for military requirements.

**Note:** *The Handicap elevator in the Armoury is out of order until further notice.*

### **RUSI Co-sponsors WW 1 Series at Vancouver Public Library**

RUSI Vancouver, in collaboration with the Vancouver Public Library, will co-sponsor a series of four presentations to commemorate the centenary of the beginning of the First World War at the VPL Central Branch on West Georgia and Homer in Vancouver. The involvement of RUSI Vancouver in the VPL series is part of RUSI's community engagement initiative.

The first is by RUSI member and author Robert MacKay on Wednesday, July 30<sup>th</sup> which deals with his first published novel *Soldier of the Horse* that tells the story of his father's time in Lord Strathcona's Horse (Royal Canadians), part of the Canadian Cavalry Brigade in WW1. The Robert MacKay and subsequent presentations are free and held in the Alice MacKay Room at the Central Branch from 7:00 to 8:30 pm, and facilitated by RUSI President Cam Cathcart.

Robert MacKay attended UBC and spent 13 years in the Canadian Navy with service on destroyers and submarines. He later taught school and practised law. In 2008 Robert visited Moreuil, France, where the "Straths" had their finest hour. He says the landscape is largely unchanged but the scars of battle from 100 years ago remain on the land. Robert MacKay has a new novel coming out this September called *Terror on the Alert*, which is set in a Canadian submarine during the Cuban missile crisis. This book ties in with the 100<sup>th</sup> anniversary of submarines in Canada.

Also on July 30<sup>th</sup> - at 1:30 pm, the theme for *Soldier of the Horse* will be established when the movie "War Horse" will be shown for free in the Alice MacKay Room. Set in rural England and in Europe during the First World War it is the story of the friendship between a horse named Joey, and a farm boy named Albert. Hard times forces the horse to be sold to the British Army for use

in cavalry charges against the enemy, much like those experienced by Robert MacKay's father. "War Horse" is described as "one the great stories of friendship and war" through the odyssey of Joey, the war horse. Directed by Steven Spielberg, "War Horse" was first shown in late 2011.

- The next RUSI-VPL presentation will be on Tuesday, September 16<sup>th</sup> featuring *From the West Coast to the Western Front* a new book co-authored by Mark Forsythe and Greg Dickson.
- On Tuesday, October 7<sup>th</sup> Keith Maxwell, Vice President of RUSI and a military historian, will provide a presentation on the topic of *Canada and the First World War*.
- The final RUSI sponsored presentation will be on Monday, November 3<sup>rd</sup>. It will feature Dr. James Wood, from the University of BC Okanagan. His subject is "*British Columbia and the Great War*".

In addition RUSI, in cooperation with various Regimental museums in Vancouver, will organize and install First World War memorabilia displays at three separate Vancouver Public Library branches. These are Kensington, Terry Salman (Hillcrest) and Kerrisdale. The exhibits will be installed at these branches from October 15 to November 15, 2014 as part of the 100<sup>th</sup> anniversary of the beginning of World War One.

## **Prosthetic Limbs have Come a Long Way since the Great War**

by Sharon Kirkey, *Postmedia News* July 23, 2014



*Extraordinary advances in prosthetic limbs have largely been driven by the horrors of war.*

PHOTO: Pat McGrath, *Ottawa Citizen*

The first time Jody Mitic ran five kilometres on his carbon-fibre feet he couldn't wait for it to end. It was like watching his two-year-old run. "She can run, kinda," said Mitic, a retired

master sniper who lost both legs below the knee when he stepped on a landmine in Afghanistan in 2007. "Every now and then she'll just fall over for no reason because she hasn't figured exactly how to move her legs and feet together. That's kind of how I felt when I was running." When Mitic runs he uses J-shaped blades similar to those used by sprinter Oscar Pistorius (the "Blade Runner" now on trial for the shooting death of his girlfriend.) Mitic has run half-marathons and competed in The Amazing Race Canada.

