



EME Journal

Issue 1/2006

The Magazine of the Electrical and Mechanical Engineering Branch



Equipment



Looking at the new equipment, one can only be impressed by the evolution of the equipment in Canadian Forces. It is with pride that one recognizes, how EME personnel have adopted to the rhythm of the new technology and therefore perpetuate the trades of our valorous predecessors.

The statue depicted on the background and cover page remind us of the contribution of these pioneer craftsmen. Those who taught us our trade, and whom are part of our history.

Arte et Marte



Photo : Roger Saillant, 202 WD



This photo and cover photos: Roger Saillant, 202 Workshop Depot

EME Journal

The Magazine of the Electrical and Mechanical Engineering Branch



Branch Formation: 15 May 1944
Branch Motto: Arte et Marte
Branch Patron Saint: Saint Jean de Brébeuf
Branch Colonel Commandant: Colonel (retired) J.G.G. Nappert, CD
Branch Advisor: Colonel D.L. Wingert, CD
Branch Chief Warrant Officer: CWO A.C. Dalcourt, MMM, CD

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To submit an article

The theme for the next issue of the EME Journal is ***Equipment New and Old.***

We invite you to send us your stories relating to the theme (max 800 words). It is preferable if your article is accompanied with pictures. Personnel should be identified in all cases, with captions by rank, initials, surname, trade and unit. Please do not paste the photos in the MS Word documents, send pictures as a separate file (JPEG format, 300 dpi).

The deadline for submitting your articles is postponed to 31 July 2006.

The Journal staff reserves the right to modify the texts according to the available space.

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Arte et Marte

Branch Advisor's Message

By: Col D.L. Wingert, EME Branch Advisor



Do you remember the first time you walked into a Workshop? I do. In 1976 I walked into Building K3, CFB Gagetown

when my first ET quickly captured me and my life changed. Last month I had the opportunity to visit Building 324 in Valcartier and I realized that things have changed in the last 29 years. For example, I suspect we no longer use varsol to wash the floor, the air tools are a little quicker than the handtools and a little bit noisier. The air is cleaner in the Workshop today although I swear the coveralls and the sinks for washing the hands haven't changed. Certainly, the ETs are the same, D personalities or simply put, grumpy and dominating old men and women.

Some things change and others don't. When I drove into the K lines 29 years ago we still had the Centurion tank. I remember the Warrant Officer, who was responsible for a large section of vehicle technicians who lived and maintained the tanks out at Worthington Tank Park. I think of that Warrant Officer a lot. After all, thanks to him I earned seven days

of extra duties within a week of my arrival in Gagetown. I saw this Warrant Officer lead a very rough looking section of technicians who worked around the clock weeks on end in the foulest of New Brunswick weather without more than a few hours down time at home each week. It certainly wasn't a quality of life posting like many tank technicians who were posted to Lahr, Germany. How could anyone inspire such teamwork and personal dedication to complete the job knowing very well that the tank would only run a few more kilometers before breaking down again? Even the technicians who arrived in Gagetown with Air Force backgrounds and who initially kicked and screamed as they loaded the Fitter or ARV for the first time quickly became close 'family' members. The day the last Centurion was parked the Warrant Officer retired, replaced by a Warrant Officer who undoubtedly poured his heart into the then new Leopard.

It was then, in a short period of time that I learned about EME Workshops and the technicians. The actual Workshops may change, but, the war stories that we can all tell, remind us that the technicians are essentially the same.

In the last year, we have seen a few more 'experienced' technicians

retire. Their Centurion tank has been parked. They tell me that we are reaching a bow wave of technicians who are reaching retirement windows. We will wish them a happy retirement and God's speed but their retirement is only a minor setback. You never really retire from the EME family and there are many technicians who will step up to the newer challenges.

Throughout the last years the Branch Advisor has spoken/written of the change agenda within the Department and Canadian Forces. Although you probably know quite a lot about some of this change, we will use this forum to keep you aware of the major developments. As well, the Branch will soon introduce a new Branch Strategic Management Plan to make sure that we participate in the right or key activities to ensure we meet the commanders' operational requirements. In the end, some things do not change. The operational commanders still require the EME technicians, the Warrant Officers, the D personality ETs, and, yes, even the officers. After all, who else will do the extra duties.

DGLEPM Sculpture donated by BGen Holt

By: Maj F. Bernatchez, Executive Assistant, DGGLEPM



On 28 Oct 05, BGen (Ret'd) Peter Holt, OMM, CD, offered to DGGLEPM a very impressive departure gift. Indeed, it was a woodcarving representing the logo of DGGLEPM. .



This modern looking logo shows DGGLEPM as an organization of ADM(Mat) focussed to support the Army, our main customer. The bar bearing the motto identifies the road that we will travel together to create the innovative support required to keep

pace with changes in technology, those of the Armed Forces and those implemented in ADM(Mat).

The Latin motto, "Novus Portare", loosely translates to "Innovative Support", and reflects the innovative manner in which the Division must approach the support of modern equipment to meet the challenges of new technology, staff reductions and the desire to provide the best possible service to the Army, Navy and Air Force. The motto also recognizes that it is the members of DGGLEPM who are the source of the innovation and force behind the support provided to the Canadian Forces (CF) and its land equipment.

This splendid work, completely hand carved in only one piece of basswood, was realized by Capt André Breau,

EME. Capt Breau has been carving for more than 20 years and teaches carving at the Centre visuel des arts of Orleans and at his own school of sculpture via Internet (National Woodcarving School www.2carve.COM <<http://www.2carve.COM>>)



BGen (Ret'd) Holt occupied the position of DGGLEPM from June 2002 to May 2005.

Branch Chief Warrant Officer's Message

By: CWO Dalcourt, Branch Chief Warrant Officer



It is obvious to me that our Branch Esprit de Corps is still high. Yes you will hear some Branch members with many years of

service say that morale is not as high as it use to be. I remember hearing the same when I was a Cfn many moons ago from "older" Branch members. We always tend to underestimate ourselves as individuals and as a Branch. Yes there are many concerns that need to be addressed but I have also seen a lot of positive during my visits this past year. EME Branch drive and ingenuity still lives on. A recent example of this is the performance of the Gagetown EME Jeep Team at the 2005 Halifax Tattoo (see page 25).

The EME Branch has been extremely successful in maintaining land equipment since the RCME Corps was formed. The way we have been trained as technicians, our can-do approach to getting the job done, no mater what, and our Branch Esprit de Corps are some of the main reasons for this success. Esprit de Corps and can-do attitude are ingrained in each one of us through a sense of belonging and

believing in each other and what we do. But the way we train must change along with the evolution of the equipment we maintain. We trained a certain way to repair the "old vehicles and land equipment" for many years dating as far back as the late '60s.

The rapid advance in technology of our new fleets of fighting vehicles and new equipment, along with increased demands to reduce training time at CFSEME forced us to rethink our training methodology and implement changes. Many discussions were held at all levels within and outside the EME Branch over the past four years about how we train as technicians. Some of these discussions became very emotional and heated. In the end, decisions were made on a new approach to training and these decisions have not gained the approval of all Branch members. There is almost always more than one way to reach our goals and it is normal not to have consensus on issues as important and complicated as this one. This new way of training is not a perfect solution; there are no perfect solutions. Every year we will have to modify how we train in order that we may adapt to changes in equipment technology, and yes, Army and CF Transformation. I am confident that

we will rally together as a Branch, as we have done many times in the past, to make our new training approach successful, which will result in continued success in repairing the "new vehicles and land equipment" of the CF.

Arte et Marte

STUDENT SCHOLARSHIP



EME student Scholarship awarded to Ms Kaithlyn McNutt. The cheque was presented by Col D.L. Wingert.

Mission Support EME Fly-away Kits

By: Lt J. Faubert, 1 Cdn Air Div, Winnipeg

The AFSC project is facilitating a more responsive, expeditionary and capable Air Force in providing close support to CF contingency operations. A key element in meeting this aim is having trained personnel and serviceable equipment ready to execute deployed support tasks. In late FY 05/06 opportunity funding provided an immediate injection of money to expedite the procurement of deployable support equipment. One of the key functional areas that required deployable equipment was the EME section of the Log Flight. AFSC provided \$280,000 to

purchase hand tools and deployable containers to store them in as a mission-ready package, known as EME fly-away kits.

AFSC worked with A4 EME and the EME sections at the six MSU locations to identify suitable containers and tools for the fly-away kits. "Having the right type and amount of equipment is paramount to

mission success in any operation," said LCol Russ Mann, AFSC Project Director. "AFSC will help our teams deploy with confidence by ensuring personnel have access to and are trained on the kit they will use in theatre. Vehicle technicians are a key part of the mission support squadrons that are integral to the Air Expeditionary Units described in our new Defence Policy."

"The deployable tool boxes include hand tools required by a vehicle technician to perform his maintenance tasks," explained

CWO Garry Nelson, A4 EME who played a key role in ensuring each MSU unit had relatively the same fly-away kit configuration. "They include tool boxes, wrench and socket drive sets as well as a wide variety of screwdrivers, hammers, chisels, pliers, punches, drill bits, hacksaws. Tool Crib items include booster cables, torque wrenches, threading sets, funnels, pneumatic drive sets, flaring tool kits, a floor crane, brake service kits, portable grinders, and floor jacks."

