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DEFENCE CONSTRUCTION CANADA

DCC At Work

The Client Services Newsletter of Defence Construction Canada

World-class training facility opens at CFB Wainwright

The new Canadian Maneuver Training Center (CMTC) EXCON officially opened its doors at CFB Wainwright on October 18.

Lieutenant-General Marc Caron, Chief of the Land Staff of the Canadian Forces cut the ribbon to the facility, launching a demanding and highly realistic combat training center for army soldiers and commanders.

Construction began on the new \$5.7 million facility in August of 2004. It was designed and built to revolutionize the way DND trains soldiers and commanders, said Mark Wiltzen, DCC's Wainwright Site Manager.

DND required a facility that could be set-up to practice tactics used in the "genuine" field, he added. So the Department turned to DCC, which offered contract coordination, project management support, and quality auditing.

"The new 2,650-square meter facility is the Exercise CONTROL (EXCON) centre, and houses specialized training



In October, the doors were officially opened to CFB Wainwright's new Canadian Maneuver Training Center (CMTC) EXCON. This \$5.7-million project was designed and built to revolutionize the way DND trains its soldiers and commanders.

equipment to accurately simulate battle scenarios," said Wiltzen.

The computerized system will be able to replicate virtually anything that happens on the battlefield.

"The CMTC can field up to 500 actors to simulate all situations," added Wiltzen.

Indeed, its goal is to help prepare Canadian soldiers for deployment.

In April of 2006, about 1,000 Canadian soldiers are scheduled to arrive at CFB Wainwright to fight a

month-long bloodless battle using lasers to replicate real combat.

While soldiers engage in combat training, a radio in their vests will transmit their progress back to the EXCON centre, which is filled with computers, transmission and receiving systems, training staff, and a large theatre where commanders and instructors can watch the action in real time.

"This is a fair sized project for Wainwright," said Wiltzen.

"More significantly, it's also one of the main reasons the base will see approximately \$150-million in spin-off projects. These include new officer and NCO quarters, PMQ's, a maintenance facility, CMTC Opposing Force Facilities (OPFOR), and a new community recreation centre."

The architects for the CMTC project were IBI Group, while structure, mechanical and electrical work was performed by Earth-Tech.

The general contractors were Gen-Mec, mechanical work was coordinated by Gold Bar Mechanical, while electrical work was completed by CEL Electric.



Lieutenant-General Marc Caron, Chief of the Land Staff of the Canadian Forces, cuts the ribbon to CFB Wainwright's EXCON facility.

DCC's President and CEO reappointed

After nine years of overseeing sustained growth, sound management, and an impeccable record of delivering results and value to the taxpayer, Defence Construction Canada's President and Chief Executive Officer, Ross Nicholls, was reappointed by the Government of Canada.

Upon examining the Corporation's record of achievement and success, the Standing Committee on Government Operations and Expenditures unanimously approved Nicholls' re-appointment on Wednesday, Oct. 26.

"It was a successful session," said Nicholls, who was joined at the Committee by Board Chair John McLure.

"Getting the opportunity to present the business case for why Defence Construction has been successful was important, and there was significant interest from members of the committee."

With DCC's operations expanding throughout the Corporation, the organization is continuing to provide the flexibility and resources to meet the needs of the client, he added.

"The Corporation is continuing its significant and sustainable growth pattern. We're taking steps to make sure we're managing the growth as well as possible. Over the past five years, we've seen a year-over-year 20 per cent growth in staff and revenues, and we're



Ross Nicholls was reappointed as DCC's President and CEO in October. Building on the Corporation's successes and working to meet all of DND's needs continues to be a focus for Ross and the entire DCC team.

making sure that all of our management systems are robust enough to handle that growth."

Nicholls remains proud of several achievements undertaken by the Corporation after he became President and CEO.

The move to a service-billing arrangement stands out.

"Prior to that, we'd been dependent on appropriations. Now, of course, we receive no subsidies. We're now completely self-sufficient financially for both our current and future needs."

"That was a big step. We definitely would not have grown the way we have

if we had been dependent on appropriations."

Meanwhile, the implementation of quality-management systems in the last several years has also been an accomplishment, he noted.

"On the Contract Services side, the fact that their quality management system was ISO certified recognizes the risks and the benefits of quality management in that high profile, high risk area of business."

Equally important, said Ross, has been DCC's ability to maintain excellent relationships with the client and the industry as a whole.

"Maintaining those relationships with the industries and the people we deal with, whether in the architectural, engineering, or construction sector, has been key," said Nicholls.

While there is time to reflect on past accomplishments, the focus remains on driving the Corporation forward, and working together to adapt to the needs of the client, especially in a time of transformation, he said.