Extraordinary advances in prosthetic limbs have made it possible for amputees to do the once unimaginable — advances that have been largely driven by the horrors of war. Legs and knees

have advanced from heavy, unwieldy wooden “peg legs” with no moving parts to microprocessor or computer-controlled knees and ankles that can read a person’s gait. Metal hands and hooks have evolved to computer-controlled hands that can close and grip objects as delicate as an egg without cracking it, all using muscle signals from the residual stump. In the past it was all about making artificial limbs look real. “The younger generation is preferring to make it their own,” said Karen Valley, director of the War Amps National Amputee Centre who was born missing her left arm below the elbow. “A lot are going without their covers. They’re happy to show off the mechanics.” Some vets have their regimental logo painted on their prostheses. Demand for artificial limbs exploded with the First World War. In Canada alone, of the more than 172,000 Canadians who reported wounds during the war, 3,461 had a limb amputated, according to the Canadian War Museum.

Many amputations were caused by infections and gangrene that festered in gunshot and shrapnel wounds. Machine guns caused new and horrific damage. “They were in hand-to-hand combats, often in muddy and dirty environments. They didn’t have the same kind of quick evacuation techniques or antibiotics,” said Valley. The wounded had to be taken from the battlefield by stretcher-bearers “and moved by a combination of people, horse cart, and, later on by motorized ambulance ‘down the line,’” according to the British Library. By the time they reached medical help, arms and legs had to be cut off in order to save lives.

With today’s advanced warfare as well as improvised explosive devices designed to do maximum damage, “there are a lot more spontaneous amputations,” said Valley, of the War Amps, which started in 1918, originally as the Amputation Association of the Great War. With newer veterans many amputees are bilateral — two legs lost. “The most common after Afghanistan is the landmine injuries — both legs and often above the knee,” said Dr. Amanda Mayo, a physiatrist with the amputee program at Toronto’s Sunnybrook Health Sciences Centre. “They’re just more severe injuries, with greater amounts of limb loss.” Today, advances in robotic technology is pushing the field closer to prosthetics that function as close to the real thing as possible, perhaps even better. Last year, scientists at the Rehabilitation Institute of Chicago announced the world’s first “thought-controlled” bionic leg. The test patient was a lower-limb amputee who had surgery to direct nerves from damaged muscle in his amputated limb to healthy hamstring muscle above his knee, according to a press statement. The robotic leg responds to tiny electrical signals from the redirected nerves in his hamstring that are picked up via sensors on the skin, and routed to a computer program that “decodes” the type of movement the amputee is trying to make and then loops that information to the robotic leg.

Already on the market are knees that have microprocessors and sensors “that are figuring out way in advance what the amputee is trying to do,” said Mark Agro, president and CEO of Otto Bock Canada, the German-based company and Paralympic sponsor. Terry Fox ran on Otto Bock components that were simple, unsophisticated hinges, Agro said. “Today, if Terry was running, he’d be running on one of our microprocessor knees constructed of carbon-fibre and

electronics that measure his speed — whether he’s walking quickly or running, whether he was slowing down. And it would dial into the knee what the amputee needs.”

Sensors in the prosthesis act as strain gauges that tell the software what phase of gait the person is in — heel-strike, foot flat or toe-off. A gyroscope tells whether the amputee is moving forwards or backwards. There were two reasons why Terry Fox had a little hop in between each step, Argo said. One was to wait for the prosthesis to catch up, the other to cushion the blow on his stump. Today there are liners and cushions for comfort and skin protection. “What amputees say after using a microprocessor knee is, ‘I don’t have to think any more about walking,’” Agro said. They are not inexpensive. A microprocessor knee can cost anywhere from \$50,000 to \$100,000. The company’s myoelectric Michelangelo Hand features four movable fingers and a thumb and a multi-positional grip. Myoelectric refers to voltage generated by muscle activity that’s measures on the skin surface. Like the “bionic” leg, electrodes placed on the residual limb transmit muscle signals to the prosthesis. Microprocessors and electric motors convert the signals into movements. A sensor in the thumb can detect if something is about to slip out of the person’s hand before the amputee even notices, and grips harder.