Although there are still a number of tool crib items that must be

...continued page 29



Liberation of the Netherlands 60 years later

By: Cfn (Ret'd) Joe Ordon



My name is Joe Ordon and I was selected to represent the RCEME Corps on the Veterans Affairs Canada pilgrimage to

commemorate the 60th Anniversary of the liberation of the Netherlands. My wife, Marion, and I left on the trip on Friday, 29 April; visited the Canadian War Museum 30 April; flew to the Netherlands, 1 May; visited Groesbeek Canadian War Cemetery, 3 May; visited Holten Canadian War Cemetery, 4 May; attended a private wreath laying ceremony at Groesbeek Cemetery, 5 May; attended ceremonies and a reception at Het Loo Palace, 6 May; visited Reichswald Cemetery, 7 May; participated in the Veteran's Parade in Apeldoorn, 8 May; visited Camp Westerbork and Arnhem, 9 May; returned to Canada, 10 May; and returned to High River, 11 May. I did my very best to represent all RCEME/EME personal well on this trip.

After a flight to Ottawa and a visit to the War Museum we, Marion and I, along with 120 other veterans and caregivers, boarded a DND bus for our flight to Eindhoven Military Airbase in the South of Holland. An Honour Guard of present day military personnel greeted us. We were transported to hotels in the

Apeldoorn area from where we were bussed each day to attend various functions throughout the country.

The countryside was beautiful and green almost park like but unfortunately the tulips had finished blooming. All the towns and villages were decorated with streamers and Canadian Flags. I didn't remember that much forest and crown land and the roads are beautiful. Not at all like the muddy areas we had to fight through sixty years ago.

On May 3rd, we attended a Remembrance Day service at Groesbeck cemetery where an estimated 8000 Dutch citizens were in attendance. We later returned there for a private wreath laying

ceremony on May 5 where I was asked to lay the wreath for the Royal Canadian Electrical and Mechanical Engineers Corps. It was very emotional for the veterans. We also attended a service at Holten Cemetery where 1355 Canadians are buried. It is a beautifully maintained cemetery in a quiet forested area. The school children laid flowers on each grave while helicopters flew over dropping 1355 poppies.

On May 4, Remembrance Day, the veterans were invited to a "Meet and Greet" at the military camp at Harskamp. It was there that I met a young Canadian soldier, Cpl Ed Johnston, from Garrison Edmonton serving in the present day version of my Corps now called Electrical



Joe Ordon laying the Corps/Branch wreath at Grosbeck Cemetery.

Liberation of the Netherlands 60 years later (continued)

Mechanical Engineers. He stayed at my side all evening and was at the airport to see us off when we departed May 10. I hope to keep in touch with him.

I participated in two parades in Nijverdal and Apeldoorn where we veterans rode in vintage World War II vehicles.

They are owned and maintained by private individuals belonging to a club called "Keep 'Em Rollin'". The Dutch showered us with bouquets of flowers on the parade route.

Probably my most memorable and touching moment was when a lady ran out to the parade route to hand me a little parcel. It was a letter wrapped around a chocolate bar. It read, in part "Dear Canadian Hero. Sixty years ago when the Canadians came, I was 10 years old. All the children jumped on the vehicles and I sat on the knee of a soldier and ate chocolate for the first time in my life. I will never forget that! So now, dear Canadian, I am giving you back the chocolate, with many thanks from myself, my husband and two grown sons".

On our last day we travelled to Kamp Westerbork on the German border, visited the museum there and attended a service at "The Wall" conducted by a Rabbi and a Minister. It is called "The End of the Line". Each veteran laid a rose on



Military Career of Cfn Joe Ordon, RCEME Corps representative to the VAC pilgrimage to commemorate the 60th anniversary of the liberation of the Netherlands

Service #: L51221
Unit Served in Netherlands: 44th LAD, RCEME; 15th Canadian Field Regiment, RCA
Rank at Discharge: Craftsman
Date of Birth: 28 October 1919

Short History of Service of Joe Ordon (as best he remembers in verbal interviews with Don Tiller on 16 February 2004 and 15 February 2005).

the railway track. Later that evening we attended a farewell dinner at Arnhem. On our way back to the hotel (after midnight) we noticed bonfires and celebrations on street corners in the towns and villages so our drivers turned on the lights inside the buses so they could see us returning their farewell waves.

I now have pleasant memories of the Netherlands to replace the memories I've carried these sixty years and I'm thankful to have had the opportunity to return.

A special thanks to the following:

Major Dave Ross and WO D Smith of 1 Field Workshop, 1 GS Battalion for obtaining for me the RCEME Crests. I wore them proudly.

A photo of Mr. Joe Ordon riding in a WWII vehicle during his visit to the Netherlands

Joe joined the Army in Regina in May 1940. He took basic training in Regina. At the end of his basic training, until he deployed to England, he undertook electrical training as a member of the Ordnance Corps in Ontario. Training locations included Kingston, Borden and Hamilton. Joe deployed overseas from Halifax on the troop ship "Cameronia" in August of 1941 or 1942 as part of the replacement pool. In England he undertook advanced technical training at Witley. He also spent time at Borden and Guilford. Joe was then assigned to 44 LAD in England.

Joe deployed to France on or about the 13th of June 1944 as a member of 44 LAD attached to 15 Canadian Field Regiment, RCA. Joe arrived in France on a Landing Craft Tank at or near Courseulles-sur-Mer. He remained with 44 LAD attached to 15 Cdn Fd Regt until the declaration of peace. During that time he participated in the Battle of France, Battle of the Netherlands, Battle of Belgium and the Battle of Germany. At the declaration of peace he was at Oldenburg, Germany.

Joe deployed from Germany to England then to Canada and landed in Halifax aboard the "Queen Elizabeth" in November 1945. He now lives in High River Alberta with his wife Marion.

Don Tiller for lending me his EME tie and providing other EME accoutrements.

The Corps (now Branch) for selecting me to represent all RCEME/EME personnel on this pilgrimage. Thank you for the opportunity of a lifetime.

Colonel Commandant Visit to 3 ASG Gagetown

By: Lt C.I. Matejek, Maint Coy, Tech Svcs Branch, 3 ASG

On 8 and 9 September 2005, 3 Area Support Group Gagetown (3 ASG) received a visit from Colonel (Retired) J.G.G. Nappert, CD, P. Eng, EME Colonel Commandant. Colonel Nappert visited the area on the occasion of the EME Golf Day organized by 3 ASG Technical Services Maintenance Company at the GAGE Golf Club. The Colonel Commandant also took the opportunity to meet EME personnel from Maintenance Company as well as from various units located at CFB Gagetown. The EME Branch Chief Warrant Officer, CWO A.C. Dalcourt, CD, accompanied Colonel Nappert during this visit.

The visit began with a presentation of medals to members of the Maintenance Company. Medals presented by Colonel Nappert included: the Campaign Star awarded to MCpl M. Daigle; Canadian Peacekeeping Service Medal (CPSM) awarded to Cpl J.C. Brewer, Cpl C.A. Muise and Cpl V.J. Ryan; and Canadian Decoration (CD) to MCpl L.C.M. Gilbert, CD1 to MCpl J.B. Thériault; and CD2 to MCpl J.M. Thibodeau.

Colonel Nappert then delivered a presentation covering topics such as current Branch affairs, EME Heritage as well as his recent visit to Camp Julien, Afghanistan. The Colonel Commandant was particularly impressed with the performance of



MCpl M. Daigle receives the Campaign Star

the Maintenance Company Jiffy Jeep Team at the International Tattoo in Halifax in July. The team led by WO B.L. Codner provided great entertainment and showcased our highly skilled technicians to a large

audience. 2005 being the Year of the Veteran, Colonel Nappert reminded the audience that as the years go by, it is important to remember the contributions of our veterans and not hesitate to express our appreciation for their sacrifices.

Following the presentation, Maj J.R.P. Archambault, Officer Commanding Maintenance Company, briefed the Colonel Commandant on the role and structure of the Company. Colonel Nappert demonstrated a marked interest in understanding the challenges faced by our organization, which is unique in the Canadian Forces in terms of its size and the variety of equipment it is responsible to support.



Colonel Nappert, Lt T.R. VanMourik, UMG Gp O, CWO A.C Dalcourt and MCpl J.L.Weir, IC Heavy Vehicles chat during a visit to the Unit Maintenance Group

Colonel Commandant Visit to 3 ASG Gagetown (continued)

The day continued with a visit to the Maintenance Company's main Workshops, Building L-33, home to the Unit Maintenance Group and Artisan Group and Building B-9, home to the Workshop Group. A coffee break gave Colonel Nappert the opportunity to meet technicians from all EME trades. During a tour of the Artisan Group workshop area, Colonel Nappert noticed the elaborate murals on the walls of the FCS Platoon workshop. He appreciated their artistic quality as well as the pride in Branch heritage displayed by this artwork.

