EME JOURNAL

2-2011

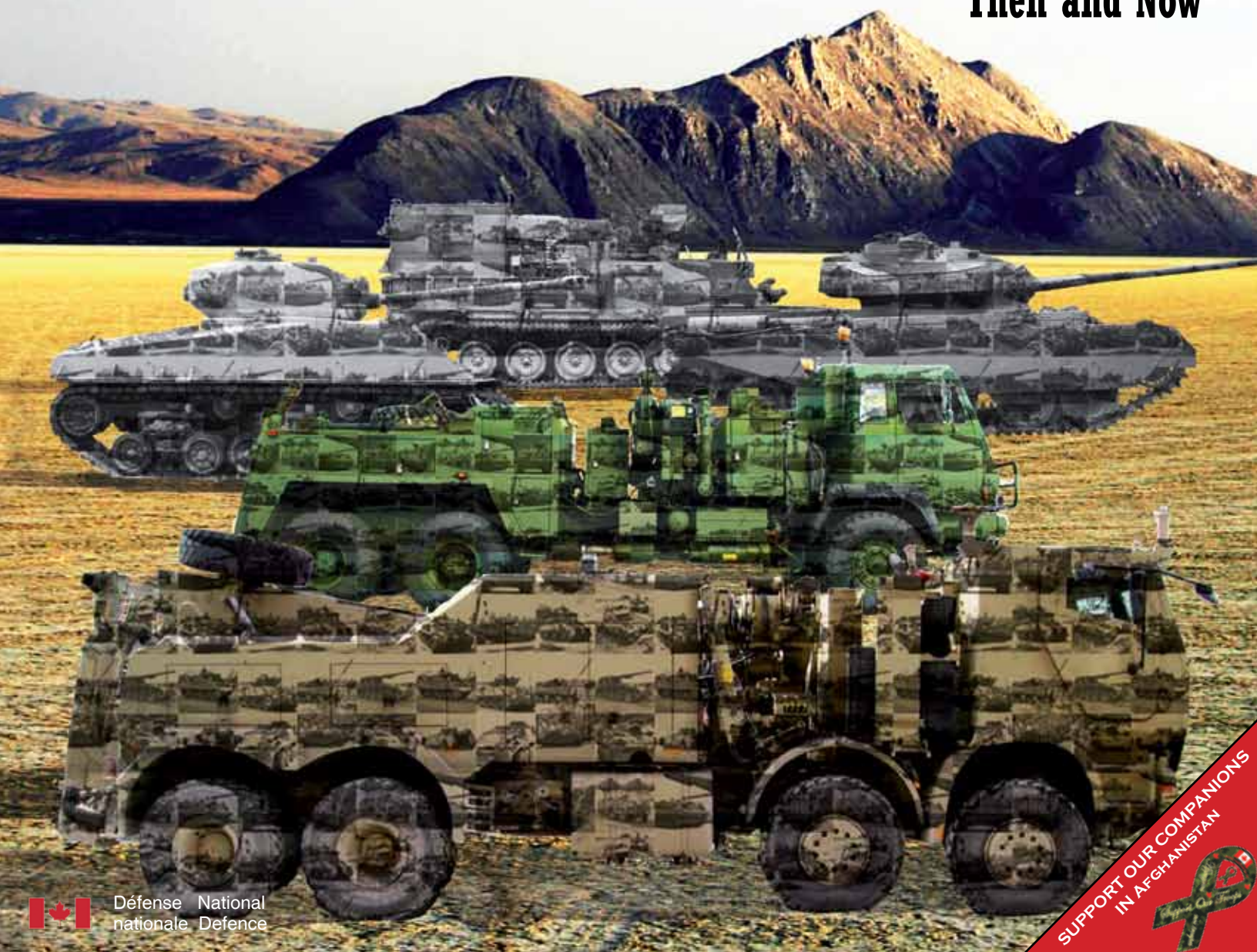
THE MAGAZINE OF THE ELECTRICAL AND MECHANICAL ENGINEERING BRANCH

CHANGING EQUIPMENT LANDSCAPE

EME and Equipment: Evolution and Adjustment

Closing With and Fixing Kit

RCEME Tanks: Then and Now



Défense nationale National Defence

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ARTE ET MARTE

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SGT PATRICK BERNIER

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Regimental Command

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Branch Advisor's Message

EME... As Important as Ever!

Col N. Eldaoud, EME Branch Advisor

First of all, it is a great honour for me to write to you as the new EME Branch Advisor. This is, quite simply, my dream job and I feel privileged to have been chosen for it. I therefore embrace my new role with a tremendous sense of enthusiasm and energy.

Next, on behalf of all the members of the EME family, I would like to thank Col Myers for the work he did during his three years as Branch Advisor. Col Myers did a remarkable job and made an extraordinary contribution to advancing the Branch. To name just a few of his achievements, Col Myers established the EME Regional Network across the country, reduced our recruitment shortage, made efforts to increase the School's training capacity, reviewed the role of the EME Reserve, and brought the EME family closer together by inviting the associations to play a more active role in regimental affairs.

As the new Branch Advisor, I want to continue to ensure that the EME Branch's role in the success of Army operations both at home and abroad remains vital. The feats of arms and engineering that our members accomplished during the conflict in Afghanistan have renewed our credibility. As a result our Branch has never been more relevant and we must continue to build on our success. To do that, I intend to carry out my mandate based on the following four key principles:

EME AS ARMY'S LAND EQUIPMENT ENGINEERS

EME members (technicians and officers) must be clearly recognized as equipment advisors and specialists in mobility, protection and firepower.

« The feats of arms and engineering that our members accomplished during the conflict in Afghanistan have renewed our credibility. As a result our Branch has never been more relevant and we must continue to build on our success.»

EME MEMBERS AS LEADERS IN THE ARMY

Whether they are from the Canadian Forces as a whole, the Army or the Branch, EME members must be prepared and qualified to take on positions of leadership.

EME ARE EVERYWHERE

To ensure the technical success of Army operations, we need to have sufficient presence of our members where required.

EME AS A PROUD REGIMENT

For almost 70 years, EME has been involved in all Army and Canadian Forces operations. We must recognize that and take advantage of our rich heritage.

I am committed to continue the initiatives that my predecessor began. Indeed, they are directly related to the approach I want to put forward.

I know that I can count on all of you to stand behind me and CWO Bergeron in applying these four key principles. We look forward to going everywhere EME members go and to witnessing the many successes that have given the Branch its excellent reputation.

See you soon!

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The Journal of the EME Branch

Branch Formation:	May 15, 1944
Branch Motto:	Arte et Marte
Branch Patron Saint:	Saint Jean de Brébeuf
Branch Colonel Commandant:	BGen (retired) P.J. Holt, OMM, CD
Branch Advisor:	Col N. Eldaoud, CD, MSM
Branch Chief Warrant Officer:	CWO JBA Bergeron, CD

Branch Chief Warrant Officer's Message

Close with and Fix Kit

CWO JBA Bergeron, EME Branch Chief Warrant Officer

For several years now, we have had to move in a constantly evolving environment. The acquisition of high-technology materiel and our organizational capacity to stay in tune with the best available in the world has brought about a major change in the way that we must adapt as technicians so as to be always ready to get to know and repair these new technologies. Our technical centre of excellence is severely being put to the test. Not only do we constantly have to be revising our training plans, but we also have to take into account the new emerging technologies that are developing.

Each of us knows how the battlefield of today can look, but few can predict what we may have to confront in the near future. Several examples of new materiel will be coming on the scene in the next few years and we have yet to define the shape and the technologies of many of them. Whether this is the new Close Combat Vehicle or the new Tactical Armored Patrol Vehicle, each new piece of equipment brings its own challenges. New weapon systems, an advanced digitization system, as well as new types of composite material will be challenging EME technicians for years to come.

We have been successful at keeping up so far. Several hardware items have been acquired including technical training equipment from the manufacturer, and others have been incorporated into our technical training. Much effort has been directed toward making our training up to date, but the technological challenges remain huge.

No matter what development will present us with in the way of new technologies and materiel, we must be able to close with and fix kit. That is what the Canadian Forces expects of us and no matter what the location or the climate, we as EME technicians must be ready to respond and fulfill our mission.

I often hear the comment: "What a good time this is to be in the Army!" I can assure you that this fully applies to EME technicians as well. A number of us will no longer be in the Branch when the new equipment, at the pinnacle of new technology, makes its appearance, but precisely because of this, it is incumbent on all of us to set the stage for the success of our future technicians. We can always speculate on what these technologies will be and what training we will need in order to be ready for them. However, my years in service have taught me that whatever the hardware or technology used, it will always be us who have the job of closing with and fixing kit; whatever the challenge that may arise, we must prepare for it to the best of our knowledge.

