Sappers in Afghanistan

By Capt David I. Holsworth and Maj Don Dubois

By executing tasks such as clearing minefields in the former Yugoslavia, repairing damaged runways in Haiti or purifying water in Sri Lanka, sappers have always done what was needed to help fellow soldiers live, move and fight on the battlefield. Furthermore, most would agree that sappers are typically the hardest workers on deployments. The same definitely applies to Afghanistan. Within the brigade-sized Joint Task Force Afghanistan (JTF-Afg) deployed in the southern province of Kandahar, lies nearly a regiment's worth of sappers practising the many aspects of our trade.

The most traditional and largest grouping is the close support (CS) field squadron numbering over 130 personnel. Equipped with the new "engineer light armoured vehicles" (ELAVs), this sub-unit mainly focuses on providing close support to the Battle Group (BG) at the fighting end of the spectrum. To meet the BG's various needs, the squadron consists of three field troops, augmented with assets such as armoured engineers, heavy equipment and route clearance teams. This mix is task-tailored to provide the mobility and survivability support vital to the BG`s success.

Photo 1

Photo 2

Photo 1: MCpl Fiesel from 1 CER is commanding the AEV tasked with dozing down Strong Point Centre defences
Photo 2: Two Cpls from the 53e Escadron du génie léger are dismantling wire fences surrounding the Strong Point Centre

Every day, throughout the IED-ridden districts of Kandahar Province, sappers conduct route clearance operations, sometimes called "detection by detonation.'' Introduction of the Expedient Route-Opening Capability (EROC), which includes the Husky and Buffalo armoured vehicles, has certainly improved detection capability but much of the work is still done the old-fashioned way – on foot.

As well, patrols of any nature almost always require sapper participation. During these intense operations, engineers use their demolitions skills and search and clearance techniques to

support the other combat arms. When there is “free time,” field sections will often collaborate to improve camp infrastructure such as bunkers and observation posts. Also, engineers have constructed much of the tactical infrastructure to support the continuously increasing Afghan national security forces. In Kandahar during the last couple of years, sappers have used impressive quantities of Hesco Bastion field defence products – essentially metal fence-like cages lined with canvass and then filled with gravel, earth or sand. The end result is quickly installed earth walls used for constructing bunkers or fortifying Observation Posts and other vital points.

The Counter-IED (C-IED) Squadron, a new kind of engineer-led organization, is tasked with reducing the effect of IEDs on coalition forces. This is done through three lines of operations. The first, attacking the device, consists mainly of the technical task of neutralizing and disposing of IEDs. The Explosive Ordnance Disposal (EOD) Detachments, equipped with Cougars and complementary high-tech equipment, are deployed throughout the Canadian area of operations and provide much needed EOD support to our forces. EOD Dets are always at the ready, waiting for emergency calls. Over the years, our EOD operators have learned to adapt to the ever-changing IED types, and have become extremely adept at neutralizing these hazardous devices.

Deployed Fire Fighters cooling off a damaged AEV after an IED strike

C-IED’s second focus is training the force. Tactical Exploitation Teams (TETs), usually made up of senior non-commissioned members and/or junior officers, exploit IED blast sites and decipher the tactical clues that reveal insurgent techniques and procedures. Lessons learned from their findings are translated into new procedures for our forces with the goal of adapting to the ever-changing threat.

Last, combined efforts from everyone in this squadron leads to the third line of operations: attack the network. Evidence gathered from IED sites greatly enables intelligence-led operations, allowing coalition forces to target the IED-emplacing networks (suppliers, financiers, builders, emplacers and facilitators). The C-IED Squadron's efforts in training soldiers to find IEDs and to maintain proficiency in neutralizing devices has certainly helped save lives in Afghanistan.

At the other end of the spectrum, we find the Engineer Support Unit (ESU) which is a 120-member general engineer support (GES) squadron comprised of military and civilian members. This sub-unit provides Construction Engineer (CE) support to the camps outside the wire. CE tradesmen, such as electricians and plumbers, provide first-line infrastructure support to the tactical infrastructure sites as well as Project Management oversight of Afghan contractors hired by the ESU's Contract Section in KAF. Firefighters provide fire safety services for both structures and aircraft, and, like civilian firefighters with their "jaws of life," extract passengers from disabled armoured vehicles.

Inside the wire at KAF, CE operations and maintenance tasks at Canadian sites are provided by about 60 civilian employees, a group that includes all the construction trades as well as engineers, technologists, designers and administrative support staff. Contract Section also includes a joint civilian-military team of approximately 10 people who provide extensive contract support and project management services to large and small projects at KAF and tactical infrastructure sites throughout Kandahar Province.

Another engineer team that should be mentioned is Kandahar Provincial Reconstruction Team's (KPRT) Specialist Engineer Team (SET) which focuses on the Kandahar City reconstruction effort. This small team manages and overseas local contracts aimed at rebuilding damaged infrastructure, upgrades and renovations to existing civilian installations and implementation of new projects. Examples of the type of projects managed by the SET would be renovations to an Afghan National Police station, adding security installations at schools and universities (walls and gates), deliberate route repair and the introduction of new wells in communities.

Last, but certainly not least, is the Construction Management Organization (CMO), formed during Roto 4, comprising two Construction Management Teams (CMTs) and a headquarters element. The CMTs are Afghan labour teams of up to several hundred individuals managed by a team of about 12 construction engineers. The CMTs operate autonomously, working on intensive construction projects that are chosen in collaboration with local Afghan leadership. The most notable projects have been the construction of a causeway across the Arghandab River, expansion and paving of portions of the infamous Route Fosters in Panjwayi District and the digging of irrigation ditches in the Zhari District. These projects bring employment to the Afghan communities and help JTF-Afg achieve lasting positive effects in the districts where we operate.

CMT 2 is implementing a newly constructed irrigation ditch in the Pashmul community of the Zahrey District, early Spring 2009

CMT 1 working at expanding Route Fosters in the Panjwayi district

In conclusion, it is evident that engineers in theatre are organized in a task-tailored fashion and are employed in a vast array of tasks ranging from prodding dirt roads for IEDs, to putting out fires in camps, to supervising and paying locally employed Afghans for construction projects. The aim of this article was to bring to light what kind of work each of the engineer sub-

units does in theatre. It should also be mentioned that other engineers are being employed in training and mentorship of the Afghan National Army soldiers, maintenance at the Theatre Support Element and in key command and staff positions at various headquarters.

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Capt David I. Holsworth *served in Afghanistan in 2007–2008 as the Field Squadron's Operations Officer and is currently serving with the J Engineer Branch at CEFCOM Headquarters.* ***Maj Don Dubois*** *served at ISAF Regional Command (South) Headquarters as Provincial Chief Engineer for almost 10 months in 2007 and is now acting in the position of J Engineer Coord at CEFCOM Headquarters.*