

In this issue

Trenton uses foam to prevent hangar fire damage

Smart tendering on the horizon for Halifax heritage project

Ensuring clean drinking water for base and community

DCC staff gear up for adventure challenge on Vancouver Island

Recognizing employees for outstanding performance

ADM(IE)/DCC tee off to support military families

[Subscribe](#)

[About DCC At Work](#)

DCC *at* WORK

Learn more about current DCC projects and events

JUNE 2012 / VOLUME 11, ISSUE 2

Trenton uses foam to prevent hangar fire damage

Should a fire ever break out at CFB Trenton's recently completed Hangar 1—home to Canada's fleet of C177 Globemasters—a new high-expansion-foam fire suppression system will help save the expensive and complex aeronautical electronics and equipment from damage.

[Read more](#)



A test of the new fire suppression system, the first of its kind for DND, was part of the commissioning phase for the \$90-million Hangar 1 facility. Columns of foam were dropped from nozzles in the ceiling. Within 24 hours, the foam breaks down to a powder and is swept up.

Smart tendering on the horizon for Halifax heritage project

A multi-phase project to restore the Halifax Armoury, a heritage structure in the centre of the city, is giving DCC a chance not only to help restore a piece of this maritime city's history but also to test out an innovative approach to procuring the necessary expertise.

The Armoury is a large, turreted building constructed in the late 1880s to house some of Halifax's many military organizations. The facility has been in constant use since then ...

[Read more](#)

Ensuring clean drinking water for base and community

Supporting DND, which is responsible for the water supply for the base and nearby community of Wainwright, Alberta, DCC staff have become experts on all aspects of water

treatment—from the latest in filtration technology to modern systems for gathering and removing the leftover effluent.

The water treatment plant in Wainwright, which was built in the 1960s, has been in need of upgrades. This launched a series of modernization projects over the past couple of years.

[Read more](#)

DCC staff gear up for adventure challenge on Vancouver Island

It's not often that DCC staff are called upon to ski, run, cross country ski, bike, canoe and kayak—all in the same day—but for a group of dedicated DCC staff, it was another opportunity to explore the west coast lifestyle of British Columbia.

"The Snow-to-Surf adventure relay race is a wonderful thing to do because there aren't many places in the world where you can ski, run, ride and paddle all in the space in a few hours," explained Susan Low, Coordinator, Environmental Projects for DCC in the Comox office ...

[Read more](#)

Recognizing employees for outstanding performance

Each year, Defence Construction Canada proudly recognizes the outstanding achievements of its employees and the contributions they make to the success of the Corporation. By honouring these individuals and teams, DCC highlights the innovative spirit and dedication of its most valuable resource—its people. This program also celebrates ...

[Read more](#)

ADM(IE)/DCC tee off to support military families

After last year's cold and soggy day, the sunshine for this year's ADM(IE)/DCC golf tournament was welcomed by all participants. The annual fundraising event was held ...

[Read more](#)

Defence Construction Canada's Client Service Newsletter



Construction de Défense Canada
Defence Construction Canada

Canada

Last Modified: 3-6-2015

[Important Notices and Disclaimers](#)

In this issue

Trenton uses foam to prevent hangar fire damage

Smart tendering on the horizon for Halifax heritage project

Ensuring clean drinking water for base and community

DCC staff gear up for adventure challenge on Vancouver Island

Recognizing employees for outstanding performance

ADM(IE)/DCC tee off to support military families

[Subscribe](#)

[About DCC At Work](#)

DCC *at* WORK

Learn more about current DCC projects and events

JUNE 2012 / VOLUME 11, ISSUE 2

Trenton uses foam to prevent hangar fire damage

Should a fire ever break out at CFB Trenton's recently completed Hangar 1—home to Canada's fleet of C177 Globemasters—a new high-expansion-foam fire suppression system will help save the expensive and complex aeronautical electronics and equipment from damage.

"Water and electronics don't do so well together," notes Vern Haggerty, Manager, Construction Program, DCC Trenton. "There would be a large loss if we used just water to put out a fire. But the foam does not damage the aircraft."

The opening of the Hangar means that the Canadian Forces can service the planes at home, in a safe and properly equipped facility, instead of in the U.S., at a cost of \$230,000 a month.