I would like to take this opportunity to wish the very best of luck to our new Branch's Advisor, Colonel Eldaoud. Our Advisor for the past three years, Colonel Myers, is leaving his position after having guided the fortunes of EME for this period. As we look back over the past three years of his appointment, we can confidently credit him with a great part of the success and the current positioning of EME within the Land Force and the Armed Forces as a whole. Many hours were spent working on the advancement of the EME Branch and he never lacked imagination or ingenuity while facing this challenge. Col Myers, BZ, and I have no doubt that you will remain along side our new Branch Advisor in order to continue this ongoing battle.

Call for Articles Edition 1-2012

Theme for the next issue : EME Post-Afghanistan

We invite you to send your articles and photos relating to the above mentioned theme and categories (maximum of 500 words). Please send your photos in a distinct JPEG file format rather than directly in the ''MS Word'' document used for the text. The photos must be at least 300 dpi (dot per inch), and 5''x7'' of size or more to qualify for the cover page. The author of the article and people portrayed in the photos must be identified at the end of the article as follows: Rank, initials, last name, trade and unit. **Deadline for submitting your article is January 13, 2012**. We reserve the right to select articles and to modify the texts according to the space available.

Internal email: +EME Journal@202DA@Montreal External email: EME.Journal@forces.gc.ca

The Big Picture
Changing Equipment Landscape

Text and photos: Murray Johnston
Photo Editing: Marie-Pier LaRose

The EME Branch's role is to keep all land equipment fit for operations. To do that many special vehicles have been developed, e.g. workshop machinery trucks, armoured recovery vehicles etc. As new equipment has been brought into service new EME variants have been developed so that EME can support it.

Glance on some EME vehicles that appeared over the past century...

RCEME Tanks: Then and Now

MCpl Blair McNutt-Holland

History, consisting of reading and writing long reports is not everyone's favourite school subject. But something sparked my interest in history over the last couple months. A new organization stood up for TF 1-11, the Mission Closure Unit (MCU).

Upon receiving the nod from the wife, allowing me to go on tour with the Maintenance contingent of the MCU, I was introduced to the new CO and RSM of this Unit. During their introductions and riveting power point presentation, the RSM made an interesting comment that this task that Canada has charged us with would make EME history as the type of job, on this scale, had not been attempted since the Korean War. I naively passed this off as a rally cry to get people pumped up about experiencing ground hog day in KAF for the next 6-8 months. Curiosity however, nudged my interest and I wanted to know if this statement was true or if the RSM was just blowing smoke.

So like every good EME technician I pulled out my dusty copy of "Canada's Craftsmen at 50!" by Col Murray C. Johnston. Reading the book I found myself thinking about the parallels of the D-Day preparations to what we are undertaking with the MCU's deployment to Afghanistan. Born during the weeks leading up to D-Day the newly formed RCEME Corps was given the monstrous challenge of water proofing all vehicles for the D-Day assault. The aime of the water proofing was to prepare vehicles for the channel crossing and landing. It would require the vehicles to successfully wade in water for six minutes, or more, at depths of up to five feet for trucks and seven feet for tanks. This program was to be completed on 150,000 vehicles by 650 American, British and Canadian technicians. This essential component of the D-Day preparations was executed over the month long period that vehicles were moving towards their embarkation areas.

The similarities between D-Day activities and present day were not so much in the movement and landing, but the organization and execution of the water proofing. As the RCEME Corps was completing their water proofing they choose to mark vehicles to identify what state they were in throughout the water proofing process. In order to ensure all vehicles were completed a system of marking each one with a different color of the RCEME tactical flag was implemented. As each vehicle completed one of the 3 different stages, a new color was added until the flag was complete. It was this event that spawned the phrase "RCEME Tanks".

The template of the RCEME flag used in the D-Day preparations. The colors were subdued for obvious tactical reasons.

The Sherman Beach Armoured Recovery Vehicle (BARV) on D-Day with the RCEME Markings visible.

Like its predecessors the MCU Vehicle Maintenance Coy is breaking down their maintenance plan into distinct stages. The first stage involves the removal of add-on armour and the cleaning of the vehicle. Following this, Vehicle section will inspect and repair the vehicle. The third step has Ancillary section completing the EO, Wpns and LCIS inspections and repairs. The final stage is quality assurance where Senior Technical Inspectors verify that all of the paperwork

« As each vehicle completed one of the 3 different stages, a new color was added until the flag was complete. It was this event that spawned the phrase "RCEME Tanks". »

and necessary repairs have been carried out.

Reading about the technicians of old and how they marked the vehicles with the EME tactical sign made me wonder if it was feasible for us to do it in theatre. While doing our confirmation exercise for the MCU I came across a problem that this idea would help us with. As a technician we do not have access to DRMIS to verify if a vehicle required our attention, so a quick and easily recognizable way to identify if a vehicle has been processed by our individual sections within maintenance would be beneficial. Sitting down with a group of my peers we devised a system where, as the vehicles passed through each stage of maintenance they would get a band of the EME flag. We considered paint but thought it would be too messy and difficult to administer as it would have to look good and be easily removed if required. We finally came up with a plan to use 3/4" by 6" strips of vinyl vehicle decal. Each stage would receive a specific colour of the EME flag so that when complete there would be a 3" by 6" EME flag on each vehicle.

A bonus to our marking scheme is that it allowed us to show the Canadian Forces that every vehicle that carried an EME flag on it went through a highly trained and competent inspection and repair process. We also felt that this would instil a sense of pride, and esprit de corps amongst the technicians as they completed their tour.

So if you see any of these vehicles in your future travels carrying the EME flag, know that members of the MCU Maintenance Company supplied effort and honour to repatriate that vehicle back to Canada.

close up of the sticker marking system on the Leo C2.

Bison 95150, the first completed A vehicle (wheeled) through maintenance. Also happens to be an MRT.

The waiting labour parking lot. The area is rapidly filling with the hundreds of vehicles that will be processed through maintenance.

EME and Equipment: Evolution and Adjustment

Murray Johnston, EME Branch Historian Emeritus & President, the RCEME Association

Today the EME Branch functions as a regiment of many small units everywhere. It is a regiment whose image is the MRT Commander and his or her team out doing a dirty, difficult, dangerous job and doing it well.

We need that sort of regiment in today's operational environment of high intensity operations, increasing dependence on more powerful equipment and the all-ranks, all-services, all-branches teamwork approach to operations. So today EME soldiers are looked upon as soldiers with initiative, flexibility and high regimental esprit de corps who have added value as; technicians, equipment engineers, LCMMs and, most importantly, as soldiers capable of small unit combat operations and high level operational staff jobs.

The EME Branch today is different from the RCEME Corps formed 67 years ago in the operational environment of World War Two. The boundaries of rank structure, corps and services were rigid and hard to cross. The infantry was not mechanized. Equipment was less powerful and less sophisticated than it is today. Equipment needing repair was backloaded to rear area workshops. There was little forward repair. So RCEME soldiers were looked upon as technicians who mainly worked in rear areas.

The EME Branch today is different from the RCEME Corps formed 67 years ago in the operational environment of World War Two.

However, the operational environment has changed over the years. From the 1960s, to the 1980s Canadians were employed, with a few exceptions, in low intensity peacekeeping operations. As the Cold War ended in the early 1990s, the Canadian operational environment suddenly became one of high intensity peacekeeping which was further intensified in the 2000s as Canada left the FRY and UN missions and focused on Afghanistan.

The EME Branch has been successful in keeping up to date and in so doing has transformed itself into the EME regiment we have today. Achieving that is a long story of perseverance, dedication and hard work mixed with successes and disappointments.

On the formation of RCEME in 1944 Canada's Craftsmen got a separate identity as an engineering group in the Canadian Army - something that they had fought hard to get and have successfully retained ever since. It is a key element in our EME Branch esprit de corps.

With the introduction of the M113

APC in 1965 all combat arms units became mechanized and got Maintenance Platoons. It meant that work focused on forward repair and all combat units got to see what EME technicians could do as front line soldiers and technicians.

« […] work focused on forward repair and all combat units got to see what EME technicians could do as front line soldiers and technicians. »

On the Unification of the Armed Forces in 1968 the RCEME Corps was disbanded and became the LORE Branch. Esprit de corps plummeted. But adopting the LORE name and badge was necessary in order to keep our separate identity as an engineering group.

Renaming the Branch to LEME in 1983 started the focus on the rebuilding EME esprit de corps.

Since 1991 several events including; getting the Horse badge back, the 50th Anniversary celebrations and the high intensity missions in the FRY and Afghanistan have completed the transformation of the RCEME Corps of 1944 into the EME Regiment of today – as illustrated so well by Master-Corporal Blair McNutt-Holland's article on page 7.

Well done all!