In February, a Swiss and Italian team of researchers announced they had restored the sense of touch to a hand amputee by surgically wiring a sensory-enhanced artificial hand to the nerves in the man’s upper arm. “I could feel things that I hadn’t been able to feel in over nine years,” amputee Dennis Aabo Sorensen, who lost his hand in a fireworks accident nine years ago, told the Associated Press. “It was the closest I have had to feeling like a normal hand.” Most amputations today are due to diabetes or circulatory problems, as well as traumas such as burns or car crashes. For warriors who have had legs blown off, the healing process is difficult. “Early on they can be a little bit hostile. They can have difficulty accepting the state where they’re at,” said Todd Waite, a certified prosthetist at Hamilton Health Sciences Centre. “But once they get to the acceptance stage of what their body is, they’re a great group to work with. They’re very goal-oriented — their ability to overcome these types of things is incredible.”

## **Canada’s Defence Diplomacy Hurt by Tight Budget**

*Demands and costs are rising, but the budget is frozen* By Kathleen Harris, CBC News Posted: Jul 25, 2014



*An internal government report says Canada's place around the table on the international defence scene is being compromised by a frozen budget. (Associated Press)*

Overstretched staff and drastic cuts to travel and hospitality are compromising Canada’s defence diplomacy program, considered a crucial tool for advancing military and trade interests at a time of complex global insecurity, according to a new internal evaluation.

The report, completed more than six months ago but only recently released on the National Defence website, also warns of a lack of direction, co-ordination and resources required to meet objectives of the government's global engagement strategy. Program costs averaged a relatively flat \$96.7 million a year between 2008-09 and 2011-12. But a budget squeeze has arisen because of rising costs for salaries and other areas such as translation, which skyrocketed by 64 per cent in just three years.

Social media and increasingly complex security issues are adding to the workload and costs, along with a deluge of requests from government, opposition parties and parliamentary committees. *'For the cost of one fighter jet, Canada can run its defence diplomacy program for years.'*—Walter Dorn, *Royal Military College of Canada*. That means the volume of work and scope of responsibilities have ballooned with no extra staff to execute the work, according to the report. Walter Dorn said shortchanging diplomacy is detrimental to Canada's contributions to the world and our reputation on the world stage. "The military co-operation program does essential work in training and educating officers from abroad, particularly in peace operations," he told CBC News. "Canada is no longer the prolific peacekeeper it once was. For the cost of one fighter jet, Canada can run its defence diplomacy program for years. The government is showing short-term thinking to the detriment of the country's long-term contributions and reputation."

During the last decade, each Canadian defence attaché who was formerly responsible for an average of two countries is now responsible for an average of four. Defence diplomacy aims to advance Canada's wider foreign and security agenda by partnering with foreign militaries on operational needs and key decisions. It's considered valuable for gaining a deeper understanding of other countries' perspectives and defence organizations and engaging in informal dialogue on what can develop into important formal agreements. The evaluation notes that the program has filled "critical roles" for the federal government and military with analytical insight, advice and building international partnerships, but says cuts are putting that in jeopardy. "Going forward, there is some concern that recent budget reductions may impact the ability of some of its components to continue to deliver their current high level of performance," the report says.

Hospitality expenditures have been slashed by about 60 per cent over two years, from \$428,570 to \$178,269. Major offices in Washington and London have had "dramatic" cuts. "There are concerns ... that the reductions in travel and hospitality are beginning to impact the ability of the program to operate effectively," the evaluation warns. The protocol for hospitality is "very time consuming and difficult to manage," requiring each attaché to make a request at least 10 weeks in advance for any hospitality expense that needs approval from the minister of defence.