The fire suppression system, the first of its kind for DND, works by dropping a columns of foam (imagine the suds from heavy-duty, high-concentrate dish soap, Haggerty says) from nozzles in the ceiling. As it reaches the ground, the foam spreads and covers the floor choking off the oxygen to the fire and putting it out. Within 24 hours, the foam breaks down to a powder, which can then simply be swept up. The water that helps make up the foam goes down drains in the floor to a 1.5-million L effluent tank.

A test of the new system on March 23, 2012, was part of the commissioning phase for the \$90-million hangar.

The test required that the system fill the hangar, which is about 10 storeys high and as big in area as three NHL-sized hockey rinks, with one metre of foam in less than two minutes. ([Click here](#) to see a short video of the system performing flawlessly during the test.)

The test was intended to prove a number of aspects of the system—beyond whether it extinguished a fire, explains Dan Munroe, Team Leader, Construction Services. "We also had to test the concentration of the foam solution, to ensure we have the right expansion rate." Two tests were performed to show that the system functions in both



manual mode (activated by a person) and fire detection mode (activated by infrared flame detectors).

The fire suppression system is part of an integrated life

safety system, Munroe notes. As a result, in the lead-up to the test, DCC had to ensure that all the components of the broader system worked. This included, in particular, the fire alarm system, since it activates not only the foam release but also, for example, automatic closing of fire doors, and shutting down air distribution systems while ensuring fresh air continues to be pumped into the stairwells personnel use to exit the hangar. In fact, a last-minute hitch with the fire alarm meant some evening and early morning work for the DCC team and the system designer, to be ready in time for the test, Haggerty recalls.

It was also a challenge getting the sensors to only detect heat sources that might be related to a fire, to avoid an accidental discharge of the system, Haggerty says. "A lot of extra effort had to go into ensuring that it wouldn't detect jet backwash on the apron, a barbecue being lit or vehicle exhaust."

A six-foot wall of foam is contained by plastic during the Hangar 1 fire suppression system testing. Standing between the foam and hangar door are (top to bottom) DCC staff Dan Heslinga, Siva Gnananayakan, Bird Construction VP Richard Ellis-Smith, Vern Haggerty, Deanna O'Leary and Wendy Sero.

Defence Construction Canada's Client Service Newsletter



Construction de Défense Canada
Defence Construction Canada

Canada

Last Modified: 3-6-2015

[Important Notices and Disclaimers](#)

In this issue

Trenton uses foam to prevent hangar fire damage

Smart tendering on the horizon for Halifax heritage project

Ensuring clean drinking water for base and community

DCC staff gear up for adventure challenge on Vancouver Island

Recognizing employees for outstanding performance

ADM(IE)/DCC tee off to support military families

[Subscribe](#)

[About DCC At Work](#)

DCC *at* WORK

Learn more about current DCC projects and events

JUNE 2012 / VOLUME 11, ISSUE 2

Smart tendering on the horizon for Halifax heritage project

A multi-phase project to restore the Halifax Armoury, a heritage structure in the centre of the city, is giving DCC a chance not only to help restore a piece of this maritime city's history but also to test out an innovative approach to procuring the necessary expertise.

The Armoury is a large, turreted building constructed in the late 1880s to house some of Halifax's many military organizations. The facility has been in constant use since then and was in need of significant repair, explains Peter Zwicker, Coordinator, Professional Service Contracts, at DCC's Atlantic Regional Office.



Located in central Halifax, the armoury remains a historic and active military structure. Designed by Thomas Fuller, the exterior is based on a medieval castle and was one of the most advanced structures of its day.

The six-phase project to attend to the aging structure began in the winter of 2011 and will be complete in 2019. Phases 1 and 6 involve major upgrades to the foundation, drainage and roof. Phases 2–5 comprise work to shore up each of the four walls.

It is in this part of the project that the benefits of the innovative procurement approach will be seen, Zwicker says.

Work on heritage structures is often full of surprises, since construction techniques have changed over the years, and careful records of previous repairs were not always kept. Zwicker notes that this was certainly the case with early work on the foundation and drainage. "Nothing was as it appeared." (See box for details of another unexpected encounter during the early stages of the project.)