Bluebell 2011 – Closing with and Fixing Kit

The Changing EME Battlespace

Capt Ching Cheung

This year's EME Bluebell conference was held in Gatineau, Québec on 19 May 2011 at a fantastic venue, the Salaberry Armoury, home of the Régiment de Hull. With the Land Equipment Management System (LEMS) Working Group on Wednesday and Bluebell presentations on Thursday, plenty of excellent information was interchanged within the EME Branch. That included how our battle-space is changing, Branch manning, the Army's future equipment capabilities as well as EME training on the Defence Resource Management Information System (DRMIS).

Being a first-time participant to the LEMS Working Group, I had the privilege to discuss and potentially influence the Army's future recovery capability, to hear how the EME Branch is adopting new technologies, to lead team-discussions addressing several DRMIS issues, and to receive a lessons-learned brief on the UK Forces' departure from Iraq.

Bluebell 2011 scene. In foreground, the M777.

Bluebell proved to be extremely informative with presentations by our Army Commander LGen Devlin, the DGLEPM BGen Patch, the EME Branch Advisor Col Myers, the EME Col Cmdt BGen (Retired) Holt, and former Branch Col Cmdts Col Nappert and Col Johnston. New equipment options were on display either within the Armoury or within the compound, including an off-the-shelf heavy recovery capability, an upgraded LAV III, an M777, and the Close Area Suppression Weapon (CASW).

While Western Area representation at the conference was somewhat constrained due to Domestic Response Operations in Manitoba and Alberta, those that did make it received a lot of details from the briefs. As each Area is expected to receive their own copy of the Bluebell presentations and other

information, only a summary of the topics is provided here.

Change of Battlespace
Evolution of LEMS

From World War II to the missions in Afghanistan and Libya, technology has advanced and so has the enemy tactics. From conventional warfare to ever-more deadly improvised explosive device (IEDs), EME soldiers today have to continually adapt the changes and prepare the Army of Tomorrow. The EME Branch is updating keystone publications and making relevant changes to the current training system, and at the same time researching and investing in equipment with new and improved capabilities for future operations. This includes and not limited to the Close Combat Vehicle (CCV) and Tactical Armour Patrol Vehicle (TAPV) program.

Capt Cheung with a Close Area Suppression Weapon (CASW) System.

DRMIS

DRMIS can be explained as a powerful tool to manage resources, improve visibility and monitor efficiency in different levels of the organization as the software allows the astute user to generate up-to-the-last second reports and tables. The new software allows equipment data to be shared between the Craftsman to the Commander Land Staff almost instantaneously. As of May 2011, 75% of LEMS organizations were already up and running. DRMIS is recognized as having a lot of potential and that it is critical to LEMS. For EME to adapt to use this new tool efficiently requires proper training and fine tuning of the software. These and other issues continue to be addressed and are being resolved slowly. CFSEME has commenced DRMIS tech training while the DRMIS Service Desk tackles day-to-day technical problems. The Branch Advisor has assured that within a few years when the system and our familiarity with it matures, EME will look back and wonder how we lived without it.

Manning

With the current recruiting and training progress estimation at hand, the EME Branch is expecting to have close to full manning in all trades by the end of 2013. Once Soldier-Technicians arrive in unit lines, they will need to work diligently through their training package.

« EME soldiers today have to continually adapt the changes and prepare the Army of Tomorrow. »

Training

With the amount of new recruits in all EME trades waiting for their trades training, CFSEME will be running the most training serials it has ever run in a year. Once the junior technicians are finished their QL3 at the School, the recruits will be sent to the different OJT centers. The Branch Advisor did not sugar-coat the difficulties the OJT centers will face in the next few years, but he emphasized that the EME Branch requires these technicians trained to solve the manning challenges. Get ready OJT centers!

Recovery Assets

There will not be recovery or maintenance variants purchased as part of a number of the new fleet, such as the Close Combat Vehicle (CCV) project or the Tactical Armoured Patrol Vehicle (TAPV) project. This future concern, along with the current recovery capability deficits, has been heatedly identified and is being closely tracked. Eventually, it appears the Enhanced Recovery Vehicle (ERV) project will address the bulk of the deficiency. In the long term the EME Branch is looking into new concepts and designs that would be able to recover all fleet-variants the CF owns with one general purpose recovery fleet vehicle. As one of the interim solutions, the EME Branch is looking into a Fifth Wheel Towing and Recovery Device (FWTRD).

Closing out the day at Bluebell saw a farewell bid to Col Myers - his tenure as Branch Advisor is soon coming to a close – and the incoming Branch Advisor, Col Eldaoud, was identified. For me, it was a pleasure to have the opportunity to tell war-stories, or rather Wainwright-stories, with colleagues from around the country. This year's conference was certainly the best one I ever attended, and I am already looking forward to next year's professional development session.

Vehicles Evolution

Switching to Rubber Track System

Capt Tim Caines

Over the past five years the Tracked Light Armoured Vehicle (TLAV) fleet has been slowly converting to the Soucy rubber track system, with all M113A3 and M577A3 vehicles using rubber track. Recently and a significant number of the Mobile Tactical Vehicle Light (MTVL) have employed the system as well.

Since 1996, the Equipment Management Team (EMT) has been involved in several track trials in Gagetown. Key insights from these trials helped promote the decision to change from the traditional steel track to rubber. The rubber track system offers distinct advantages in fuel savings due to less rolling resistance, reduces the vibration for the crew and sensitive electronic components, and reduces weight load on the vehicle because it weighs half that of the steel track system. As well, the rubber track does not cause damage to roadways, which saves money and time needed to repair damaged roads during operations or training. Perhaps most importantly, once installed, the operational availability of the vehicle is increased as there is less operator maintenance associated with the rubber track system.

« Once installed, the operational availability of the vehicle is increased as there is less operator maintenance associated with the rubber track system. »

Despite all of the testing and advantages, the roll out of the rubber track has not been without engineering and technical challenges, namely from operational experiences.

Although trials were conducted in Gagetown, there were some harsh realities that were learned from the rubber track system used in Afghanistan. Heat, increased combat weight of the vehicles, and terrain resulted in a reduced life expectancy for the system. In addition, problems were identified with the rubber compound mixture on some of the new rubber tracks that were deployed with the Mobile Tactical Vehicle Light (MTVLs) that resulted in the tracks wearing out much earlier than expected. Other issues such as nitrogen leaks with the track tensioner and rocks becoming stuck in the sprocket caused additional damages and challenges with the track system. The EMT worked carefully with the manufacturer to analyse the technical failure reports and damaged tracks to develop a better sprocket and a new track tensioner, while the manufacturer reviewed its quality assurance process to provide a more durable rubber compound.

An APC switching to Rubber Track System.

The most significant lesson learned during the deployment in Afghanistan was a number of detracking incidents that occurred on operations in 2008/2009. Based on

the investigation, the track tensioner was becoming separated from the hull which caused the vehicle to de-track. The EMT conducted a technical assistance visit with an engineer from the OEM and quickly developed and implemented a new backing plate modification that has prevented any further de-tracking incidents that are related to the track tensioner.

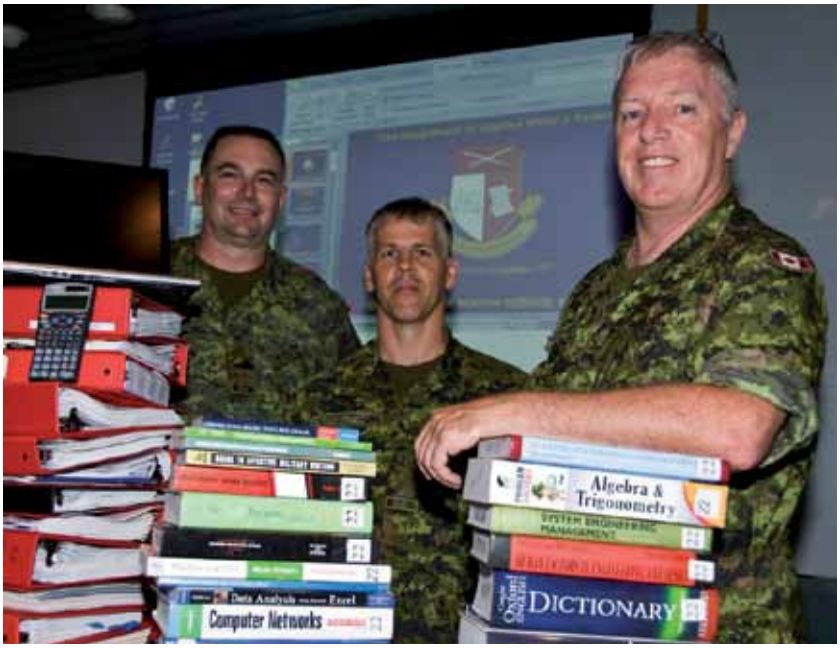
Despite these challenges, the EMT has worked closely with rubber track manufacturers to resolve these engineering issues and continues to receive favourable feedback from the field on the Soucy rubber track system. As a result, personnel from the EMT have started leading training teams in all of the major bases in Canada to provide technical support and expertise to complete the installation of all rubber track systems on the remainder of approximately 80 MTVLs that are still running on steel track in the fleet. It is anticipated that by the summer of 2012 that all TLAVs will be employing the rubber track system.