For example, ministerial approval is required to pick up the tab for dinner at a restaurant where alcohol is served or if a spouse is attending. "Sometimes, they have to cancel a military diplomatic event because they didn't receive the approval in time," the report reads. "The hospitality restrictions were seen to have negative effect on networking activities, especially when liaison officers from other countries are not subject to the same funding restrictions."

On top of the financial and workload challenges, there is now much confusion over the focus and priorities for the program — whether it should be on military co-operation, promoting Canadian industries or providing perspective on civil, political and military climates around the world. However, the Department of National Defence says the program continues to meet all its objectives despite the budget constraints. "DND takes its role as a strong steward of taxpayers' dollars very seriously and makes every effort to ensure sound financial management of taxpayer dollars," the department said in an email response to questions from CBC News. "Reducing hospitality spending is a prudent alternative that helps protect core capabilities," it added. In 1994, there were 28 Canadian defence attaché offices covering 55 countries. By 2013, there were 30 of the offices covering 138 countries

## **Unmanned Helicopter Moved Cargo during Afghan Mission**

DAVID PUGLIESE *Published on: July 26, 2014*

After lifting more than 4.5 million pounds of cargo and conducting thousands of delivery missions for the U.S. Marine Corps, the Lockheed Martin and Kaman Aerospace Corporation K-MAX cargo unmanned aircraft system (UAS) has returned to the United States following a nearly three-year deployment in Afghanistan, LM noted in a news release.



In 2011, K-MAX became the first unmanned helicopter to deliver cargo in theater for the U.S. Marine Corps. As troops were frequent targets of improvised explosive devices and insurgent attacks, the K-MAX answered the call to reduce the number of truck resupply convoys and their troop escorts to protect soldiers on the ground.

Manufactured by Kaman Aerospace Corporation and outfitted with its mission package of systems and sensors, the heavy-lifting K-MAX UAS is a transformational technology that can lift 6,000 pounds of cargo at sea level. Capable of flying delivery missions day and night, K-MAX can reach remote locations without risking a life.

“We are proud to welcome home the unmanned K-MAX Team from their successful deployment in theater,” said Dan Spoor, vice president of Aviation and Unmanned Systems at Lockheed Martin’s Mission Systems and Training business. “K-MAX exceeded expectations as an unmanned platform in keeping our troops out of harm’s way, and we continue to develop onboard technology and autonomy for future military and civil missions.”

With more than five decades experience in unmanned and robotic systems, Lockheed Martin offers multiple solutions for air, land and sea. From the depths of the ocean to the rarified air of the stratosphere, Lockheed Martin’s unmanned systems help our military, civil and commercial customers accomplish their most difficult challenges.

## US Navy Releases New 3-D Medical Study Aid App

MILLINGTON, Tenn. (NNS) -- The Navy launched a new innovative app June 13 entitled "Anatomy Study Guide App - America's Navy." This new, first-of-its-kind app is now available for free in the App Store and Google Play Store.

Created by the Navy's advertising agency, Lowe Campbell Ewald, the app will serve as a relevant tool to help students with their studies and remind them that the U.S. Navy supports their goals, and offers opportunities that can help pay for school. The app is the first-of-its-kind for the military and is offered in the App Store and the Google Play Store at no cost. The app will help bring the U.S. Navy to the forefront of potential medical career paths, and will be a handy reference for those who are currently enrolled in programs of study, those already practicing in the medical or healthcare fields, and individuals who may consider serving in this line of work. "The app is an incredible tool," said Cmdr. Bradley Kluegel, director of the Navy's medical programs division for Navy Recruiting Command. "This tool will be immediately beneficial in practice for both future healthcare professionals and current practitioners. Additionally, it will be a tremendous asset for our team of medical program recruiters as they discuss Navy opportunities with future Navy physicians and other healthcare professionals."

The app features 3-D functionality that allows for an enhanced learning experience of the human anatomy, including interactive diagrams of the muscular system, vascular system, heart, skeletal system, skull, brain and more. It incorporates testing, note-taking and sharing functionalities, as well as pre-loaded U.S. Navy healthcare content and relevant links to more information through digital and social properties.