After a stop at the 4 Air Defence Regiment's Golf Day held at the GAGE Golf Club, where he had the opportunity to chat with members of the Regiment's 210 AD Workshop, Colonel Nappert visited 4 Engineer Support Regiment's (4 ESR) Maintenance Troop. During a coffee break, Colonel Nappert and CWO Dalcourt took the time to answer questions related to Army Transformation and managed readiness. At the time of the visit, members of 4 ESR were undergoing training on the Remote Detection Vehicle, one of the components of the Improved Land Mine Detection System (ILDS). The Colonel Commandant was particularly interested in the technology behind this equipment as well as its method of operation.

The final part of the tour included a visit to the new 2 RCR Maintenance and Transport building. MWO D.R. Smith, 2 RCR Maintenance Platoon ETQMS, was deeply involved in the design of this new facility and gave a detailed and informative tour. It

his team from Maintenance Company, and was open to all EME personnel in the Atlantic Area. The GAGE Golf Club provided great entertainment and a good challenge, particularly for first-time golfers.



Sgt A.Y. Levesque, IC FCS PI, Maj J.R.P. Archambault, CWO A.C. Dalcourt, WO V.J. Steele Artisan Group Sergeant-Major and Colonel J.G.G. Nappert in front of the EME murals in the FCS Platoon workshop.

showcased the numerous features that have a positive impact on production while providing a much improved work environment for EME technicians.

Although heavy rain hit the area early Friday morning, the sun made a welcomed appearance later in the morning and all was set for a perfect day of golf. This Golf Day was organized by WO R.K. Bateman and

Colonel Nappert's visit provided an opportunity to meet EME technicians in their work environment but also in a relaxed setting, enjoying a beautiful late summer day and some friendly competition. CFB Gagetown EME personnel appreciated the Colonel Commandant's visit and would like to thank him for taking the time to visit their area.

Arte et Marte

Restoration of a 1946 jeep

By: MWO (Ret'd) Jim Rolfe

Just how does a retired Vehicle Tech keep busy once he leaves the Forces? Well, in my case I keep my hand in the mechanical field by restoring Jeeps back to their original condition. They may be a pile of junk when I start but end up mostly as they left the assembly line. They are correct in every detail and completely rebuilt back to new specifications. So far I have completed a 1952 M-38 and a 1946

CJ2A and am half way through a 1953 M-38A1. This story covers the 1946 CJ2A.

I wanted to do a WW2 Jeep, but found they are in such high demand by collectors that suitable candidates are extremely scarce. So the search focused on the Pembroke area as this locality has hundreds of hunt camps scattered throughout the hills of the Ottawa Valley. Frequently, friends had told me that there were plenty of derelict Jeeps at many of

these camps. However most had been left outside for so long that they were not worth the effort to restore or they had their frames butchered to handle snowplows. Repairing the frame of such a vehicle means removing reinforcing plates and mounting brackets, a task requiring the use of a cutting torch. Then the job of restoring the frame is long, tedious and labour intensive. I did look at several but soon gave up, as each one seemed worse than the last.



This Jeep has been restored to new condition and kitted out to resemble a WW2 version. Only a person well versed in Jeep models would be able to determine that this is a 1946 CJ2A.

Restoration of a 1946 jeep (continued)

In the summer of 2001, I was in the local mall having a coffee with an old friend, who sold me the land on which my house sits. With him was a fellow who said he was the owner of many Jeeps over the last fifty years or so. As it turned out he had several to sell and we set up a visit to his hunt camp to inspect them. Several had been used for snowplowing and I was not interested, but one, a 1946 CJ2A looked restorable. In the end I bought it and a second, a 1970 M-38A1 military Jeep. After several days of inspecting the two vehicles, I decided to restore the CJ2A and leave the other one for a future project.

In August and September of 2001 I had my dream workshop built complete with furnace and excellent lighting. The workshop measures 28 feet x 28 feet. In October, after all my tools were in the shop, I brought the CJ2A in to start my winter project. A careful inspection of the body revealed that it was full of patched areas and modifications with plenty of rust. Off it came and went to the nearby scrape dealer. As I had completed my M-38 Jeep several years ago by repairing the body I soon discovered it would be cheaper to purchase a complete new body assembly. I do not do any bodywork or painting myself. The cost of labour was the deciding factor. New bodies are readily available from suppliers

in the USA and the Philippines. In due course, the vehicle was completely disassembled down to the frame. The frame was not in bad shape with only surface rust. However several areas needed

shop, but I wanted to do most of the mechanical work myself. A search on the Internet turned up a suitable engine in nearby Petawawa. After stripping the engine, I found one valve seat was missing. It had come



Looking at the Jeep from this angle shows the standard equipment found on all military models. The spare tire and Jerry Can add the final touch as found on WW2 Jeeps.

welding repairs and my buddy Ron Roy (CWO Ret'd) did the work. Two cross members were replaced with new parts made up for me at a machine shop in Pembroke. All the power train assemblies were taken apart and inspected. I replaced some bearings and all seals and gaskets.

The engine had a cracked block and therefore was beyond rebuilding. Thus began the search for an engine to rebuild. Several were found in my locale but proved to be as bad as mine. I could have purchased a complete rebuilt unit from a local

loose and blew out the exhaust system. As I am not equipped to do a seat replacement I took the block into a machine shop and had them do the work plus replace all the valve guides. I did the valve job and all other work. The rings, all bearings, one piston and all seals and gaskets were replaced. The Jeep is not a military version; rather it is a civilian model. The military Jeeps after WW2 have the letter "M" before the model number, i.e.: M-38. Civilian Jeeps of early vintage were given the "CJ " designation, meaning CIVILIAN JEEP. However I did want mine to

Restoration of a 1946 jeep (continued)

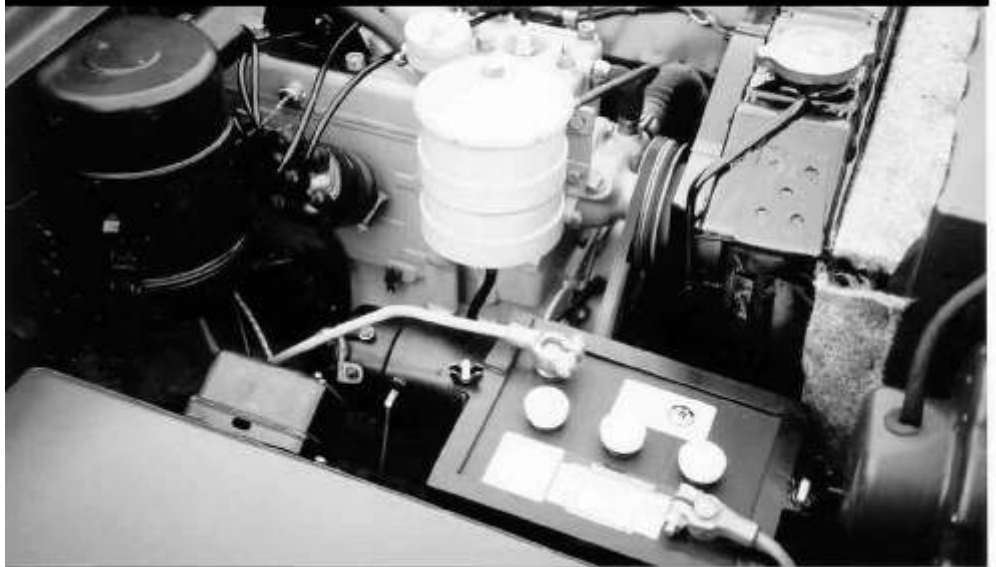
look military so it is painted in Olive Drab color with the seats in canvas like all military models. Also the canvas top is of WW 2 design, as are the tires. I mounted the spare tire and Jerry Can on the rear to be consistent with military vehicles. Except for the above modifications the Jeep has been returned to it's original condition. The electrical system is 6 volt with a new reproduction wiring harness. The drive train is completely original. Only a person very familiar with Jeeps would know that this vehicle is not a true WW2 model as it is so similar to what was built between 1940 and 1945.

WW 2 Jeeps are in high demand and command very high prices if restored to original. Jeeps from 1945 to 1952 with the flat fenders are equally desirable, even if they are civilian models. As often seen in the pages of publications pertaining to antique vehicles, military vehicles are becoming common at shows and meets. The most common being Jeeps as they are more plentiful and the parts are easy to find. Collectors are picking up even the newer military vehicles that the government has disposed of since the 1970's. A visit to the military museum at the Oshawa airport when they have their open house, (usually in early June), and invite collectors to bring in their vehicles will open your eyes to just

how popular this aspect of old vehicle restoration has become. There are many vendors selling parts and manuals for vehicles and every kind of military equipment,

RCASC in 1952 and stayed with them until 1954. In May of 1954 I joined the Regular Force as a Gunner with 1 RCHA, Z Bty (Para) stationed in Shilo. Completed 45

The electrical system is 6 volts as were all WW2 Jeeps. Later military models went to a 24 volt system that was also waterproof.



including radios and weapons. The remarkable aspect of my hobby is that I can get parts faster now than the military could when I was a mechanic doing repairs to them. Most items I order will arrive in my mailbox within three days. I drive my Jeeps in local parades and take them to car shows. This is an enjoyable hobby and at the same time saves some vintage vehicles from the crusher. These Jeeps are part of our history and well deserving of preservation.