In light of this, the project team scheduled a "prototype" phase to see whether it could keep

the remaining unexpected developments down to a minimum. Exploratory work on one part of one of the Armoury's massive walls is allowing the team to figure out the problems likely to be encountered during the rest of the wall repair and to determine the best solutions. Zwicker expects this work to be completed in the winter of 2013.

DCC will then be able to draft tendering documents for the contractors needed to carry out the restoration work based on an accurate and real-world assessment of the situation (rather than a mock-up of the desired finished wall), Zwicker explains. "There will be fewer variables," he explains, "and this will mean better value for the Crown."

With a cost of approximately half a million dollars, this preliminary work will save time and money down the road, Zwicker continues, since most of the surprises will have already been discovered.

What do you do with obsolete cannons?

While excavating to put new footing drains in to protect the foundation of the Halifax Armoury, contractors dug up a long-buried piece of military history.

The modern requirements for such work meant that the trench being dug had to be at a certain slope and depth. As a result, the backhoe caught the edge of one of an eventual stash of four cannons dating from the mid-19th century.

How these weapons, which were used both on board ships and for ground fortification, ended up being buried beside the Armoury is unclear, says Peter Zwicker, Coordinator, Professional Service Contracts, at DCC's Atlantic Regional Office. But the best guess among the various heritage and military experts involved with the project is that the cannon had become obsolete technology to be disposed of as more modern weaponry came into use in the 1880s.

The cannons were in "amazing condition," Zwicker says, except for some damage on the very bottom. Since being dug up, they've taken on new life at the Navy's dive unit in Shearwater.



Crews working on the initial stages of the upgrade of the Halifax Armoury unexpectedly uncovered four cannons. Work with the heavy machinery stopped to let archeologists excavate around them. The guns, which weigh 15 tons each and were likely of a type that was in common use for coastal defence in the 19th century, have been taken to CFB Shearwater for cleaning and inspection.

In this issue

Trenton uses foam to prevent hangar fire damage

Smart tendering on the horizon for Halifax heritage project

Ensuring clean drinking water for base and community

DCC staff gear up for adventure challenge on Vancouver Island

Recognizing employees for outstanding performance

ADM(IE)/DCC tee off to support military families

Subscribe

About DCC At Work

DCC *at* WORK

Learn more about current DCC projects and events

JUNE 2012 / VOLUME 11, ISSUE 2

Ensuring clean drinking water for base and community

Supporting DND, which is responsible for the water supply for the base and nearby community of Wainwright, Alberta, DCC staff have become experts on all aspects of water treatment—from the latest in filtration technology to modern systems for gathering and removing the leftover effluent.



The finished water treatment plant in Wainwright and some of the air-handling equipment and the generator.

The water treatment plant in Wainwright, which was built in the 1960s, has been in need of upgrades. This launched a series of modernization projects over the past couple of years.

Most recently, DCC oversaw the construction of an addition to the existing water treatment plant to accommodate a highly efficient filtration system. This technology essentially acts as a giant sieve and adds another barrier to the multi-barrier approach to drinking water safety. This membrane technology is capable of removing turbidity and pathogens including Cryptosporidium and Giardia, which can cause mild to fatal gastrointestinal infections to a population. "Simple chlorination cannot kill them," explains Vitaliy Kharchenko, Coordinator, Construction Services, at DCC Wainwright.

Three filter cassettes and the supporting pools and pipes were installed in the new 30-m x 20-m concrete addition. (Adding a fourth cassette can expand the system.) Among the challenges of the commissioning phase for the \$6.2-million project, Kharchenko says, was getting the computer systems that drive the new filters to work seamlessly with those running the existing water treatment equipment.



The ZeeWeed 500 membrane cassette—the final filter through which treated water passes before it leaves the plant.

Construction is planned for the spring of 2013, on three new lagoons to support the system. The three ponds, which will measure 90 m x 150 m overall, will replace two existing ponds that are unlined, non-engineered and have no influent or effluent flow control. As result, there is limited operational control for settling and release of acceptable water to the environment including the lake that supplies the water (pumped from the nearby Battle River), possibly putting the fish in the lake at risk of contamination.