EME Gets the "AMS Advantage"

Capt G. A. Pudlowski, AMS Student, MPA Candidate, Royal Military College

This past June three young (!) EME soldiers , Captain Grant Pudlowski, and Warrant Officers William Forest and Brad Phillips were 3 out of a class of 28 that graduated from an intensive year-long course at the Department of Applied Military Science (AMS), Royal Military College (RMC), in Kingston. The course, known as the Land Force Technical Staff Program (LFTSP) for the officers and Army Technical Warrant Officer (ATWO) for the NCOs is in a word, gruelling.

The two courses were conducted in parallel with the officers and NCOs sharing the same classroom. The program focused on critical thinking, management and technology, and equipped graduates with a broad knowledge of science and technology along with the tools to apply that knowledge to the operational and training needs of the army and the CF (meaning a job in Ottawa). A benefit of the ATWO program is that graduates receive the Master Gunner qualification. For officers, there is the opportunity to complete a Masters program, either the Master of Defence Engineering and Management (MDEM) for those with engineering degrees, or the Master of Public Administration (MPA)for those with Arts or Sciences degrees.



Our proud EME representatives: Capt Grant Pudlowski, EME Officer, WO William Forest, EO Tech and WO Brad Phillips, Veh Tech.

There is a heavy classroom workload and hours upon hours of homework throughout the year and is dependent on the students having a solid grounding in science, so to that end there was a short, but intensive summer term where chemistry, physics, and math were taught or re-taught. I say re-taught because it is largely high school work but, for most of us, high school was a long time ago.

A partial list of the courses includes a major dose (some say an overdose)

WO Forest & SMG.

of squiggly amps, statistics, CBRN, defence management, vehicles, weapons, ISTAR and engineering. The courses are taught in sufficient depth that 8 of them can be applied towards a degree from RMC.

There were frequent breaks from the classroom for field studies to locations as far afield as Gagetown, Suffield, and Detroit where the students visited technology and industrial manufacturing centres to observe the latest and greatest technological advances, as well as study fluid dynamics. Some manufacturing processes were very interesting, for instance we saw gun powder, and ammunition being made in Quebec, and saw the forging of M777 barrels in the Watervliet Arsenal in New York.

Capt Pudlowski and WOs Forest and Phillips are all posted to Ottawa where there is no PLD, no land duty allowance, houses cost more than in Edmonton, and dress of the day is 3B. What could their motivation possibly be?

For WO Phillips, he was interested because he was in Kingston taking pictures for Army News last year and caught the course on a good day at the range firing foreign weapons. Both Capt Pudlowski and WO Forest were interested in the academic portion of the course, but were not smart enough to do the math to see how much money the course would cost in terms of lost pay benefits!

For those who seek a challenge, the prerequisites of each program can be found in CANFORGENS:

141 / 08 for the LFTSP / MDEM
142 / 09 for the ATWO

or at:

http://www.rmcc-cmrc.forces.gc.ca/aca/ams-sma/pro/index-eng.asp

WO Phillips on Range.

Are you writting an article?

Do not forget:

- Aim around **500 words**
- Indicate the **author's name and** his/her **position**
- Send your **photos** in **JPEG** format with the higher possible resolution
- Specify the **people's name** (or group) as well as the **context** of the **photo**
- Write the **complete technical terms** before using an abbreviation

LG1 Mk2 Howitzer EME OSQ training

Sgt Danny Richard, Weapons Instructor, Maintenance Training Battery, Royal Regiment of Canadian Artillery School

With an already overloaded training calendar, the coming of new technologies and the concern with the army's operational needs, the Canadian Forces School of Electrical and Mechanical Engineering (CFSEME) decided to transfer the LG1 Mk2 Howitzer Occupational Specialty Qualification course (OSQ) to the Royal Regiment of Canadian Artillery School (RCAS) Maintenance Training Battery in CFB Gagetown.

A Maintenance Battery under the wing of the Artillery School? Don't be fooled by the title; you are not dealing with gunners here. We are EME and even if we have a Land Communication and Information System (LCIS) cell in our midst, we teach several Electronics-Optronics (EO), Weapons and Vehicle OSQs.

To facilitate the transfer, two representatives of the Battery travelled to CFB Borden on the 13th of June for a three day task. Working in concert with personnel from CFSEME Weapons Platoon, they prepared the gun and course material for transport to CFB Gagetown. The task went off without a hitch and the following Monday the Battery took possession of its new LG1 MkII Howitzer.

Sgt Paris inspects the LG1 Mk2 Howitzer.

The course itself requires 23 training days which will be used to present 6 specific modules. Through these modules, the candidates will learn: the principles of operation, the type of ammunition, how to disassemble and reassemble the entire system and in the process, perform all tests and adjustments.

« To facilitate the transfer, two representatives of the Battery travelled to CFB Borden for a three day task.»

The course itself requires 23 training days which will be used to present 6 specific modules.

With an upcoming course commencing in August, there is plenty to do. Because it's the first time this course will be delivered here, we have to anticipate our every need. Our first priority was to inspect the howitzer itself, to review the entire batch of lesson plans, to prepare new educational material and create a workable course schedule. All this is done under the watchful eye of the Standards cell, because every thing has to be in accordance with the Qualification Standard (QS).

With the addition of the LG1 howitzer OSQ to our training schedule, the future looks very promising for Maintenance Training Battery and, true to the EME spirit, we will roll-up our sleeves and get the work done.

EME Soldiers Shine during Op LUSTRE

Lt Nick Goulet, Maint Coy, 1 Svc Bn

When Canadian citizens find themselves overwhelmed by wildfires, hurricanes, ice storms or massive flooding the members of the Electrical and Mechanical Engineering Branch are always willing to lend a helping hand. To streamline response to threats on our soil, Canada Command (CanadaCom) was created to provide a single point of contact for civil authorities during Domestic Operations (Dom Ops).

Soldiers sling sandbags during Op Lustre.

This tri-service organization divides the country into six Regional Joint Task Forces which allow each Area's assets including troops, equipment, maintenance and logistical support to be coordinated as necessary. Soldier-technicians are critical to the success of CanadaCom because they support the wide variety of specialized equipment vital to disaster relief efforts.

In May of 2011 a colossal melt threatened to change the landscape of southern Manitoba. In the face of catastrophe, Op LUSTRE provided the CF and CanadaCom with a fantastic opportunity to shine while helping the people of Canada. As soon as the government of Manitoba understood that the approaching "once-in-300-years" flood would engulf the Assiniboine River a request for assistance was sent to Joint Task Force West (JTFW). Within six hours of the request, soldiers from Canadian Forces Base (CFB) Shilo joined the sandbagging efforts, followed by a JTFW Headquarters, Air Force, Navy and Reserve components, and units from CFB Edmonton including 1 Service Battalion (1 Svc Bn). At the operation's peak, more than 1600 CF personnel were on the ground fighting the deluge. Their tasks included filling, transporting and laying sandbags to reinforce existing dykes; monitoring and installing barriers around homes in sectors prone to inundation; and moving troops to work areas.

EME members who took part in Op Lustre.

For the personnel involved, namely the EME soldiers of 1 Svc Bn, spring 2011 had been particularly busy supporting deployment preparations and field exercises. Technicians were pulled off exercise in CFB Wainwright to conduct a road move to Winnipeg. They arrived at 17 Wing Winnipeg worn and tired but were thankful to be welcomed into a fully furnished workshop. While on operations the maintainers helped improve "Tent City," assisted in the extrication of a refuelling truck trapped in a busy intersection, completed repairs on their own vehicles and even helped out 17 Wing with some work. Several technicians helped shore the dykes and others were employed in troop carrying using the Medium Support Vehicle System (MSVS). Though exemptions had to be made to allow the MSVS to troop-carry on civilian roads, and many soldiers had to earn waivers to drive this vehicle, the MSVS turned into the workhorse of the operation. This was remarkable because the MSVS is a recent addition to the fleet, fielded mostly by reserve units and whose second-line maintenance is done through contract.