### Who is it?

**Last Week:** Last week's picture showed the Maharaja of Patiala inspecting a 12 inch Mk III railway howitzer and was taken near the village of Borre (Northern France) around 20 August 1918. There were 5 variants of the 12 in Howitzer.



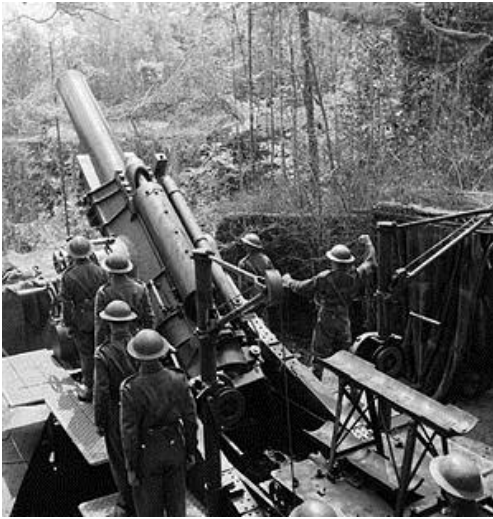
*Mk. I "Hilda" in action, Ypres, 7 November 1917*

*One Mk V and two Mk IIIs, Catterick UK, 12 December 1940*



The Railway variants (used from 1916 to 1940), Mk I, Mk III and Mk V were built by the Elswick Ordnance Company. 81 were built. The Mk I had a 12 ft barrel and the Mk III a 17 ft barrel. Both had the recuperator above the barrel and a traverse

of 20° L&R. The Mk V had a 17ft barrel with the recuperator below the barrel and a traverse of 120° L&R. In World War II, the Mk III and MK V were deployed for the home defence of Great Britain.



*12-inch howitzer Mk IV manned by Newfoundlanders, UK, 1942*

The Heavy Siege variants (used from 1916 to 1945), Mk II and Mk IV, were made by Vickers. 57 were built. The Mk II had a 12 ft barrel and the Mk III had a 17 ft barrel. This variant was dismantled and transported in 6 loads mounted on traction engine wheels. It was then reassembled on its static siege mounting on top of a steel "holdfast", with 22tons of earth in a box sitting on the front of the holdfast to help counteract recoil.

**This Week** Summary field executions are now a thing of the past in our Armed Forces. However, it wasn't so long ago that officers were offered the option of blowing their brains out with their service revolver should they shame the Regiment by passing the port the wrong way or having an affair with the CO's wife. NCMs (what ORs are now called) were not so lucky, usually being shot or hanged for offences such as having a button undone.

This week's photo might show one of the latter, but, due to any notation, we don't know. Can you help us? Who are these chaps, and what has the fellow on the right done to deserve such an inglorious fate? When was it and were you there?

Answers can be sent to the editor or the author ([johnd. redmond@telus.net](mailto:johnd.redmond@telus.net)).



### **From the 'Punitary'**

Diplomacy - the art of letting someone have your way.

### **Murphy's other Laws**

Enough research will tend to support your theory.

### **Quotable Quotes**

Without change there is no innovation, creativity, or incentive for improvement. Those who initiate change will have a better opportunity to manage the change that is inevitable.