The new ponds will be lined with a high-density polyethylene liner and allow for full operational control to ensure the drinking water supply and the environment is protected. The new lagoon system will accommodate all the wastewater from the water treatment plant including lime and alum sludge from the initial treatment process.

Construction of the new lagoons will bring a number of challenges, says Christian Brazeau, Coordinator, Environmental Projects. Among them is managing the groundwater that will inevitably flow into the excavations, since the new ponds are near the lake and the groundwater is high. "We hope that by building a clay cut-off wall (essentially, a trench backfilled with clay) we can significantly reduce the amount of groundwater that seeps into the excavations."

During the environmental assessment for the project, DCC also provided numerous recommendations for dry summer months, particularly related to erosion and sediment control, Brazeau notes. The recent and coming improvements to the overall water treatment process in Wainwright have been an interesting challenge with results that will not only benefit the local base population but the entire community of Wainwright.

Defence Construction Canada's Client Service Newsletter



Construction de Défense Canada
Defence Construction Canada

Canada

Last Modified: 3-6-2015

[Important Notices and Disclaimers](#)

In this issue

Trenton uses foam to prevent hangar fire damage

Smart tendering on the horizon for Halifax heritage project

Ensuring clean drinking water for base and community

DCC staff gear up for adventure challenge on Vancouver Island

Recognizing employees for outstanding performance

ADM(IE)/DCC tee off to support military families

[Subscribe](#)

[About DCC At Work](#)

DCC *at* WORK

Learn more about current DCC projects and events

JUNE 2012 / VOLUME 11, ISSUE 2

DCC staff gear up for adventure challenge on Vancouver Island



The Snow-to-Surf consisted of Jordan Semeschuk (downhill skiing), Stéphanie Tanguay (cross-country skiing, 8km), Isadora Debortoli (downhill run, 7.5km), Michael Clarke (cross-country run, 8.5km), Trevor Espenand (mountain bike, 12km), Coleen Purdey-Morrison (Kayaking, 5km), Al Paul (road bike, 30km), and Genevieve Marquette and Susan Low (canoeing, 5km).

It's not often that DCC staff are called upon to ski, run, cross country ski, bike, canoe and kayak—all in the same day—but for a group of dedicated DCC staff, it was another opportunity to explore the west coast lifestyle of British Columbia.

"The Snow-to-Surf adventure relay race is a wonderful thing to do because there aren't many places in the world where you can ski, run, ride and paddle all in the space in a few hours," explained Susan Low, Coordinator, Environmental Projects for DCC in the Comox office and informal spokesperson for the DCC's Snow-to-Surf team.

Snow-to-Surf is an annual eight-stage relay race that starts at the top of Mount Washington (1,585 metres or 5,200 feet) and reaches sea level at the shores of the Comox Marina. This legendary race attracts teams from BC, Alberta, Washington state and beyond.

It was the first year for this DCC team who dubbed themselves "The Cubicle Crew." The "crew" included staff from 19 Wing Comox and the Western Regional Office (plus one supportive spouse). The team, led by Dustin Bennett, Coordinator, Construction Services, who took on captain duties, sported eye-catching CSA-approved construction t-shirts with the DCC logo.

Race day—April 29th—dawned dry but overcast. Racers were dropped off at their respective starting points by support vehicle drivers Bernie Arthurs and Steve Love. On top of Mount Washington things were looking less-than-ideal as alpine skier Jordan Semeschuk started the race by running 800 metres up the mountain in ski boots and then had to find his way

down the hill in a sea of fog before passing the team wristband to waiting cross-country skier Stéphanie Tanguay who took off for an 8km ski. Waiting for Stéphanie was runner Isadora DeBortoli (7.5km), who tagged second runner Mike Clarke (8.5). On mountain bike was Trevor Espenant (12km), and in the kayak was Coleen Purdey-Morrison (5km). The longest portion of the race—road cycling for 30km —was tackled by Al Paul, and the final leg involved Susan Low and Genevieve Marquette paddling 5km in a canoe to reach the Comox marina and ring the finish bell. (“And gather our team beer tickets,” added Low.)

Highlights from the race? “It was a great day, we built a lot of team spirit, and a lot people from the office came out to cheer. It’s so important to get out and do this because it’s been so busy with all the projects happening here at CFB Comox,” said Low.