« In the face of catastrophe, Op LUSTRE provided the CF and CanadaCom with a fantastic opportunity to shine while helping the people of Canada. »

It is difficult to accurately determine the future equipment needs of CanadaCom. The equipment and support concept used by the CF must therefore be robust and flexible enough to be used effectively in Dom Ops. The dependence on the MSVS during Op LUSTRE highlights the changing equipment landscape that EME technicians will face in the future. The deluge of procurement projects for land equipment that involve maintenance and support which fall outside of our traditional sustainment methods may become a challenge. The EME Branch must ensure that it is able to maintain the operational effectiveness of vital equipment, regardless of the theatre of employment. Answering this challenge will continue to earn the Branch praise from supported units and Canadian citizens alike.

EME Guild Charitable Trust I'm in!

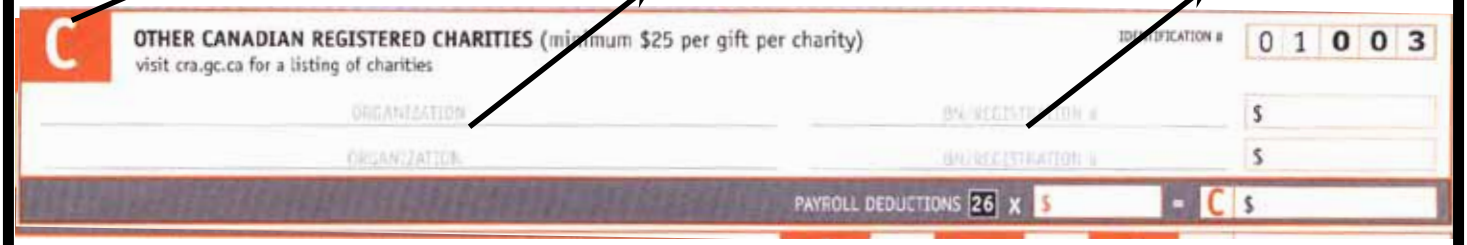
It is now possible to make a donation to your EME Guild Charitable Trust via Government of Canada Workplace Charitable Campaign (GCWCC)!

How can we make a donation via the GCWCC?

1
Fill out section «C» of your GCWCC form.

2
Write the name: « The Guild of the Electrical and Mechanical Engineering Branch Charitable Trust »

3
Write the number: 839087616RR0001



The EME Guild Charitable Trust is a charitable organization that has the objective to promote and ensure educational and benefit activities. It represents the interest of all of those who have ever taken part in the EME Branch. EME once, EME forever.

Ex Monkey Wrench

Capt Jason Vallis, Tech Adjt, 2 RCHA

At the end of March the Maintenance Troop at 2 RCHA had a rare opportunity to take a few days off from production and participate in some professional development. The mandate was for everyone to learn about the overall Land Equipment Management System (LEMS) and to have a chance to learn about some EME history, a more general military history and some political history.

Members of 2 RCHA during their visit at 202 Workshop Depot.

Our first stop on the tour was 202 Workshop Depot (202 WD). We were greeted by Lt Msirdi and Capt Briand who gave us an overview of the work done by 202 WD all the way from 1st and 2nd line maintenance to 3rd and 4th line maintenance and overhaul to actual manufacturing of parts and components. The majority of us have never been to 202 WD and were quite impressed by the wide spectrum of abilities that they have. It was very interesting to see a shop that not only did 1st line maintenance but just down the floor were the milling machines that could manufacture some of the parts that they were using.

The next day, we departed Montréal and made our way to Ottawa for a tour of the Parliament buildings. Our tour guide had a ton of information about past and present governments and the rolls that people play as part of the government. We were treated to a lesson in governmental history and how our system of government has evolved from confederation to our present day political system.

Shortly after touring Parliament, the troop traveled down the road to the next stop, the Canadian War Museum. Here, each section was given a task to complete. First, we had to gather information relating to the EME Branch and then we presented it to the rest of the Troop. Touring through the museum we all got to see how the military has changed from the days of bows and arrows, to muskets, machine guns, and to modern day kit and equipment. During the presentations, everybody talked about the progression from early day to modern day equipment. This gave us a good overview of the extremely adverse conditions in which the previous EME soldiers have worked without all the modern equipment we have. It really gave us a good appreciation for all that we have.

Our last stop before heading back to CFB Petawawa was to DEW Engineering and Development. For those who don't know, DEW is the design and manufacturing company for a lot of the add-on armour kits. The guides and Project Mangers took us all through their operations in very great detail. In the research and development department, we were shown computer generated models and actual models of how the armour reacts in an explosion. The tour of the prototype building let us have a look at some of the present and future projects that are currently on the go including the M113 life extension and add-on armour kitting. On the manufacturing side we were taken through and shown all the different aspects of their manufacturing process.

All of us had a great time in Montréal and Ottawa. We all came away with a better understanding of, not only how we fit into the big picture of LEMS, but also how everyone else fits in it as well from industry all the way to user level maintenance. We all have our roles and we cannot operate without everyone

In front of the Parliament in Ottawa.

working together as a team toward the same goals.

Maintenance troop, 2 RCHA would like to thank Capt Briand and Lt Msirdi for the tour of 202 Workshop. We would also like to thank Mrs Jackie Pothier and the staff at DEW for the chance to tour their facilities.

Key Performance Indicators

Saeed Toolabi, DGMPD PMSO Director General Major Project Delivery, PBA Analyst

Overcoming the shortfalls of the traditional Weapon System Management (WSM), in the new era of performance based contracts, the Key Performance Indicators (KPI) can be a powerful force especially when appropriately defined and used in today's performance based service contracts.

New guidance for In-Service Support Contract (ISSC) for Canadian Forces platforms, effects a whole range of areas from maintenance and supply, to the engineering change process. Although the goal always remains to meet and exceed the operational requirement of an In-Service Support, a new approach to fleet management is nothing but certain. Performance centric contracts are not only geared to meet the Performance Management Accountability (PBA) metrics, but also must be applied to the Optimised System Management (OWSM) Program already in place. With this new approach to contracting we could overcome past shortcomings in training, facility infrastructure, support, tools and test equipment (STTE), parts ownership and also responsibility of GOC in design change in deployable and non-deployable platforms. These new KPIs must support service contracts that are performance based with specific attributable delay triggers, measurements and standards that keep track of performances through an objective KPI. The contribution of parties (Contractors/OEM or GOC) are calculated based on quantitative and qualitative data that objectively measures the equipment reliability, availability and maintainability.

« Attributing accountability in new era of In-Service Support Contract requires precise drivers and Key Performance Indicators. »

We are able to do that through a bottom-up model and design attributes to calculate operational requirements. Performance based KPI metrics must target and measure specific but critical processes that are most important to the success of a platform. KPIs can help us measure how a performance based contract for specific platform is performing and ways in which we can improve on our activities. Furthermore, through these processes the GOC must retain its smart capability and In-house experts to better assess the value for their buck.

For more information on the subject, visit DGMPD website:

http://admmat.mil.ca/dgmpd/en/policies_directives1_e.asp

Buggy Race

Lt Kyle Spindler

Maintenance Company in CFB Gagetown hosted their EME Day on 27 May 2011 to celebrate the 67th birthday of the EME Branch. The Buggy Race, which was the main event, has become quite a tradition on EME Day and one that everyone was waiting for.

Seven vehicles entered the buggy race this year.

This year, seven vehicles entered the competition to see who could come up with the fastest time, the least amount of penalties and the nicest looking buggy. Penalties of five seconds were imposed for racers who missed pylons, did not stop within the "pit stop" boundaries for the tire change, and for every 1 horsepower they were over the 10.5 horsepower limit.

Vehicles came from all over base including one from 4 Air Defence Regiment, two from 2nd Battalion Royal Canadian Regiment, one from 4 Engineer Support Regiment, and four from various sections within Maintenance Company. Most vehicles came close to the required specifications but the only one that met the standard came from Maint Coy SPV section. Other vehicles received minor penalties of between 10 to 20 seconds, however, one vehicle really stood out. The vehicle submitted by 2nd Line AFV had a whopping 49 horsepower! Their penalty before even beginning the race was already 3 minutes and 20 seconds which was longer than most vehicles took to complete the circuit! Needless to say there was no chance for them to win the competition. Overall, it was a very close race between the other six buggies with the winner of the race winning by only a few seconds. The buggy from Maint Coy SPV section ended up winning the race for the second year in a rowwith 4 ESR coming a close second, and Maint Coy Mat section third.

« Overall, it was a very close race between the other six buggies with the winner of the race winning by only a few seconds. »

Not only did racers have to win the race, but they also had to win the "Show and Shine" by having the nicest looking buggy on the track. The judges for the Show and Shine were Col Elvish and CWO Noel who travelled down from Ottawa to enjoy the festivities. Criteria for the Show and Shine was based on 100 points: 20 points for Paint, 20 points for Body, 5 points for Steering Wheel, 5 points for displaying the EME Crest, and 50 points for personal preference. The judges had a very tough time with the amount of creativity brought forth by the talented technicians, but only one could win the Show and Shine. The winner of the Show and Shine this year was 4 ESR's buggy (in the photo above), which had one distinct feature that really caught the eye of the judges. On the front of their buggy was a plaque titled "In Memory of The Fallen", displaying the names of every soldier the CF has lost in Afghanistan.