"It will continue to be an important and interesting time for DCC as the Canadian Forces and the Department of National Defence go through a new transformation exercise," said Nicholls.

Accessibility a focus at CFB Halifax

Providing accessible facilities for people with disabilities has been a growing priority for the Department of National Defence. And Rick Orlando, a Project Manager at DCC's site office at CFB Halifax, is helping steer the effort on one of Canada's maritime bases.

Orlando, a retired Major who worked as an engineer for more than 23 years, was seconded to FCE Engineering Division to direct the base's Barrier-Free Accessibility Program. It's funded 50 per cent by the federal government, and provides DND bases with the resources to implement infrastructure improvements, including elevators, wheelchair ramps, washroom upgrades, and accessible parking. The improvements are designed to meet the Barrier-Free Code CAN/CSA B651-04.

Of course, CFB Halifax is a large base, with facilities and sites at Shear-

water, Stadacona, the HMC Dockyard, and the Windsor and Willow Park accommodation buildings, among others. The program extends to Saint John, and from Yarmouth to Sydney, Nova Scotia, where several armories have been cleaned up.

Needless to say, the undertaking posed huge logistical challenges, so base officials turned to DCC to carry out this job.

"I knew the system, I knew DCC, and I knew how the military worked," he said. "DND was tasked to make its infrastructure more accessible, and I took the challenge very seriously. My 100 per cent focus is on this program."

Most tenders on the various sites have gone through DCC, he added.

"There are a lot of buildings, and there have been attempts made to make things accessible in the past, but codes and

standards have improved since then, and a lot of the work done back then does not meet the new standards. So we've been upgrading existing accessible buildings to meet the new code standards."

Despite the workload, Rick is making significant progress. While the program officially ends March 31, 2006, over 100 sites have been improved.

That includes everything from widening doors and constructing ramps, to installing elevators, a particularly challenging job. But no matter the scale of the changes, each has had an important impact on staff and visitors.

"We've had so many people comment on the great work we're all doing," said Orlando.

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Charting unexploded ordnance — and Canadian history — for DND

Remnants of World War II are never too far from Austin Baird and his work with unexploded ordnance (UXO).

As DCC's new UXO service line Program Support Officer, Austin coordinates the removal of UXO, and active range clearance, at sites across the country for the Department of National Defence.

It's highly technical work, considering that much of his time is spent dealing with artillery shells, grenades, depth charges, torpedoes, mortars and air-dropped munitions. While most UXO is found on active ranges, a significant amount is from the World War II-era. That's why studying historical documentation is an important part of the job. Often, this research reveals several clues as to what UXO specialists like Austin can expect to unearth.

He points to DCC's role with providing assistance to DND with underwater UXO sites. Many of the 1,100 UXO sites on the east coast have a direct connection with World War II, said Austin.

"Most of those are associated with the convoys that were in formation and heading out from Halifax," said Austin.

With German U-Boats streaming through the St. Lawrence, Allied ships were sometimes attacked by these forays into Canadian waters.

When Allied forces struck back and sunk a U-Boat, its on-board weaponry, among other debris, drifted to the bottom of the river, where much of it has remained to this day.

"Historical research is a big component of UXO," said Austin. "The documentation that comes out of the Maritime sites is fascinating. You can read actual statements from the pilots and crew that pinpointed and witnessed the sinking of a submarine. Their detail is there, what piece of ordnance they used, and whether there was any sign of life afterwards."

It's that kind of attention to historical knowledge – combined with the use of



DCC's UXO service line provides DND with all manner of support, including ordnance investigation and removal, risk assessment, work plans, contracting, and project management. DCC is well-positioned to provide the corporate memory for the Department's UXO issues.

state of the art digital-mapping – that helps UXO officers get the job done right.

A new member of the DCC team, Austin brings a wealth of experience and knowledge to the growing UXO service line.

Austin served with the Canadian Navy as an ordnance and munitions clearance diver for 15 years. In 1992, he began work as a contractor for various jobs, including the clearance of Canadian Forces Ammunition Depot Bedford, which houses all the weaponry for Maritime Forces Atlantic (MARLANT) vessels.

"We are very much supporting the DND UXO program as they develop process and procedures, providing the range of services that DCC generally does, such as contract management and procurement."

***Austin Baird,
UXO Program Support Officer***

In 2000, he spent four years in Hawaii working for UXB International as a demolitions supervisor for a \$450 million project, in which he and his team removed 13.5 million pounds of ordnance and remnants, with over 120,000 live ordnance encounters.