I joined the Reserve Army in Regina as a driver with 22 Transport Coy

jumps and then took my release in 1957. I joined RCME in Sept 1958 and took my Vehicle Mechanic Group 1 course at CVTS trade school in Calgary. I served in Regina, Egypt, Germany, Kingston and Petawawa. I took my Group 4 course in Kingston in 1968 and stayed for two years as an instructor. I was the Technical Adviser in HQ, 4 CMBG, and Lahr 1981 to 1983 and at my release in 1986 I had the same position in HQ (G4 MAINT) at Petawawa. I retired to Pembroke Ontario where I still live.

Bren Gun Carrier - A vehicle with a long history

By: Cpl S.R Bourdages, Svc Coy, 1 R22eR, Valcartier

The Bren Gun Carrier, also known as the Universal Carrier, was used during the Second World War. Built in Canada, Great Britain and Australia, the Bren Gun Carrier served on all fronts and in all kinds of formations during the Second World War. It was used for infantry support, logistics, in an anti-aircraft role, and as a gun carrier. It was armed with a machine gun, a mortar and even a flame-thrower.

major events. When I first arrived at 1 Battalion, the Bren Gun Carrier was in a sorry state. It only turned in one direction, had major steering problems, a transmission with a faulty gearset, one track worn to the breaking point, and connectors that had been replaced with cotter pins. All the differential seals leaked and the motor overheated. The brake shoes were completely worn out,

working. A volunteer was solicited to recondition it. That was when I, Cpl Bourdages, came into the picture. When MWO Potvin asked for a volunteer, I was the only one to raise my hand, and therefore I was chosen. I thought that the project was a real challenge, a once-in-a-lifetime opportunity for a mechanic. At that time, I didn't really know what I was getting



Cpl Bourdages in Second World War uniform

1R22eR of Valcartier Garrison owns a Bren Gun Carrier, which it uses for parades of all kinds as well as other

and to top it all off, the 6-volt electrical system was connected to a 24-volt system because the generator was not

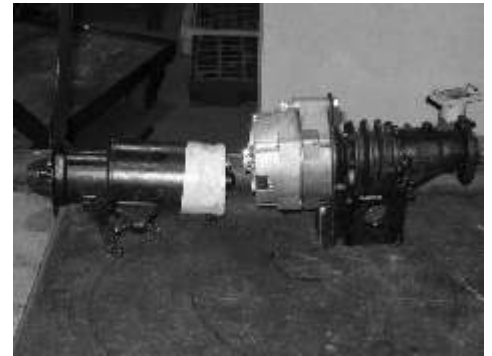
into, but I would soon find out.

Bren Gun Carrier - A vehicle with a long history (continued)

My first task was to evaluate the costs and find the replacement parts. I started by taking the Bren Gun Carrier apart, deciding which parts had to be replaced, and finding out how much they would cost. Most of the parts were locally available and the rest had to be machined or fabricated. When I submitted my cost estimate, I got some funny looks. The price was high, and the unit did not have the funds to cover all the repair costs. I was asked to make only the necessary repairs so that the Bren Gun Carrier would be mobile; the other repairs would be made later. I therefore decided to call upon two colleagues, Cpl Lefebvre (Dan) and Cpl Soucy (Yves), to repair the steering system, as well as the tracks and the electrical system. The steering system includes a steering wheel that is connected to the steering box via a linkage, and two wheel cylinders.

The two wheel cylinders are connected to the drums, and the drums are attached to the track linkage. It is a simple enough system but it requires many mechanical adjustments. I therefore rebuilt the linkage and steering box with the help of 5 Svc Bn and Daniel Savari, a machinist in Building 324. As for the brake shoes, it was really hard work to find any, because they contain asbestos. That led to hours of research because asbestos is really rare these days. Following extensive research, I got some from a man who had a small supply in his shed. He also resurfaced the drums. The next step was to repair

the electrical system. It was composed of a starter, a generator, accessories and lights. I had to install an electric fuel pump because the mechanical pump no longer worked. The old electrical system was 6 volt, so it was modified to a 12-volt system simply because of availability and the lower cost of replacement parts. The starter was replaced, as well as the generator by an alternator, which was a real challenge to install on the original engine bracket. We also repaired the temperature sensors, and finally protected the electrical system with fuses. Our last step was to repair the tracks. I used the expertise provided by Cpl Soucy, who is a qualified civilian welder. He added some thickness to the links for greater durability. Ouf! What a long and difficult job in the August heat! Our Bren Gun Carrier could run again, but we were not out of the woods yet.



In 2004, the Bren Gun Carrier was used in the 2R22eR change of command ceremony. It successfully completed the parade, but the motor was always overheating and the transmission was in a bad state. I removed the transmission to assess the damage inside. What a surprise! The first and second gears were completely destroyed. I therefore had to take the whole transmission apart. The gears were 7-pitch, and not synchromesh, which meant they were obsolete. I therefore decided to go with an 8-pitch gear, which forced me to re-machine the damaged gears to make them compatible. At that point, I was not sure the transmission would work properly. I decided I might as well change the ball bearings, which, with more than 50 years of wear, showed signs of fatigue. Once the transmission was reassembled, I was really pleased to find that everything worked well, even with a mix of 7- and 8-pitch gears. When I had taken out the transmission, I found that the transmission coupler to the differential was also in poor condition. Due to a faulty coupler adjustment, we had to fabricate a sleeve and use a press to install it, and



Bren Gun Carrier - A vehicle with a long history (continued)

weld the cracks that had developed over time. As long as parts were being replaced, I decided to open up the differential and replace the ball bearings. The only thing left for me to do was to examine the water pumps and the radiator to find out why the motor was overheating. The Bren Gun Carrier engine has two water pumps driven by the crankshaft. I found that the water pumps were worn. Due to budget constraints and the fact that the 1R22eR change of command parade was right around the corner, I decided to leave them alone. The Bren Gun Carrier was completely rebuilt, except for the engine, which started to show signs of fatigue as well. We were out of time and money. Cpl Lefebvre and I were assigned to the Bren Gun Carrier for our unit change of command parade. I had the honour of being designated the Bren Gun Carrier driver, dressed in an old Second World War uniform that Sgt Comeau, platoon Wpn Tech, had received from his grandfather. Battalion transport brought the Bren Gun Carrier to the Quebec City Citadelle for the rehearsal and parade. We decided to enter the Bren Gun Carrier under its own power, to show everybody that it still had some life left in it. The first obstacle of the day was to climb the Citadelle hill, which it did with grace and beauty. After having travelled 50 km on its first day, the engine started to overheat and was spewing black smoke. The next day, after a few kilometres, the engine started to knock, stall and overheat. In the words of any good mechanic, we were in trouble.



What were we going to do now to ensure that the engine would work the next day for the unit change of command, without breaking down on the parade square? We did a quick diagnosis. The worst had happened. The crankshaft bearings were damaged and the motor would overheat in only 10 minutes. We therefore decided to put in very heavy oil and remove the engine panels to cool it down and let in the maximum amount of air. On the day of the parade, we had to tow the Bren Gun Carrier to its start point, and Cpl Lefebvre and I were very nervous. Dressed in my Second World War wool uniform, I waited for Col Liston (Honorary Colonel of the Regiment at the time) for the inspection aboard the Bren Gun Carrier. Worried, I prayed all the prayers known to man as I advanced onto the parade square with the Bren Gun Carrier. When I arrived in front of the dais, the engine started to overheat and knock. As soon as Col Liston got out of the carrier, I hurried away to avoid having the engine stall in front of all the dignitaries. The engine no longer wanted to cooperate, but by cleverly working the clutch I succeeded in leaving the parade square without much difficulty, and got back to the start

point. The crowd did not notice the trouble that the Bren Gun Carrier was having. Ouf! That was close!



Colonel Liston driven
by Cpl Bourdages

We received many thanks from people. The positive comments from the dignitaries and spectators showed us that most of them appreciated seeing the historic vehicle in the parade. The story ends rather well, because we have learned that funding will be provided by the Régie du Royal 22e Régiment to give the Bren Gun Carrier an engine overhaul. I think that it is important to keep our history alive, as this helps to show us where our ancestors and veterans have gone and, without realizing it, how lucky we are to lead the lives that we have today.



Left to right Cpl Bourdages,
Cpl Lefebvre and Cpl Soucy

Technology and training - Keeping pace with transition

By: MCpl M.M. Tintor, FCS PI Instructor, Art Coy, CFSEME

The effect of evolving technology and its subsequent requirement to upgrade training continues to be an ongoing challenge for the Canadian Forces School of Electrical and Mechanical Engineering (CFSEME). The frequent introduction of new equipment into the Canadian Forces tests the adaptability of operators, technicians and instructors alike.

