# 2 CER – Ex SKILLED SAPPER – 21-31 Oct 12

From 21 to 31 October 2012, 2 Combat Engineer Regiment (2 CER) conducted Exercise SKILLED SAPPER in CFB Petawawa. The intent of the exercise was to have Squadrons practice engineer tasks in a semi-permissive environment. Tasks performed by the Squadrons included demolitions, route denial, route opening, search, ACROW bridging, combat road construction and water purification. Squadrons were deployed into the field while the support element operated out of garrison, providing maintenance and logistics support.

During the first week of the exercise, 28 Combat Service Support Squadron was responsible for conducting live demolitions ranges, with the intent developing competencies in use of demolitions on a variety of targets under a tactical situation. The targets consisted of steel beams, concrete blocks, timber stringers, non-standard bridges, wire fences and trees. The troops had the opportunity to formulate a variety of methods of attack, execute multiple demolition stages using all types of charges pushing the envelope and experimentation at the lowest level. The aftermath consisted of an impressive display of target destruction, debris, and fallen trees.

**Sapper placing a charge on a steel I-beam**

Effectively blocking and clearing roads with chainsaws and explosives is the bread and butter of the combat engineers. During Ex SKILLED SAPPER, members of 23 and 24 Field Squadrons took turns denying roads with barbed wire, concrete blocks, fallen trees and anti-tank mines. The task of clearing these formidable obstacles was then given to other engineers from the Regiment who eagerly set to their task using the minefield clearance procedures, ploughs on their vehicles or, if possible, using explosives. This portion of the exercise lent itself to friendly competition between the Squadrons and troops, which led to new and creative techniques being practiced to both open and deny routes. In the end many trees were turned to splinters, concrete turned to dust, and a good time was had by all.

**An abatis being breached**

When engineers are not blowing stuff up they can often be found constructing bridges either in support of a manoeuvring army or to replace bridges that have been damaged by natural disasters. During this exercise, 2 CER focused its attention on bridges designed to help restore critical infrastructure after a natural disaster. The bridges built were prefabricated modular steel bridges called ACROW. The ACROW is an evolution of the Bailey Bridge, a bridge made famous during WWII for allowing the allied forces to rapidly reconstruct critical infrastructure in order to support the soldiers fighting on the front lines.

**ACROW being constructed with aid of heavy equipment**

The ACROW is meant to be built over a gap that has fairly flat approaches, allowing even the longest of trailer-laden transport vehicles to cross smoothly. As there were no gaps within the training area to accommodate the needs, 2 CER did as they often do and built their own. They wanted a significantly large hole in the ground with pristine roads approaching it and strong engineered walls to hold it all in place. Over a period of four days days, Heavy Equipment Troop (HET) moved over 15,000 cubic feet of soil to prepare an ideal location for the bridge. HET also practice the construction of retaining walls using gabions and concrete blocks. Constructing these walls for the gap allowed HET to hone the skills that could become essential during domestic or foreign emergency road repairs.

**Heavy Equipment Troop constructing a gap**

All field troops took turns building the bridge, but the bridging portion culminated on 28 October, when 1 Troop of 23 Field Squadron, was tasked to build a 75 foot bridge across the created gap. The execution could not have gone better. The bridge build took place when the final remnants of Hurricane Sandy were blowing through Petawawa, just to make the training that much more realistic. The bridge build proved to be a challenge for the Sappers of 1 Troop. After inventing new tools to facilitate construction and a lot of soaked Sappers, the bridge was in place and trafficable in just under 20 hours. With the experience that troops acquired during the build, 2 CER can now confidently build this bridge under any weather.

**1 Tp on the finished ACROW**

25 Combat Support Squadron also deployed the Reverse Osmosis Water Purification Unit (ROWPU) which deployed in austere conditions with a two man team. Three hours after arrival, the ROWPU was beginning to pump over 5,000 litres an hour of drinkable water out of Bostwick Lake in the training area. This capability to rapidly deploy and provide potable water has often been a major part of Canada's contribution to Humanitarian Operations and Disaster Relief.

Ex SKILLED SAPPER was an excellent training event that allowed engineers to be Engineers and further develop the capabilities of 2 CER. 2 CER can confidently say that it is that much better prepared for a variety of tasks in both domestic and international settings. Combat engineers within the Canadian Army allow our forces to live, move, and fight on the battlefield while denying the same to the enemy; the tasks performed by the engineers of 2 CER demonstrated that they are more than able to fulfill that role.