Overall, EME Day in Gagetown was a great success and was enjoyed by everyone in attendance. Members of the EME Branch are all looking forward to enjoying its 68th birthday next year.

Arte et Marte

EME Day: A Great Challenge!

Cpl Marc Gagnon, EO Tech, 5 Service Battalion

The 67th anniversary of the EME Branch was on 15 May. On 13 May, a variety of festivities took place across the country for the occasion. The celebration at CFB Valcartier was attended by the Colonel Commandant of the Branch, Brigadier-General (retired) Holt, along with members of 5 CMBG, 5 ASG, 34 CBG, 35 CBG, 202 Workshop Depot and 3 Wing Bagotville.

The day started at 0730 hrs with a parade in sportswear during which the members demonstrated their talent by performing the songs Lillibulero and Auprès de ma blonde. After that, the ColCmdt gave a short speech and, in keeping with tradition, the youngest EME member at the base, Corporal Simon Mercier, cut the cake. Then the festivities began.

« Although some members were deployed on OP LOTUS in Montérégie and a number of others are still in Afghanistan, close to 400 people participated in the festivities. »

Some participants headed for the sports competitions (ball hockey, volleyball and horseshoes), while others took part in the games of skill organized by the vehicle technicians. Also, quite a few people made the most of the sunshine and visited the car show and the various booths; there were more exhibitors than ever before this year.

The site was laid out like a military camp, with 40 modular sections for the exhibitors, a dining area of 12 other sections and a weather haven set up for Ubisoft. The company presented a video game competition on a giant screen, and players competed to win a shooting game called Splinter Cell. That was one of the highlights of the day—the winners were lucky enough to go home with a collection of Ubisoft games.

Another great success was, of course, the traditional all-ranks race, with a new twist this year. Each participant was partnered with an opponent. Both of them had to put inner tubes around their waists, and those tubes were connected by a rope. The goal for each player was to be the first to reach an iron stake with the Branch's colours placed opposite his/her rival. That was no easy task with the inner tubes bouncing off one another!

A new twist for the all-ranks race. From left to right: Sgt JRR Carrier, Veh tech, 3R22R, Sgt AP Pellizzari, EO tech, 3R22R, Art JB Duguay, Veh tech, 5 CSB.

To wrap up the day, various prizes for the sports competitions and door prizes were handed out. The atmosphere of camaraderie was second to none. And of course, the beautiful sunshine, which we didn't see much of this May, was a big part of the day's success.

Although some members were deployed on OP LOTUS in Montérégie and a number of others are still in Afghanistan, close to 400 people participated in the festivities. Organizing this special day was quite a challenge. Our goals were to be innovative and to make everyone as happy as possible. So the challenge next year will be to outdo ourselves again in order to provide our members and guests with an even better anniversary celebration. Thank you to the volunteers, sponsors, and everyone else who made this an event to be remembered!

Arte et Marte!

EME Celebrations at Op LOTUS

Capt Mathieu St-Maurice, Maint O 2 R22R

On 13 May 2011, preparations for the EME day on Op LOTUS were underway. Around 1500 hrs, the TF Maintenance Platoon received a call to tow an LAV III that was stuck in the shoulder of 11th Avenue in Saint-Blaise-sur-Richelieu.

Craftsman Maxime Mayrand, who returned just in time from towing the vehicle to receive the Comd's Coin. From left to right: CWO Despins, Craftsman Mayrand, MWO Guillemette (in the back), LCol Bernard and Capt St-Maurice.

The wrecker was deployed immediately. The crew arrived at the incident site, assessed the situation and saw what had happened. The avenue was half as wide as an LAV III, the LAV III had tried to drive around a vehicle on the side of the road, and its left side had got stuck in the shoulder. The roads in that area had all been saturated since the beginning of the floods, and the weakened shoulder was unable to support the 17-ton LAV III.

At first, the crew attempted to recover the vehicle by pulling it backwards with a winch. But, because the angle was limited and the ground was weak, the vehicle just sank deeper. Master Warrant Officer Luc Guillemette used his experience and ingenuity to reorganize the recovery more effectively.

Preparing for the recovery on 13 May 2011 on 11th Avenue in Sainte-Blaise-sur-Richelieu, where soldiers from the assistance team laid sandbags in front of the LAV III to solidify the ground.

The wrecker did a U-turn, then the new strategy was set in motion. Sandbags from the convoy's MSVS (8T) were laid in front of the wheels in order to reduce the suction in the clay and prevent the vehicle from sinking farther into the ground. Then, the stuck vehicle was attached to another LAV III, which combined its efforts with those of the wrecker's winch. Even with the winch's hydraulic pressure operating almost at its maximum, the vehicle barely budged. After a few long minutes and after readjusting the traction cable, the LAV III was finally freed from its unfortunate position.

The recovery was complete just in time to get back for the EME dinner organized in the maintenance lines. The Commander of DOM TF (L) OP LOTUS, LCol Bernard, guest of honour, explained the TF's situation to the EME members from all of the sub-units gathered for the occasion. He also presented Coin #84 to Craftsman Mayrand, who is currently in 2 R22R Maint Pl completing his QL4, for the professionalism he shows on a regular basis and the dedication he puts into accomplishing every task assigned to him.

After that, we enjoyed a few slices of pizza and soft drinks together.

What's happening in the world of...
Materials Technician

CWO Trepanier, DGLEPM, Materials Technician AOA

The outgoing Occupation Advisor, Maj Justine Mumford, the incoming Occupation Advisor, Maj Sonia Brais, and the Assistant Occupation Advisor, CWO Marc Trepanier, would like to thank the Branch members for their support during our 25th anniversary but more specifically the Materials Technicians community, serving and retired members, that have made this anniversary one to remember.

I would like to start this column by expressing my most sincere thanks to Maj Mumford, who for the last year has served as Occupation Advisor. I can attest to her passion for the trade and for the soldiers within the occupation. She has been working to advance key issues which had been identified last September during our working group. I would also like to welcome Maj Brais in her new function of Materials Technician Occupation Advisor. Maj Brais shares the same passion for the occupation and she is ready to face the upcoming challenges.

On the top of the list of challenges is certainly Non Destructive Testing (NDT). NDT has been with the trade for many years however it was overlooked in its application. Afghanistan has, like it did for so many other things, shed a different light on the way we support our equipment. Survivability surely came on top and for us as an occupation it means to develop our skills and knowledge in NDT in order to deliver sounds repairs on armoured vehicle. In the past year, a tremendous amount of effort has been done to develop NDT delivery. We will soon enter into the next phase which will be to establish delivery of the instructional package at different levels of training.

Another aspect of our occupation that's being looked at requiring a new face lift is Sea Container Management. About 15 years ago the CF could account for a few hundred containers. Today there are more than 7000 containers and the fleet keeps on growing. Containerization of our equipment is becoming more and more common. This is making us look at the way we deliver trg and manage containers. In the upcoming year, Mat Techs will be involved with inspecting and certifying containers to set up the rollover of this equipment to DRMIS.

It has been a great year and once again Materials Technicians across the CF are recognized for their hard work and remarkable ingenuity. On the behalf of the Occupation Advisor, I want to pass on congratulations for a job well done.

Before closing this column, on behalf of all Materials Technician I would like to give our best wishes to CWO Francis (Frank) Ramsay (photo inset) on his retirement. Frank served for 36 years and has occupied many positions throughout his career such as ETSM and RSM of Tech Svcs Branch in Gagetown. He also occupied the chair as Assistant Occupational Advisor before moving on to DGLEPM Division CWO. He really represented the true meaning of Arte and Marte by having the EME Branch at heart and being unquestionably a true Materials Technician whose insight has helped to make and earn the respect this Occupation receives today. Frank, once again Thank you and Best Wishes to you and Cheryl.

CWO Ramsay, previous Materials Technician AOA, retires after 36 years of service. He really represented the true meaning of Arte and Marte by having the EME Branch at heart and being unquestionably a true Materials Technician whose insight has helped to make and earn the respect this Occupation receives today.

« In the upcoming year Mat Techs will be involved with inspecting and certifying containers to set up the rollover of this equipment to DRMIS. »

THE M777 HAS FINALLY COME TO CFSEME

Weapons Technician Electronic Optronic Technician

Capt F.W. Hawes, 2IC Art Coy

For years, Weapons Platoon and the Electronic Optronic Platoon of Artisan Company have been instructing maintenance of the LG1 and C3 105mm howitzers, and have been patiently waiting for the M777 to come to the Canadian Forces School of Electrical and Mechanical Engineering (CFSEME).