At CFSEME, Artisan Company, Fire Control Systems (FCS) Platoon, new

Training Aid developed by SIMGRAPH of Montreal was developed and recently trialed on an FCS Apprentice serial. The aim of the trial was to supplement hands-on Light Armor Vehicle (LAV) turret electrical troubleshooting using a simulator. The SIMGRAPH simulator is an interactive video trainer, which allows students to further develop fault finding skills in the classroom by allowing them to see affected signals



equipment and technology have necessitated not only updates in training material, but also changes with regard to the methods used by the platoon to deliver training to FCS students. One field of technology realizing greater acceptance and exposure has been the simulator field. Recently, a Simulation Based

“light up” when circuit conditions are active. This video based, interactive trainer allows students to practice faultfinding and simulated repair of LAV subsystems without actually being in the vehicle and therefore offers several logistical and time saving advantages. For example, if an instructor wishes to explain



something which needs a supporting demonstration, he doesn't have to take 16 students through the turret two at a time, instead utilizing the SIMGRAPH simulator it can be projected on the wall for all to see simultaneously. It also allows for concurrent training on the SIMGRAPH simulator and LAV vehicles, thus increasing the number of students working productively at any one time. Given the often-limited number of available training vehicles, this advantage improves the quality of instruction. The program has received great acceptance as an excellent supplemental learning tool. Having vehicles to support training will always be required for realism of training, but with the SIMGRAPH simulator as a supplemental training aid, FCS Platoon hopes to reduce the demand on LAVs and spare parts due to accelerated wear and tear, yet train more FCS technicians to a higher standard.

Other areas that are experiencing continued growth are the fields of Power Generation and Target Acquisition and Surveillance.

Technology and training - Keeping pace with transition (continued)



Recently staff from the FCS platoon attended factory training on a new 30KW generator that was brought into service to augment the existing



line of 5 and 10 KW Tactical Quiet generators. On the surface, power generation doesn't seem to stretch the technological imagination, but as our military's reliance on technology increases, so does our need for power generation. Aspects of power generation that may evolve out of this necessity is the alternative fuel and solar power technologies.

At one time not long ago, the Thermal Observation Device (TOD) seemed to push the surveillance envelope. With

the mid life upgrade of the TOD and adoption of the Forward Looking Infrared (FLIR) onto the LAV Recce Surveillance System (LRSS) the operator's ability to see in low or no light conditions is greatly enhanced. One only has to look south of the border at the US Army, and their extensive use of Thermal Imagery

and night vision based equipment, to understand the importance placed upon controlling the night in today's battle space.

As our military moves towards a "fight smarter not harder" mentality, technicians and trainers will have to remain abreast of technological advancement as it pertains to equipment coming into service. Future equipment such as Remotely Piloted Vehicle (RPV), Multi Mission Effects Vehicle (MMEV) and Mobile Gun System (MGS) will continue to provide challenges to the way we train technicians to maintain equipment.



The Holt family : Three generations in the EME trade

By: Lt C. Ly, 51st Svc Bn, St-Hubert

Brigadier-General Peter Holt retired on 27 July after almost thirty-nine years service with the Canadian Army (prior to 1968) and the Canadian Forces. He was the second generation of his family to serve with EME.

One of his last official duties, which gave him immense personal pride, was to review the graduation parade of the EME Common Course at the 51st Service Battalion, St-Hubert, and to present his son Craftsman Robert Holt with his EME badge. He was particularly pleased that his son chose to follow the 'hands-on' approach of both of his grandfathers.

Appropriately, in this Veterans Year, Brigadier-General Holt is proud to recall the achievements of his father, Jack, who had to leave school and start working at the age of fourteen because of the Depression and, without much formal education, worked his way up through the ranks to a commission. The family already had a military background, as Jack's father served with the Black Watch in the First World War.



The General is similarly proud of his father-in-law, Fred Atwood, who was orphaned at about the same tender age and had to find work and fend for himself in very difficult circumstances. He also rose through the ranks to receive a commission.

Jack Holt joined the Artillery in August 1939 and served during the war in Britain, Italy, France, Belgium and Holland, much of the time as a Sergeant commanding a gun section. He remustered (transferred) to RCEME in 1946 as a Vehicle Technician of the rank of Craftsman and, with his wartime experience and natural aptitude for the trade, was quickly promoted to Sergeant again. He then

1 Capt Fred Atwood at retirement in 1950 presented with his farm
2 Capt Jack Holt and Peter at the Christmas
3 Craftsman Robert Holt with his promotion
4 Sgt Fred Atwood in 1950's wearing
5 Staff Sgt (Warrant Officer) in 1957
6 Brigadier-General Peter Holt, OMM,

The Holt family : Three generations in the EME trade (continued)

spent some years at the RCEME School in Kingston instructing Sherman Tank recovery techniques and Power Trains. His son Peter was born while Jack was teaching at Kingston.

Promoted to Staff Sgt (WO) in 1954 Jack was posted to 2 Field Workshop in Petawawa for three years, then to 4 Field Workshop in Soest, Germany, for the next two years. It was back to Petawawa in 1959 and two years later he was promoted to WO 2 (MWO). It was back to Germany for the family in 1964 where Jack was put in charge of the Maintenance Platoon for the independent Anti-Tank company of 4 CMBG, B Company of the 3 Royal 22 Reg't which, at the time, had the most sophisticated weapons systems in the Brigade. His excellent work in this unique job led to the offer of a Special Commission in 1966. Jack then returned to the RCEME School and served his last eight years there, in Kingston and subsequently in Borden.

After retiring with a total of thirty-five years service, Jack Holt then became a DND civilian Technical Representative on the Centurion Rebuild project, first in Holland then in Nottingham, UK. With the introduction of the Leopard tank in 1976 he moved to Munich, Germany, as Technical Representative on his third generation of Canadian Armoured Vehicles, and died there

suddenly in May 1978. It was very fitting for the EME Holt family that Jack's son Peter, by now an EME officer, worked with his father on the Leopard project.

The General's father-in-law, Fred Atwood, enlisted in October 1944,

long tour at Valcartier garrison, now home of Defence R & D Canada, where his talents were put to work on a variety of experimental weapons including rocket and missile systems as well as every calibre of gun and Small Arm then in the inventory. He



BG Gen Peter Holt presents
EME badge to his son,
Cfn Robert Holt.

serving first in the Armoured Corps then the Infantry. He left the army in 1946, trained as a civilian machinist, then rejoined two years later as a RCEME craftsman machinist. Thanks to his wartime service and his excellent civilian trade qualifications he progressed rapidly and by 1952 had been promoted to Staff Sgt (WO).

Moving to what is now the Weapons Tech Trade, Fred then served a very

also did the trials on what became the FN C1 rifle, discovering a number of flaws in both the rifle and the ammunition, which were rectified before being issued to the army.

Staff Sgt Fred Atwood was posted to Sussex, NB, in 1959 to support militia training, then went on to 4 RCHA Petawawa in 1963. The following year he was promoted to MWO and became i/c Ancillary Section at what is now Base Maintenance Borden.

The Holt family : Three generations in the EME trade (continued)

His outstanding abilities were recognized when in 1966, and just like Jack Holt, he was offered a Special Commission.

Returning to Petawawa later that year he was one of the founding members of 2 Service Battalion, and helped set up the Maintenance Company organization. In 1970 he moved to the RCME School in Kingston as an instructor with Artisan Company and then moved with the School to Borden the following year. In 1974 he left Artisan Company for Base Maintenance in Borden and stayed there until retirement in 1978, completing over thirty two years service. Fred Atwood passed away in Ottawa in May 2002 at the age of 78. Another of Brigadier General Peter Holt's favorite memories was doing some projects together with his father-in-law in 1977/1978 while he was at the School and Fred was at Base Maintenance.

Peter Holt joined the Regular Canadian Army in 1966. He graduated from the Collège Militaire Royal de Saint-Jean and the RMC of Canada with a Bachelor's Degree in Mechanical Engineering, then served in various appointments with 2 Service Bn in Petawawa, 1 RCR in London, and 4 Service Bn in Lahr, Germany. He also served with 4 CMBG HQ, CFB Lahr, and was assigned to HQ Canadian Forces Europe to prepare the change from

Centurion to Leopard tanks. His work on the Leopard won him the DGLEM (Director General Land Engineering and Maintenance) Award in 1977.

Returning to Canada, he first instructed at the EME Officer Training Company of CFSAOE before being promoted to Major. He then went on to post graduate studies, and after gaining his Master's Degree in Mechanical Engineering in 1981 he was posted to DGLEM in Ottawa. Attending the Canadian Forces Command and Staff Course in Toronto, he won the prestigious Commonwealth Armies essay competition, and was then appointed Base Maintenance Officer in Winnipeg. Promoted Lieutenant-Colonel in 1986, he served at Air Command HQ as SSO EME, returned to Lahr three years later to command the Base Technical Services Branch, then returned to the RMC in 1992 as Director of Administration.

He was promoted Colonel in July 1994, served the next four years as a Director in the ADM (HR Mil) Group, then moved to ADM (Mat) as Project Manager of the LAV Project and Director of Armoured Vehicles Program Management. In August 2001 he was appointed Director Land Equipment Resources Management and EME Branch Advisor, and the following year was inducted into the Order of Military Merit in the grade of

Officer. In June 2002 he was promoted to his present rank to become Director General Land Equipment Program Management.

Anyone who has served with the military in Europe will know of the famous Nijmegen Marches, with participants covering 160 kms over four days. Peter Holt took part in this grueling annual event no less than fifteen times, eight of them commanding the Canadian contingent.

Now the third generation of the Holt family, his son Robert, continues their tradition in the EME Branch. He joined 28 Service Bn in April of 2004, went on to do his BMQ, SQ and Driver Wheeled courses, and ended up a VIP driver on Exercise Stalwart in August 2004. Right until the last moment his CO kept him in the dark that he would be driving his father who was also just as surprised!