Of course, working with UXO involves much more than studying historical evidence. Austin worked in Mon-

terey, California, running a digital anomaly excavation team at Fort Ord, a former training and munitions base.

Using digital geophysical mapping, UXO specialists can acquire suspected UXO targets, venture out in teams and re-acquire those targets from dig maps, a process that's now a mainstay in UXO.

Thanks to digital mapping, Austin and his team were able to dig up to 250 items a day.

Austin is also the Deputy Project Manager for the UXO Legacy Sites Research Database, which represents 400 sites across Canada. "We're expecting about 250 of those sites to produce UXO evidence."

UXO also poses significant challenges on land. In some cases, contaminated areas are discovered during DND building and construction projects. Other UXO sites are exposed over time, thanks to Canada's frigid winters. Frost, said Austin, can actually move ordnance, which means that known ordnance locations can shift and change with seasons.

"Frost can even push ordnance outside of range areas," said Austin. "But it varies with the amount of water in the ground, the density of the soil, how deep the rock is, all sorts of factors that will affect it."

It's this type of experience, combined with DCC's history of infrastructure expertise and work with geology, soil types, topography, environmental, cultural and heritage property limitations that make it a ready resource for DND to draw on.

"We are very much supporting the DND UXO program as they develop process and procedures, providing the range of services that DCC generally does, such as contract management and procurement," Austin explained.

His focus is to build on those skills and develop UXO practice line for DCC and to offer expertise to the Corporation's clients at DND.

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Season's Greetings

Everyone at DCC wishes you the very best of the holiday season and a Happy New Year, especially to those far from home.

In Ottawa, we're remembering the season by collecting personal articles for the **Shepherds of Good Hope Christmas Hamper Program**. Every year, DCC employees strive to make the holiday season a bit brighter for those in need by participating in local charity programs.

CFB Gagetown booms with green construction projects



DCC is helping DND deliver on its environmental commitments. At CFB Gagetown, these commitments are being met with the construction at the 2nd Battalion, Royal Canadian Regiment (2 RCR) Operations Complex.

The second phase of this DCC project is underway, and will ensure the Regiment has a modern, energy-efficient facility to support operations in Canada and abroad.

Needless to say, green construction is an important part of this building, and DCC is helping to meet the highest environmental building standards.

The building will meet Leadership in Energy and Environmental Design's Silver Standard. Energy efficiency strategies designed for the project include solar heating and uses grey water (essentially, recycling building water) for toilet flushing, an innovation that ensures sound water conservation.

"This complex will provide accommodation for the battalion," said Darrell Stewart, DCC's Gagetown Site Coordinator. "The complex has a floor area of 24,960 square meters. This includes offices and stores for the battalion headquarters and three rifle companies."

Also included in the \$22-million complex are weapons trainers and simulators, and an indoor running track, added Stewart. Phase one, which includes all services to the building such as structural steel, complete exterior finishes, landscaping and the roof, has been completed, he said.

DCC is currently administering the interior second phase of the project, which amounts to \$14 million. This phase includes all interior finishes, mechanical, and electrical equipment.

The 2 RCR is a LAV III Mechanized Infantry Unit of 700 personnel housed in 14 buildings that date back to the mid-1950s. In 2006, the Regiment is planning to move out of those buildings and into their new facility.

At that point, said Stewart, DCC will engage another 3R (reduce, re-use, and re-cycle) demolition contractor to decommission those buildings. The estimated contract of this project is \$2 million.

The general contractor is Maxim Construction, of Saint John, New Brunswick. The design consultant for this project is AMEC Architectural Services Ltd., of Fredericton.

Accessibility a focus at CFB Halifax

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"It really makes a big difference to people with disabilities."

On Orlando's first week on the job, he met an employee in a wheelchair. The two agreed to work together to test out various facilities, with the goal of ensuring even the basic codes make sense. Sometimes, they have surpassed the code requirements

"We've gone out to different buildings and sites, and he's tried out the walkways, the doorways and ramps to see first-hand what kind of problems you experience," he explained.

"It just opens up your eyes to what many people confront every single day. It's been a tremendous learning curve for me. But he points out things that even go beyond the code."

Washrooms, for example, don't require motorized doors if a wheelchair can fit through the frame and adequate clearance exists, he explained.

But some people lack the upper-body strength to push the door open, he said. So to ensure true accessibility, all the base's accessible washroom doors have been fitted with wheelchair-accessible motorized doors, said Orlando.



Rick Orlando stands beside a new passenger elevator at the TEME Building in Willow Park, CFB Halifax. DCC constructed a building extension to accommodate the elevator and shaft, new steps, a power door, and accessible parking.