Since entering service in 2006, the M777 155mm towed howitzer technician courses have been mostly instructed by the United States Army, Marine Corps and the United Kingdom, due to the pressing needs of the Afghanistan campaign and small number of M777s in service.

The M777. Left to right: MWO J.T Yoshida (Senior Technical Instructor), Maj I Clarke (REME, Artisan Company Commander), LCol P. Fuller (Commandant CFSEME) and CWO J.A.R. Rodrigue (RSM CFSEME). Photographer: Cpl C. Wilkinson

The M777 uses a digital fire-control system to provide navigation, pointing and self-location, allowing it to be put into action more quickly and has a range of 24 km. The M777 itself only weighs 3175 kg, which means it can be moved by a Chinook Helicopter or a Medium Logistic Vehicle – quite a feat for such a large gun. The Canadian M777, in conjunction with the traditional "glass and iron sights/mounts," also uses a digital fire control system called the Digital Gun Management System (DGMS) produced by SELEX with components of the Indirect Fire Control Software Suite (IFCSS) built by the Firepower team in the Canadian Army Land Software Engineering Centre. The M777 is also often combined with the new Excalibur GPS-guided munition, which allows accurate fire at a range of up to 40 km. This almost doubles the area covered by a single battery to about 5,000 km^2.

As of 5 April 2011, CFSEME now has a gun fresh off the factory floor and the combat experienced Weapons and Electronic Optronic technicians on staff to instruct future M777 courses. CFSEME will conduct the first courses starting in the Fall and Winter Fiscal Year 11/12. The M777's new home will be at the Weapons Platoon Bldg A-245, until the new add on is complete.

« The M777 is also often combined with the new Excalibur GPS-guided munition, which allows accurate fire at a range of up to 40 km. »

The Husky
Vehicles Technician

Cpl Pablo Dunn-Dumouchel, Veh Tech, 202 Workshop Depot

The Husky has a very specific job to carry out overseas, which is to locate enemy threats such as mines and IEDs buried underground. The high success of this vehicle has proven itself indispensible during operations in a hostile environment.

The Husky is a two vehicle convoy, with the primary vehicle being equipped with an IVMMD (Interim Vehicle Mounted Mine Detection) MK II system that detects and marks explosive charges while the trailing Husky pulls the MDT (Mine Detonation Trailer) that will destroy the explosives by pressure detonation. The Husky is a one person armoured vehicle, with the driver seat situated at the highest point.

Protection to the operator is paramount and as such they are surrounded by several armoured protection technologies. Additionally, a noticeable feature of the Husky is its V-shape undercarriage. In the event of a blast from below, the V-shape hull design directs blast pressure out and away from the hull and operator. The front and rear wheels are attached by tubular frames called modules. These modules are connected to the hull via four mounting pins on both sides of the frame and the mounting brackets are fastened by sheer bolts. This mounting system allows the modules to break free and clear of the vehicle in the event of an accidental explosion. This permits even more blasting pressure to be released away from the vehicle and operator. These modules can be quickly replaced and returning the Husky back into service in a very short timeframe. Another interesting feature of the Husky is the overpass tires that are designed to minimize vehicle weight transfer to ground, thereby reducing the possibility of activating mines and other pressure sensitive explosives if driven over.

In the event of a blast from below, the V-shape hull design directs blast pressure out and away from the hull and operator.

The Canadian Forces should be proud in the purchase of this effective lifesaving vehicle. Coupled with the advanced mine detection system, the Husky is quite the machine to repair and operate. With advancements already made to the new MK III, such as a steerable rear axle, the Husky will no doubt be a fixture on the Canadian battlefield for years to come.

The mechanical power behind this heavily armoured vehicle is a Mercedes Benz, turbo charged, vertical in-line, six cylinder engine that delivers 237 hp and 634.3 ft lbs torque. Together with the Allison SP2500 transmission this is more than adequate to carry the 8.24 tons Husky, as well as the 22.27 tons of the MDT (Mine Detonation Trailer). We had the opportunity to receive training from the CSI institute (Critical Solutions International) in September of 2010 when the company's instructors came to CFB Longue-Pointe to provide our technicians with a familiarization course on the Husky MII and its equipment. The course was two weeks in length during which time we learned the basics of assembling the vehicle and its various components. We were also trained on the mine detection system and how to inspect and maintain the Husky's specialized equipment. With limited sustainment support in place for the Husky, we have had to develop all aspects of service and we now have a Husky section dedicated to learning and developing our skills on this vehicle. We look forward to much more work and experience in the future with these vehicles.

The Dark Side of EME
ATO and Advanced Ammunition Engineers

Capt Kayda Wriedt

During my first posting after Phase 4, I decided to apply for the ATO course. My motivation was to mix things up, make my life more interesting, I mean really, what could be better than blowing stuff up?

During the course's first 6 months, at Cranfield University in Shrivenham, United Kingdom (UK), we were taught subjects including ballistics and explosive chemistry which would serve as the base of our ATO knowledge.

Following the first 6 months, the course moved to the Defence Explosives Munitions and Search School (DEMSS) Kineton. This phase covered a wide spectrum of areas including land service ammunition, ammunition storage, guided munitions and explosive licensing. When we were on the conventional munitions disposal (CMD) phase, this was where we got into the fun part, with hands on the explosives...fantastic! Any day on the demolitions range is a good day, and we had a few weeks worth.

Capt Wriedt on the field.

Now I must mention the perks of completing the ATO course in the UK. First, you're in the UK! Second, there was the adventure of a mild culture shock, any preconceived notions I had about the UK and the British Forces went right out the window on the course. The British are both professional and outstanding to work with. They also know how to make mess life fun!

Currently, I am working in Directorate Ammunition and Explosives Management and Engineering (DAEME) as an ATO supporting in-service ammunition for the Army, Air Force and Navy. I'm using my Engineering degree, which is a rare treat and I'm not writing reports all day either! I'm also involved in trials, providing advice to higher comds and other organizations on ammunition and explosives issues. Examples of things I have done include: being involved with an ERYX missile trial, on a WES tank simulation cartridge trial and I will be going to a conference in the UK to brief on Task Force Afghanistan Ammunition Reconstitution with the J4 Ammo. The job keeps me busy, but I like it! It is diverse and I'm gaining invaluable experience that I could never have gotten in a traditional EME position.

I would be remiss not to discuss the career killer issue. I believe this perception couldn't be more wrong. The course has opened a new world to me, as I now have this amazing stream that I may tap into throughout my career. Alternatively, having ATOs and Ammunition Engineers in the EME community is a valuable asset. The stream within the Branch should be embraced, encouraged, and effectively managed. The EME Branch is blessed with a wide variety of capabilities, I am proud to add Ammunition Technical Officers to those capabilities.

« The course has opened a new world to me, as I now have this amazing stream that I may tap into throughout my career. […] The EME Branch is blessed with a wide variety of capabilities, I am proud to add Ammunition Technical Officers to those capabilities»

An additional note; the ATO course is being repatriated to Canada starting early next year. While it will no longer be as exotic as candidates will go to RMC Kingston to train, the training itself will not change very much, especially the "blowing things up" part, and hey, who really minds a year in Kingston right – Queen's, the sights and all?

EME History Quiz

Changing Equipment Lanscape

Rebecca Mardell, ADM(Mat), DGLEPM, DAEME

What is in use today would once have been considered the highest of technological achievements, just as many artefacts used by soldiers in the past represented the capabilities of their era. The items included in this article were in use during WWI and WWII, and would have been used or maintained by EME members during those wars. Can you identify them? Answers page 30.

1

2

3

Soldier of the Year for a Craftsman at 5 CER

Capt J.R.J. Duguay, Maint O, 5 CER

Photo from left to right: LCol D.A. MacIsaac, CO 5 CER, Craftsman St-Amour, Veh Tech and CWO J.N.M. Rivard, RSM 5 CER.

In 2009, the outgoing Commanding Officer of 5 Combat Engineer Regiment (5 CER), LCol Carignan, presented the Ubique trophy to the soldier of the year. As 5 CER was on OPERATION HESTIA in 2010, this year was the very first year that the trophy was awarded to a member of the regiment. To be eligible for the trophy, the soldier must have between 24 and 36 months of service and be outstanding in terms of physical fitness, bilingualism, education, professional development, qualifications, performance and potential. This year, the Ubique trophy for soldier of the year was awarded to Craftsman St-Amour from the Maintenance Troop for his excellent work and his accomplishments during the year. This distinction is awarded to a single individual and it is seen as a great sign of recognition for the EME technicians' work in 5 CER over the past year. Once again, the maintenance technicians have shown their stuff and received recognition from the units.