Having completed his EME Common course, Craftsman Holt then went on to QL 3 training at CFSEME Borden. As the family tradition has it, Craftsman Holt is well on his way following the path set by his grandfather and father's within the EME Family.

EME in the North

By: MCpl R. Thuroo, Area Maint NCO, Yellowknife, NWT

"-57 Degrees Celsius, but it's a dry cold", that's what they keep telling us. No matter what the weather is outside, the EME Branch still has a job to do.

That's what we faced in March 05 when the Signals Sect of Canadian Forces Northern Area HQ, sank a Snowmobile / LOSV during a RECCE to the East Arm of Great Slave Lake, NWT. The recovery call came to CFNA, Maint Sect, and MCpl Roger Thuroo and 3 other soldiers from Supply and Transport Sect's responded. We had to act immediately due to the fact that the temp had dropped to -50 degrees Celsius, and we had soldiers out on the land, that had fallen through the



Our Mission here in the North is to support CFNA and lodger units, which include 1CRPG, 440 Sqn, Whitehorse Det, Iqaluit Det, and the Cadets. We have a wide variety of vehicles that we service from light commercial, heavy equipment, snowmobiles / LOSV, boats, and zodiacs, about 160

priorities here compared to south of 60. The experiences we have gained through working in an Arctic environment will pay off, no matter where we serve next. Winter here is fast approaching and we will be starting all over again.

Arte et Marte



ice and were wet. The complete task took about 12 hours from start to finish. The LOSV recovery was a success, however we had to return to the scene the next day to pick up another LOSV that we had to leave behind.

all. We have 3 maintainers here in the north, CWO Garry Kerr, Cpl Tim Giles and myself. It has been a great challenge to be a maintainer here in the north, with vastly different



EME Returns To Kandahar

By: MCpl K. Pollard, Canadian PRT, Kandahar, Afghanistan

For the 11 maintainers, deployed on OP ARCHER Roto 0, it has been a tour and experience like no other that the group has experienced before. Seven Vehicle Technicians (Veh Tech), two Weapons Technicians (Wpns Tech), a Material Technician (Mat Tech) and a Fire Control System Technician (FCS Tech) made up this hodgepodge group who were thrown together just two months prior to deployment. Technicians from 3 PPCLI, 1 Svc Bn and 1 RCHA were called upon to provide their technical expertise to a new style of mission being undertaken by Canada, a Provincial Reconstruction Team (PRT).

The PRT is an integrated Canadian effort that includes a large component of CF personnel, diplomats from Foreign Affairs Canada (FAC), development experts from the Canadian International Development Agency (CIDA), and police officers from the Royal Canadian Mounted Police (RCMP).

The PRT reinforces the authority of the Afghan government in and around Kandahar and helps local authorities stabilize and rebuild the region. Its tasks are to monitor security, to promote the policies and priorities of the national government

with local authorities, and to facilitate reform in the security sector.

Upon arriving at the Kandahar Airfield (KAF), the situation looked bleak. None of the ordered equipment had yet arrived. As the Commander was tasked with getting the operations in order, we were between Iraq and a hot place with no tooling, parts or consumables to perform our jobs. The maintainers from the Theatre Activation Team (TAT) saved the day by leaving behind, although in limited amounts, some tools and parts for us to use.

Eventually, about a month into the tour we started to get our equipment and supplies. The National Support Element (NSE) in Kabul helped as well by providing tooling and test equipment for all trades. At KAF the TAT provided us with two maintenance weatherhavens, these facilities were nothing but walls and a

concrete floor. The veh techs claimed a whole weatherhaven for themselves and the artisans were left to share the other. This worked out well as the FCS tech and Wpns tech needed very little room. The Mat Tech got the lion's share of space, but this was agreeable to all. All members quickly got to work setting up shop. Workbenches were built from scrap lumber, the tooling



MCpl Pollard

was distributed, power got hooked up and extra tools, consumables

EME Returns To Kandahar (continued)

and other trinkets were scrounged from our fellow maintainers from other coalition contingents. Morale was high as we were a bunch of eager beavers itching to do our part for the operation. Our living accommodations were not ready until early September, so we spent our first weeks living in the big circus tents otherwise known as the RSOIs.

Our team was split in two to better serve the PRT. Two veh techs and one wpns tech were sent forward to the compound in the city, eventually named Camp Nathan Smith, to provide on site support for the PRT. They were also tasked to the Quick Reaction Force (QRF) with the veh techs providing the crew for the up-armoured HLVW wrecker, and the wpns tech served as the Bison Ambulance crew commander. The remainder of Maintenance Platoon remained at KAF to serve in a quasi-second line capability.

Being soldiers first and tradesmen second, we displayed not only our technical prowess, but also our ability to show the patrollers that we were more than your average everyday combat service support troops. We saw the evolution of the Light Utility Vehicle Wheeled (LUVW) Command and Reconnaissance (C&R) variant, as

it became a first class gun truck with full armour protection for the crew and gunner. As a team we identified many downfalls, such as inadequate wire cutters, faulty brake lights and A/C switches and a severe design flaw within the cupola assembly. The Maintenance Non-Commissioned Officer (Maint NCO) was in continual contact with the Life Cycle Material Manager's (LCMM) to a point where I think that his name is in the same category as a four-letter word around NDHQ.

The Mat Tech astounded the other contingents, namely the Americans, by his can-do attitude and ability to manufacture parts and repair equipment that otherwise would have been deemed as unrepairable by their own technicians. Both Wpns Techs spent many hours adjusting and repairing LUVW cupola assemblies, which let Patrol Company and the Escort Section remain on the road to carry out their missions. The Veh Techs worked like machines, repairing various faults on all the vehicles.

Sometimes they worked long into the night, skipping meals to meet a deadline. Admittedly, as the FCS tech, I was not as busy doing my trade as I would have liked to be, but the Maint NCO kept me busy working on special projects and helping out the other trades when I

could.

As soldiers we continually had maintenance personnel on the road filling the requirement for Bison crew commanders and drivers. We not only did this for the convoys to and from Camp Nathan Smith, but also for various missions such as Visiting Medical Outreach (VMOs), VIP escort and one improvised explosive device (IED) hunting task. The VMOs tasks took us to small villages in distant provinces that had no access to medical facilities. Long drives through the desert seemed timeless as the threat of IEDs kept all concerned on their toes. VIP escorts left us on standby to drive VIPs if the helicopters became diverted or otherwise unavailable. The IED hunting task was a special treat, as the PRT went out and actively looked for IEDs along a specific route, in an area that was heavy in IED activity. Fortunately, none were found and we all made it back to Camp Nathan Smith unscathed. We have all done our share of security details, vehicle and personnel searches and other duties. A tour wouldn't be a tour without them.

Mid-October brought the arrival of the first of the troops from Kabul and we started to see our way of life change, as things do, when a larger

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CFB/ASU Wainwright Base Maintenance

By: MCpl Morris, IC OJT Weapons Section, Ancillary PI, Wainwright

The Base Maintenance Weapon Shop in Wainwright got an opportunity to turn back the pages of time to revisit an era of weaponry that our fathers and forefathers would have had the pleasure to work on.

It all started with a call in early February by Mr. Cal Fulmore from the town of Provost, AB to Capt St- Denis (PAFO Canadian Manoeuvre Training Centre) here in CFB/ASU Wainwright asking for assistance in refurbishing two "25 Pounder" cannons. Capt St Denis then contacted Lt Hamilton (AO Base Maint) who contacted Sgt Lukacs (IC Wpns). Sgt Rob Lukacs and all members of the Weapon Shop were immediately interested in seeing just what could be done to repair these weapon systems. A team was dispatched on the 4th of March to do a recce at the Provost Branch No. 85 of the Royal Canadian Legion.

At first sight the guns definitely were showing their age and lack of maintenance but MCpl David

Lumbard was pleasantly surprised that they weren't as bad as he had suspected they would be. Though rusty and weather worn Sgt Donna Woods could tell that with a little TLC this was definitely a doable project. When Sgt Lukacs came back to the shop and asked for volunteers to work on these guns after hours, the shop wholeheartedly voted to take on the project.

Another team of our mechanics, Cpl Jean-Francois Blais and Mr. Ian Currie, was sent out to transport the guns back to Base Wainwright on May 2nd, 2005. As they were preparing to take the guns from Provost they were stopped by some local residents who thought that they were losing their guns. It seems that the legion was recently purchased by the town and the residents weren't informed that we would be refurbishing the guns. Once the story was straightened out they were more than happy to let us go on our way and the two cannons entered their

new short term home here in the maintenance compound later that day.

Work began immediately on stripping apart, cleaning, sandblasting and preparing to repaint these weapon systems. As many of the brass parts that could be removed, were taken off, cleaned and repolished. Those that could not be removed were



cleaned and polished in place and then taped during the sandblasting and the painting. Cpl Kevin Kurschenska and Cpl St Peter dismantled the sights and sight mounts. Then MCpl Don Phillips and Cfn Matthew Tucker (FCS Section) took the sight cone, cleaned and polished it up, scoped the original numbers and colours for the sight scales and then returned all of the colours to their original state. Much time was spent trying to separate the tires from their tubes and then trying to find suitable replacements. But with the tenacity that has always been a maintenance trait no stone was left unturned, and finally we found just the ones that we needed.