The Cubicle Crew finished the race in 5:38:57 and placed 175th overall in a field of over 200 teams. Are they game to tackle it again? “Absolutely,” said Low. “We are already making our training plans for next year.”

Defence Construction Canada's Client Service Newsletter



Construction de Défense Canada
Defence Construction Canada

Canada

Last Modified: 3-6-2015

[Important Notices and Disclaimers](#)

In this issue

Trenton uses foam to prevent hangar fire damage

Smart tendering on the horizon for Halifax heritage project

Ensuring clean drinking water for base and community

DCC staff gear up for adventure challenge on Vancouver Island

Recognizing employees for outstanding performance

ADM(IE)/DCC tee off to support military families

[Subscribe](#)

[About DCC At Work](#)

DCC *at* WORK

Learn more about current DCC projects and events

JUNE 2012 / VOLUME 11, ISSUE 2

Recognizing employees for outstanding performance

Each year, Defence Construction Canada proudly recognizes the outstanding achievements of its employees and the contributions they make to the success of the Corporation. By honouring these individuals and teams, DCC highlights the innovative spirit and dedication of its most valuable resource—its people. This program also celebrates the exemplary achievements of the men and women who help DCC support the Department of National Defence and the Canadian Forces. On May 8, 2012, DCC announced the winners of their 2011–12 National Awards during a ceremony held at Library and Archives Canada in Ottawa.

Recipients of the 2011–12 National Awards

- Gilles Bernardin, Manager, Operations at CFB Petawawa, received this year's **President's Award**. Gilles was honoured with this prestigious award for his outstanding leadership capabilities and broad experience in guiding staff and clients through complex projects. His professional, friendly and open attitude makes him available to others and contributes to his strength as a mentor and leader.
- The Fire and Life Safety (FLS) team from the National Capital Region, was honoured with the **Service Development Award**. The FLS team received this award for their knowledge, skill and professionalism and outstanding service to DND/CF. Team members include Janette Brodeur, Michael Leduc, Richard Hudon, Daniel Campeau, Laurent Longval, Ian Adams and Dean Scowen.



DCC national award winners are joined by members of DCC's Executive Team, Board Chair, Robert Presser, and Scott Stevenson, DND Assistant Deputy Minister Infrastructure and Environment.

- The **Innovation Award** was presented to Faouzi Djafi, Program Support Officer in the Quebec Region. Faouzi was the winner of this award for adapting software packages to create site images that can be manipulated to illustrate future infrastructure site plans. These images are useful for planning and presentations.
- The recipient of the **Robert Graham Memorial Award** was Norman Steele, Environmental Projects Coordinator in Halifax. Norman received this award for his commitment to promoting sound environmental practices both at work and in his community.
- The winner of the **Customer Satisfaction Individual Award** was Jenelle Ramnath, Environmental Services Coordinator in Kingston. Jenelle was honoured with this award for her consistently high level of customer service, extraordinary focus on DND's environmental requirements, and appreciation by DCC staff throughout the Ontario region.
- The **Customer Satisfaction Team Award** was presented to the Mid-Term Accommodation Project (MTAP) Team which includes Louis Brisson, Alicia Phinney and Ryan Maher from the National Capital Region. The MTAP team won for their collaborative and proactive approach to handling a complex set of challenges.

The **Friends of DCC Award** was presented again this year by DCC's President and CEO, James Paul. LCol Wayne Gauthier was the recipient of this award for his collaborative approach and shared commitment to delivering the Directorate Construction Project Delivery program effectively and efficiently.

As the program neared to a close, a special guest was introduced. Representing our Client-Partner, Assistant Deputy Minister (Infrastructure and Environment) Scott Stevenson addressed the crowd of Head Office employees.