Regional and National Awards 2011

Branch Advisor National Award Winner and Regional Award Winner for the NRC, 202 WD, LFNA and the Operational Commands

MCpl Schamerhorn

MCpl Schamerhorn unparalleled technical skills enabled him to provide remarkable support to CANSOFCOM operations. He reverse engineered factory weapons, discovering design flaws that he rectified through machining techniques. His design and fabrication of multiple custom tools for diagnosing, calibrating and repairing weapons, have improved the overall efficiency of the Unit's Wpns Techs and prevented the section from being overwhelmed by the extremely high operational tempo and extensive Unit holdings.

Regional Award Winner for LFWA

WO Hrycyk

WO Hrycyk represents the highest standards of leadership, technical skill and Espirt de Corps within the EME Branch. His exceptional dedication, fitness and commitment to excellence were evident when he completed the 1 CMBG Ex MOUTAIN MAN event and led EME craftsmen through the challenges of the demanding 1 Svc Bn patrol competition.

Regional Award Winner for the Air and Maritime Commands

Sgt MacDonald

Sgt MacDonald is the definition of professionalism and dedication within the CF. His phenomenal performance as 17 Wing, CFB Winnipeg Workshop Planner was the single biggest contributor to the extremely successful implementation of DRMIS into the Air Force.

Regional Award Winner for LFAA

The Jiffy Jeep Demonstration Team

Through their personal dedication and professional skills, perfected over months of rigorous practice the Jiffy Jeep Demonstration Team was able to smoothly and efficiently perform their duties under extremely stressful situations. Their performance represents the skills and ingenuity of all EME technicians in the Canadian Forces at home and abroad.

Regional Award Winner for LFCA

Sgt Reid

Sgt Roger Reid has continuously performed at the highest levels quickly earning the trust and confidence of his subordinates and superiors alike. He is a role model for technicians and leaders in the EME Branch and an asset for those who serve with him.

Regional Award Winner for LFQA EME Branch Advisor

Sgt Dugas

Sgt Dugas, courses planner for driver training at the LFQA EME center technician, brought innovative solutions to maximize the skills of all EME technicians. He is an ambassador extremely proud of our colors. Sgt Dugas is a source of motivation and serves as an example for all LFQA technicians.

Regional Award Winner for CFSEME, LFDTS and CFSTG

MWO Yoshida

MWO Yoshida played a key role in driving forward the development and modernization of Artisan Company's training, ensuring that it continues to deliver focused and relevant training to all three artisan trades. He is an example to all the staff and students in the company and a leader who ins-

Congratulations to all national and regional 2011 winners!

pires his cadets.

Branch Advisor's National Cadet Award Winner

MCpl Hofman-Monker

MCpl Hoffman-Monker stands out amongst his peers as a great leader and example to other EME cadets in his Unit. He completed his mandatory training in only a year and a half and won the Top Junior Cadet award in his first year. MCpl Hoffman-Monker volunteered many hours in his community, won the 2010 Provincial championship in snowboarding and maintained the gold level fitness standard in the Cadet program.

Best EME Reserve Craftsmen Award 2011

Cpl DG Weppler

Cpl DG Weppler, Vehicle Technician of 41 Svc Bn has been selected as the Best EME Reserve Craftsmen. He enlisted in 2002 completed his QL3 training in Borden last summer as the top candidate. He is an active member of the Unit, parades regularly and participated in all major Unit exercises. He is a teacher but has also completed a Mechanical Engineering degree. Cpl Weppler is also an active member of his community. Recently he participated in Operation Goodwill of 41 Svc Bn. The objective of the operation is to collect donations for local Food Banks and Women's Shealters.

EME Bursary Award Recipients

Caroline Boucher
Meagan Jackson
Alexandre Bourgouin
Monica Boudreault
Jacqueline Cahill
Andrew Ricard
Casey Thompson
Julia Ducharme
Jacob Lajoie
Stephanie Beauvais

EAOC EME Bursary Recipient

Elizabeth Fyfe-Mitchell

Commendations

CDS Commendation

LCol McKenzie

For outstanding professionalism and dedication as chief of national coordination and co of the Joint Task Force Afghanistan HQ, Feb to Nov 09

CDS Commendation

WO Brousseau

For professionalism and dedication as the information officer with the National Support Element in Afghanistan, Apr to Oct 09

CLS Commendation

LCol Beaulieu

For his outstanding professionalism and dedication as Army G4 plans in developing Force 2013 Service Battalion and Combat Service Support strategies, Jun 09 to Jun 11.

... Answers for the History Quiz

1-Mess Kit

The half-moon shaped mess kit dates back to the Napoleonic war and was used by both the British and Canadian troops until it was replaced by a new design in 1937, potentially due to the fact that it contains lead. It comes in three parts: the main storage unit, a shallower insert and a lid. The insert includes an attached fold out handle for use in cooking.

2- Screwdriver

This large and bulky flat-headed screwdriver was manufactured in 1943 by William Hutton And Sons Sheffield, and was used in WWII. It most likely included in a tank kit or with heavy vehicle repair kits.

3- Helmet

The helmet pictured is the Steel Mk 1, which was invented by Britain John Leopold Brodie in 1915 and heralded the reintroduction of helmets to most military troops. The helmet linings, made of leather, asbestos, felt and lint, were hand made and often asymmetrical, which made the helmet uncomfortable and provided a poor fit for the soldiers. Pictured next to it is a Mk II helmet from WWII with camouflage netting and a CG634 that is in use today.

2011 Order of Military Merit

Capt J.D. Hill
CWO J.B.A. Bergeron
CWO J.E.G. Godbout
CWO J.P. Savoie
Sgt R.W. Coughlin
Capt P.J. Lee (2010)

The award was established to provide a worthy means of reognizing conspicuous and exceptional service by members of the CF, both Regular or Reserve.

EME Coin of Excellence

Coin 010 - Capt Taylor

Presented 27 May 2011 by Col Elvish
Capt Taylor has performed with distinction as the Station Technical Services Officer for CFS St John´s. In addition to his oversight of Station Transport, Maintenance and Construction Engineering sections, he has been responsible for local management of the 150 Million Dollar Pleasantville Consolidation Project. Capt Taylor exemplifies the finest characteristics of the EME Branch.

Last Call

Serving Members

Claridge, Michael (Cfn)	Aug 24, 2011
McPhail, Stephen Hector (Sgt)	Aug 29, 2011
Pilote, Olivier (Cpl)	Aug 25, 2011

Retired Members

Bray, Ned (MWO Ret'd)	June 2011
Coombe, James H, (Maj Ret'd)	May 25, 2011
Cooper, Kenneth RH,	July 1, 2011
Irwin, Lawrence (MWO Red'd)	June 7, 2011
Kirkham, Arnold T,	March 19, 2011
Laird, Donald L,	May 26, 2011
Macdonald, Harry K	July 24, 2011
Marshall Tom (Lcol Ret'd)	April 2, 2011
Souliere, Damon	28 May 2011
Thibaudeau, Alexander	27 June 2011
Walsh, Howard Vern (MWO Ret'd)	17 Jun 2011

If you know anyone who has been missed from this list or if you would like to send a message or condolences to the families, please contact the regimental Padre, Rev. Don Chisholm at the following address: revdonch@cogeco.ca

New Zealand Chief of Army Commendation

Major Willard McCutcheon is on exchange with the New Zealand Army where he holds the appointment of Equipment Management Group Leader Light Armoured Vehicles at Logistics Command (Land).

Recently the LAV Equipment Management Group, which consists of seven personnel, was awarded a New Zealand Chief of Army Commendation for their ambitious project to improve the survivability of a number of New Zealand LAV which were being prepared for deployment to support the New Zealand Provincial Reconstruction Team in Bamyan Province, Afghanistan.

Major McCutcheon, on behalf of the Equipment Management Group Light Armoured Vehicle, receiving the award from Chief of Army, Major General Tim Keating, MNZM.

Photorama

Army Run
Ottawa

This is a picture of a portion of the EME participants in the Army run 2011. This wonderful picture was taken right after the half-marathon run. Try to count how many EME CWO there are in the picture? All to say, that the weather was excellent and the leadership of the Branch, both officers and NCM, were present to support our soldiers. Congratulations to all participants and see you next year.

Photo and text: CWO A. Bergeron

Text: Annie A.-Bélanger **Photos: Capt J-F Briand, Roger Saillant**

Discovery Days
202 Workshop Depot, Montreal

More than 3500 visitors, families, friends, partners and student, answered present to the 202 Workshop Depot employees' invitation on September 16 and 17, 2011. Employees were proud to present their unit and show their knowledge to visitors. Buildings visit, vehicle tours, obstacle trail and reconnaissance patrol for kids, military music, Jiffy Jeep challenge, exhibition of old and actual artillery pieces and military vehicles, crush of a car by a Leopard tank... These were busy days!