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EME Jeep Team at TATTOO 2005

By: MCpl P. Osmond & MCpl C. Toner, Maint Coy, Gagetown

CFB Gagetown Maintenance

Company was given the privilege this summer to participate in the 2005 Nova Scotia International Tattoo 30 June to 9 July.



CFB Gagetown Jiffy Jeep Team
Front row (l to r): Cfn Corey Sampson, MCpl Christine Neville,
Cfn Michelle Alderson;
Back row (l to r): Cfn George Headley, Cpl Matt Roach,
MCpl Cecil Toner, MCpl Peter Osmond, Cfn Andrew Muir and
WO Basil Codner, Team Leader.

It all began on 10 May with WO Codner traveling to CFSEME Borden and returning from the School on 13 May with the much celebrated jiffy jeep. After the jeep arrived here at Gagetown, he began to mold personnel from three very different trades into a well-groomed team. With three weeks of intense training, the day finally came when we were off to Halifax to put our well-oiled skills to the test. Little did we know that the training we went through to get us to this point was far from over.

On 20 June our day began at 04:30 when the alarm went off. Our morning routine began with a trip to Tim Horton's for a kick-start and

then off to the Metro Centre by 05:30. We became involved in many routines starting with the Opening Ceremonies, the Jiffy Jeep skit, the Historical Scene, the set up for the Obstacle Race, the Reconciliation

and finally the Closing Ceremonies. After two weeks of grueling practice, the day finally came and the 2005 International Tattoo began. It seemed that everyone wanted a piece of us, being one of the main attractions in the show. ATV's Live at 5 was our first look at stardom,



and then it was Canada AM, the Halifax Herald and finally a show in the Sobeys parking lot for a performance for the public.

2005 being the Year of the Veteran, with many skits involving their participation, it certainly was an honor to meet and get to know so many of them in the short time we shared during the evenings. After the performances, we offered our time and assistance to any of the



veterans requiring help to make the event easier and hopefully even more memorable for them.

Although there were early mornings and late nights, this was an experience which all that participated in will cherish. Any and all of us would recommend to anyone offered the opportunity to be involved in the International Tattoo in the future, to grab it! It is an experience that no person should pass up.

Beep Beep

Arte et Marte

Gun shields for jeeps in Afghanistan

By: Capt G. Poehlmann, Public Affairs Officer, Kandahar Airfield

Within the past 3 months, Canadian Forces G-Wagon Jeeps in Kandahar have been fitted with a new armoured turret. This is an important enhancement, as this turret will improve the machine gunner's protection in the hostile environment of Southern Afghanistan.

and a pintle mount for a machine gun. The challenge was to provide additional protection for the machine-gunner, while maintaining his visibility and the integrity of the vehicle.

Some key concerns for a gun shield were protection and the ability to maintain wide engagement arcs.

Additional human factors had to be considered, because the ergonomics of the soldier/machine interface had to be optimized without compromising performance. Definitely a tall order, but in the spirit of "Red Green", a small group of like-minded military professionals set out to build a better mousetrap.

The story of obtaining more protection for deployed troops, in record time, has three main players. Sergeant

(Sgt) Chris Thombs and Master Warrant Officer (MWO) William Bolen, two infantrymen from 3rd Battalion Princess Patricia's Canadian Light Infantry (3 PPCLI), had the initial idea to develop gun shields for the G-wagon. They were assisted by Corporal (Cpl) James Land, a

Materials Technician from 1 Service Battalion (1 Svc Bn).

As Sgt Thombs says, "Before going to Ottawa, we sat down and drew a prototype. MWO Bolen had the idea to add a ballistic glass window to the turret to improve the gunner's visibility. He remembered a program that he had watched on the Discovery



A modified G-Wagon with gun shields prepares to go on convoy at Kandahar, Afghanistan on August 26, 2005

The Command and Reconnaissance (C&R) variant of the Mercedes G-Wagon has a gunner's hatch cupola



Corporal Helene April, a Weapon Tech, checks the turrets rotation mechanism for serviceability after the installation of gun shields.

Photo by: Sergeant Jerry Kean, Public Affairs Imaging Tech, PRT



Corporal Ron Prevost, a Veh Tech with 3 PPCLI in Edmonton, grinds down spots prior to welding the plates.

Channel where a Canadian company was identified as one of the best producers of ballistic glass. We had a warm feeling that we could improve the visibility by adding those windows."

The three of them went to Ottawa and met with representatives from the Director Support Vehicles Program Management (DSVPM) and National Research Council (NRC). A prototype based on the M113 gun shield had been fabricated, but it did not meet the key concerns. With the assistance of the rest of the team they completely overhauled the gun shield design. Once the prototype was completed, it was reverse engineered to ensure an

Gun shields for jeeps in Afghanistan (continued)

appropriate mounting installation on the G-Wagon. The result became the standard package that was replicated and shipped to Afghanistan.

As MWO Bolen says, "We, the military personnel, were an integral part of the development team. This turret surely represents what the gunner's need here, in Kandahar, to conduct their daily tasks. I am really proud of the result."

In Kandahar, it takes approximately one hour for a team of three military personnel to install a gun shield. By

the time this article has been published all the G-Wagon (C&R) variants will have been converted in Kandahar.

The gun shield is an unqualified success story. It shows that even complex pieces of equipment like the G-wagon can benefit from the ingenuity and drive of Canadian soldiers. The personnel involved in this project can be justifiably proud of their accomplishments.

As Cpl Land says, "Other nations have commented on the ballistic glass for the front shield. I believe we are the

first to do this, and it provides the best visibility possible."

The best acknowledgement on the merits of the gun shields comes from the gunners themselves. As Private Charlie Burge says, "The new gun shields are awesome, I feel more protected, yet still able to do my job. Patrolling or escorting convoys in the streets of Kandahar poses many challenges, but the gun shield gives me one less thing to worry about."

EME Craftsman awarded Land Force Command Official of the Year

Cfn Mike Dobson, a Weapons Technician with Maintenance Company, CFB/ASU Gagetown was selected in June 2005 as the recipient of the Land Force Command (LFC)



Official of the Year Award for 2004.

Cfn Dobson has been involved in ice hockey officiating since 1989 in

his hometown of Dartmouth, NS. After joining the CF in November 2001, he began officiating within the CF in Borden, ON while still on his QL 3 Course. Cfn Dobson started

officiating in the Oromocto, NB area in December 2002, shortly after his posting to CFB/ASU Gagetown.

Cfn Dobson is a certified level 4-hockey official who is very involved as a member of the Oromocto Hockey Officials Association (OHOA) in their Mentoring Program for developing junior officials. He is a very active official who willingly officiates for all levels of hockey within the surrounding communities from Minor Hockey, High School AAA League, NB Senior "C" League to Junior "A" League, as well as officiating in the Base Intersection Leagues.

In April 2004 he officiated for the SEDMHA International Minor Hockey

Tournament, which is held in Dartmouth, NS. In February 2005, Cfn Dobson officiated the Atlantic Large Base Military Hockey Regionals in Greenwood, NS and in April of this year the CF Men's Hockey Nationals in Borden, ON.

As LFC Official of the Year recipient, Cfn Dobson was invited to the CF Sports Awards Ceremonies held in Ottawa on 15 October 2005 for presentation of the award.

Cfn Dobson was accelerated promoted to Cpl effective 15 June 2005.

Arte et Marte

Ex MOUNTAIN MAN 2005 EME participants

By: Lt M.D. Ramessar, OIC Veh Pl, Maint Coy, 1 Svc Bn, Edmonton

The 1 CMBG Mountain Man

Challenge is an annual endurance race that takes place in the River Valley, Edmonton, in the following structure: 32 km rucksack run (15 kg rucksack); 3.2 km sandbag carry (15 kg rucksack + 2x17 kg sandbags = 49 kg); 10 km canoe and 5.6 km rucksack run (15 kg rucksack).

Ex MOUNTAIN MAN 2005

participants couldn't have asked for a better day for the competition, as the temperature was a perfect 15C, the sun was shining, and there was minimal wind. These factors, along with the high spirits throughout the race, contributed to some outstanding finishing times, with the first place competitor finishing at 4:41, and the overall average time being 7:08.

Most impressive was the performance of the 32 EME competitors in this year's competition, who not only embodied the Mountain Man motto "strength, Courage, Stamina" but also the second half of the EME motto "Marte, by fighting". Their performance and efforts were consistent with the fact that EME technicians are great soldiers too,

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Many nights of sandblasting every nook and cranny finally brought the guns to the point that we could turn them over to the tender attention of our local Michelangelo, Mr. Joe Shaban. Joe took the time to research and find the paint that would best match the original paintjob. With his usual expertise the guns were painted and made ready to be rebuilt. As the guns were being rebuilt many people stopped by the Weapon Shop to comment on just how good the guns were looking.

Much of the early part of July was spent on the finishing touches and finally on the morning of the 12th of July a convoy of vehicles transported the two cannons back to their home in Provost. Mr Ken Haevens got the privilege and responsibility of flatbedding this precious cargo and with his help we were able to get the guns winched off the flatbed and

safely placed back on to their stands at the Legion.