- *William Pollard*





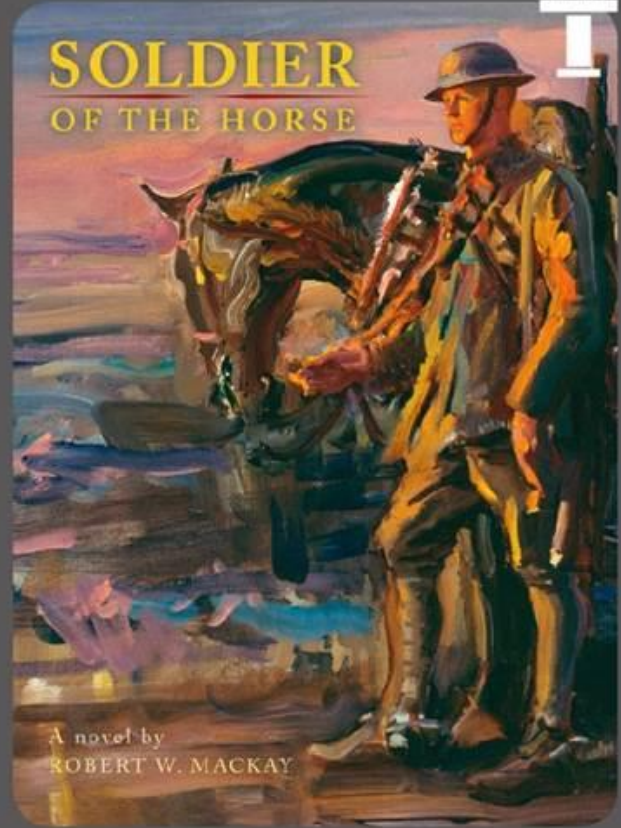
**BATTLEFIELD TOUR OPPORTUNITY  
75<sup>th</sup> ANNIVERSARY OF THE  
MANNING OF THE GUNS AT YORKE ISLAND  
12-14 SEPTEMBER 2014**

Here is your opportunity to join the Officers & Gunners of 15 FD RCA as they return to commemorate the manning of the guns at Yorke Island in August 1939.

Departure of the tour will be from the Bessborough Armoury at 6 PM on Friday, 12 September 2014, with transportation to Yorke Island on the morning of the 13<sup>th</sup> to attend a dedication ceremony at the gun position, BBQ lunch, tour of the island, and a reception in the evening at the Village of Sayward Royal Canadian Legion. After an overnight stay at Sayward, the tour will return by ferry to the armoury on the afternoon of 14 September 2014.

There will be options for those who wish to stay overnight with the troops on Yorke Island, with the remainder being quartered in Cabins at a nearby resort.

Space still available. Email [bob.mugford@shaw.ca](mailto:bob.mugford@shaw.ca) for a tour application form and details



# ROBERT W. MACKAY:

## *Soldier of the Horse*

Wednesday, July 30

7 p.m.

Central Library

350 W. Georgia St.

Alice MacKay Room

Lower Level

Author Robert W. Mackay shares insights on the humanity, dedication and vulnerability of those who served in the First World War and in the Canadian Cavalry Brigade.

**Free!**



In commemoration of Canada's First World War Centenary

# MEMORIAL DEDICATION

— CATES PARK/WHEY-AH-WICHEN —

— DEEP COVE, NORTH VANCOUVER, BC —

**YOU ARE INVITED TO JOIN THE DEDICATION CEREMONY**

**MONDAY AUGUST 4 2014**

**11AM**

**THE 100TH ANNIVERSARY OF CANADA ENTERING WORLD WAR ONE**



ENJOY THE PARADE OF COLOURS AS FLAGS FROM OUR NATION ARE MARCHED ON  
HEAR GUEST SPEAKERS IMMORTALIZE THE MEMORIAL AND THOSE WHO SERVE  
WITNESS THE UNVEILING AND DEDICATION OF THE NEW MEMORIAL  
ENJOY THE SONGS OF TRIBUTE BY SOLOIST AND NORTH SHORE CHOIR

**BE PART OF HISTORY IN DEDICATING A UNIQUE JADE STONE MEMORIAL TO**

**HONOUR THOSE WHO GAVE THEIR LIVES FOR FREEDOM**



Canada



NORTH VANCOUVER  
DISTRICT



— OUR THANKS TO THE TSLEIL-WAUTUTH NATION, FEDERAL GOVERNMENT, DISTRICT OF NORTH VANCOUVER, ROYAL CANADIAN LEGION —