Defence Construction Canada's Client Service Newsletter



Construction de Défense Canada
Defence Construction Canada

Canada

Last Modified: 3-6-2015

[Important Notices and Disclaimers](#)

[Newsletters 2012](#) > [DCC At Work - June 2012](#)

 [Printer Friendly](#)

In this issue

Trenton uses foam to prevent hangar fire damage

Smart tendering on the horizon for Halifax heritage project

Ensuring clean drinking water for base and community

DCC staff gear up for adventure challenge on Vancouver Island

Recognizing employees for outstanding performance

ADMIE/DCC tee off to support military families

[Subscribe](#)

[About DCC At Work](#)

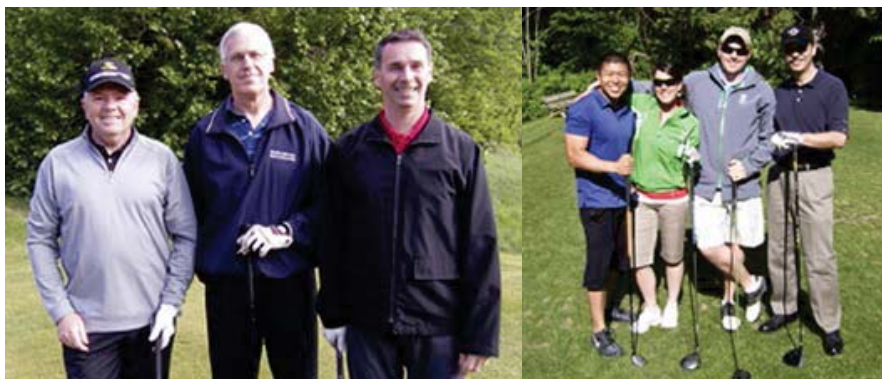
DCC *at* WORK

Learn more about current DCC projects and events

JUNE 2012 / VOLUME 11, ISSUE 2

ADM(IE)/DCC tee off to support military families

After last year's cold and soggy day, the sunshine for this year's ADM(IE)/DCC golf tournament was welcomed by all participants. The annual fundraising event was held recently on May 31, 2012 at the Mont Cascades golf course in Cantley, Quebec. The tournament was a huge success with 137 golfers in attendance followed by a banquet and prizes. A raffle raised \$642 for the Military Families Fund and Soldier On. This year DCC took home the bragging rights with the winning team of Peng Lim, Laura Blais, Andrew Murray and Andy Ruta (right photo).



Pictured here in left photo prior to tee-off are (left to right) James Paul, DCC President and CEO, DND Director, Infrastructure and Environment Transformation, Holmer Berthiaume, and Daniel Benjamin, DCC Vice-President, Operations.

Defence Construction Canada's Client Service Newsletter



Construction de Défense Canada
Defence Construction Canada

Canada

Last Modified: 3-6-2015

[Important Notices and Disclaimers](#)

[Newsletters 2012](#) > [DCC At Work - June 2012](#)



[Printer Friendly](#)

In this issue

Trenton uses foam to
prevent hangar fire
damage

Smart tendering on the
horizon for Halifax heritage
project

Ensuring clean drinking
water for base and
community

DCC staff gear up for
adventure challenge on
Vancouver Island

Recognizing employees for
outstanding performance

ADM(IE)/DCC tee off to
support military families

[Subscribe](#)

[About DCC At Work](#)

Subscribe

To subscribe to DCC At Work, please send your name and email address to: [The Editor](#)



Construction de Défense Canada
Defence Construction Canada

Canada

Last Modified: 3-6-2015

[Important Notices and Disclaimers](#)

[Newsletters 2012](#) > [DCC At Work - June 2012](#)



[Printer Friendly](#)

In this issue

Trenton uses foam to prevent hangar fire damage

Smart tendering on the horizon for Halifax heritage project

Ensuring clean drinking water for base and community

DCC staff gear up for adventure challenge on Vancouver Island

Recognizing employees for outstanding performance

ADM(IE)/DCC tee off to support military families

Subscribe

About DCC At Work

About DCC at Work

DCC at Work is our Corporate Services newsletter, delivered bi-monthly to our public- and private-sector partners and the public at large. The articles in *DCC at Work* focus on service-delivery success stories, from the most complex projects to innovative ideas that save time and money.

To suggest story ideas or to comment on the newsletter, please contact [the Editor](#).

Look for the next issue of *DCC at Work* in August 2012.



Construction de Défense Canada
Defence Construction Canada

Canada

Last Modified: 3-6-2015

[Important Notices and Disclaimers](#)