A few of the local veterans came out the day that we returned their guns. They expressed much appreciation for our efforts and were pleased at just how good the cannons looked when they were placed as two monuments flanking the legion hall. The team that went out that day had the privilege to meet Bill Carter who is a veteran that had operated these guns during WWII. He stated that they created "quite a crack" and that if you stood in front of them it was pretty loud.

We were sad to see the guns leave our hands. It gave some of the younger members of the weapon shop the chance to work on something that is a part of our past and was an opportunity that doesn't come all that often in our military careers. We were all proud of the

work that we had done and left one final message with the members of the Provost Legion and any other unit out there. That message is that we, as members of the current Canadian Forces and especially the Electrical Mechanical Engineer Branch, are here to serve the people of this country. Not only in this Year of the Veteran but at all times and in all ways that we can.

Arte et Marte!

...from page 5

procured, many of these items are held in the Canadian Forces Supply System (CFSS) or can be procured quickly as additional funding becomes available. "This is a positive step towards realizing a more deployable AF, said CWO Nelson. "We were able to procure deployable kits that we never had before. It is a morale booster for the techs to actually see the tools that they can expect to deploy with and it provides peace of mind knowing that the tools will be there when required to deploy."

Although the fly-away kits are designed for deployments and will be frequently checked for their readiness to deploy, there will be occasions to employ the kits in support of training events and at the Wing upon approval of the Officer Commanding (OC).

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finishing with an EME average time of 6:46.

This year's top EME competitors were: Capt Joe Boland (1 CER) 5:14, Sgt Pye (1 GS Bn) 5:28 and Capt Eugene Kotylak (2 PPCLI) 5:34.

ARTE ET MARTE

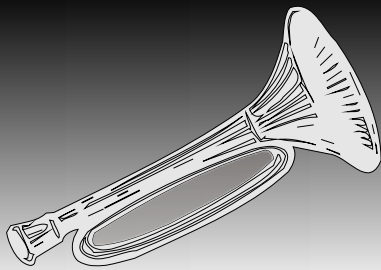
...from page 23

entity comes to town. From an original group of 30 personnel on KAF, the Canadian contingent soon grew to well over 500 within a couple of months. The NSE had decided to send their maintenance company down to KAF near the middle of Task Force Afghanistan's (TFA) big move from Camp Julien. PRT Maintenance did everything we could to provide optimum maintenance services to the NSE, National Command Element (NCE) and Task Force Kabul (TFK). It was the least we could do in return for their assistance at the tour beginning. This put a mild strain on some of our resources, namely the Veh Techs, but we pulled together as a team. All trades, Wpns, Mat and even FCS, got their hands dirty turning wrenches in aid of the Veh Techs. I think the Maint NCO got a tear in his eye when he saw the FCS Tech (me) elbow deep in grease in search of an elusive electrical fault in a Bison.

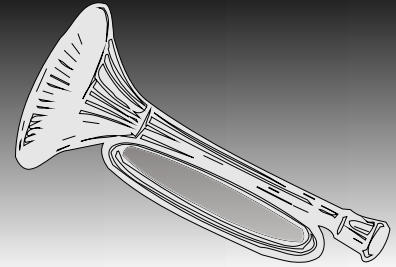
The tour is in its final stage, however the operational tempo, and threat have not eased up. We have had to move from our original maintenance area into the same compound as NSE Maintenance thus breaking up our group a small bit. The Veh Techs have their own weatherhaven, and the artisan trades have moved in to the

workspaces of their NSE counterparts. DA accounts are being amalgamated, but we remain true and dedicated to our mission, which is the PRT. We are now only waiting for the Commander to call the "End-Ex" so that we can all go home.

This tour has been unique and challenging for each of the maintainers in its own special way. For some it was their first tour, for others it was their third or even their fourth. Nevertheless, we can all say that we are taking away with us a very valuable life experience, a whole whack of money and the pride of knowing that we, PRT Maintenance Platoon did our best and exemplified the Branch motto Arte et Marte



LAST POST



Edward "Morton" Allen

December 10, 2005

Edward Allen passed away in his 95th year in Roseway Hospital, Sandy Point (NS). He was born December 21, 1909, in Lower Ohio. He was a son of the late Everard and Minnie (Davis) Allen. Morton served four years in England at the base workshops of R.C.E.M.E.

LCol (Ret'd)

Bob Preston

December 26, 2005

LCol Bob Preston died from a prolonged struggle with emphysema. Bob served in Korea as a Lieutenant in the RCASC. He worked on Chemical warfare defence equipment at the Defence Research Establishment in Suffield Alberta and in various logistics assignments in Canada and Germany. He transferred to RCEME when he was a Major, served in 202 Base Workshop and at the Defence Research Establishment in Valcartier. He completed his career as a LCol in the EME Branch serving in the Directorate of Clothing and General Engineering and Maintenance.

Lewis Charles Rundle

December 18, 2005

Lewis Charles Rundle of Angus passed away peacefully at The Royal Victoria Hospital, Barrie in his 78th year. Lewis Rundle was a RCEME Vehicle Technician for many years.

Maj (Ret'd)

J. F. (Jack) Clarabut

November 19, 2005

Maj (Ret'd) Clarabut was with R.C.E.M.E. and peacefully passed away at the Perley Rideau Veterans Health Centre in his 85th year. Jack enjoyed a distinguished career in the military and public service.

Jack Alexander Cummings

December 1st, 2005

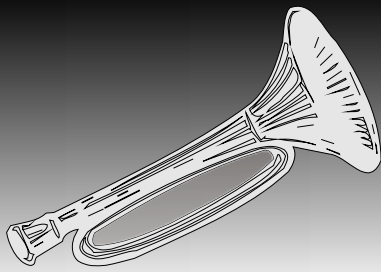
It is with great sadness that the family of Jack Alexander Cummings announces his passing at the Saint John Regional Hospital. In 1940 he enlisted in the Elgin Regiment, serving in World War II and saw service overseas during WWII. In his

16 years with the Armed Services, Jack also served in the Korean War with the Royal Canadian Electrical & Mechanical Engineers from 1951 to 1953. He spoke proudly of his 50-year membership with the Royal Canadian Legion.

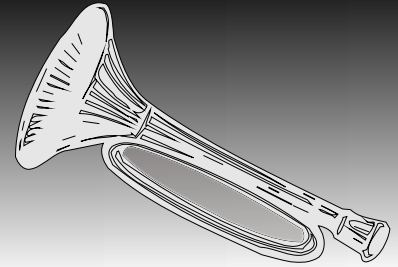
Clifford James Brown

November 09, 2005

Clifford James Brown passed away peacefully in his sleep at the Oromocto Public Hospital. Cliff joined the Army on January 20, 1942, in Halifax, N.S. and went overseas from August 1943 to June 30, 1946. He was a Veteran of D-Day, and very proud to have served with the North Nova Scotia Highlanders. In June 2005, Cliff was one of the few Veterans selected to go back for the 60th, Anniversary of the Canadian landing on the beaches of Normandy on the 6th of June 1944. Cliff was proud to represent the RCEME Corps. He retired in January 1974 at CFB Gagetown as a RCEME member, with the rank of Sergeant. Cliff served as a United Nations Peacekeeper in Egypt from 1964-65.



LAST POST



Raymond Douglas Woodland

September 23, 2005

The death of Raymond Douglas Woodland occurred peacefully surrounded by his family at his residence. Raymond worked for T.S. Simms and the Saint John Dry Dock. He also served in the Army, RCME, for 21 years.

Capt (Ret'd)

Ronald Evans Hicks

August 21, 2005

Ronald Evans Hicks of Kincardine passed away at South Bruce Grey Health Centre, Kincardine in his 72nd year.

LCol (Ret'd)

Burnell B. Cox, CD

February 25, 2006

LCol (Ret'd) Burnell "Burnie" Cox, life member of the Association of Professional Engineers, Geologist and Geophysicists of Alberta (APEGGA), passed away at the age of 84 years. Burnie graduated from Nova Scotia Tech in 1944 and joined

the Canadian Armed Forces - Royal Canadian Electrical Mechanical Engineers (RCEME). He served in Korea in 1954 and Egypt from 1957 to 1958. Burnie was the first Commanding Officer of the 1st Service Battalion in Calgary from 1968 - 1970. He retired from the military in 1971. He was also an active member of the Royal Canadian Legion - Centennial Branch No. 285.

Robert Murray MacFarlane

February 26, 2006

The death of Robert "The Bob Cat" Murray MacFarlane of Fredericton, NB occurred at the York Manor Nursing Home. Robert was a mechanic with the Army for many years and was an avid pool player.

Major General

Bruce Jarvis Legge

February 27th, 2006

Major General Bruce Jarvis Legge, CMM, CM, KSTJ, ED, CD, QC 1919-2006. Died in peace surrounded by his loving family.

Donald Halfyard

January 16, 2006

Don passed away at the Victoria General Hospital at the age of 77 years. In 1945 at the age of 17, Don joined the Canadian Army. He had a honourable 28-year career serving in Canada, with NATO in Europe and with the United Nations peacekeeping forces in the Middle East.





Murphy's law

The adventures of Sgt Murphy and Cpl Boggins by Cpl A. Courchesne

Logic is a systematic method of coming to a wrong conclusion with confidence

