



COMMUNICATIONS AND ELECTRONICS BRANCH

NEWSLETTER

VOLUME 58 & 59 › SUMMER 2013 › FRANÇAIS AU VERSO

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National
Défense

Défense
nationale

Canada



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About the C&E Newsletter

The aim of the Newsletter is to present practical Communications and Electronics articles, provide a forum where topics of interest concerning Branch matters can be presented and discussed, and foster esprit de corps. The Communications and Electronics Newsletter is an authorised, unofficial publication of the Communications and Electronics Branch of the Canadian Forces. It is published semi-annually. Views expressed are those of the writers and do not necessarily reflect official Branch opinion or policy.

Editor-in-Chief: Col S.C. Sibbald

Editor: Maj D.J.W. Bergeron

Editorial Review: CWO M.M. Dinelle

Assistants: Lt D.T.L. Christensen and 2Lt J.P. Fortin

How to Submit an Article or Pictures

CONTRIBUTIONS, SUGGESTIONS, and CRITICISMS are encouraged. They must be submitted in an electronic format and include a title, name, unit, position and phone number of the author.

TEXT: Submit your text in an electronic format using the departmental standard software product (MS Word). All articles are to be a maximum length of 700 words unless the article is to be considered as the feature article. There will only be one feature article per edition. The feature article will be selected by the Editor-in-chief.

PICTURES: Imageries of all sorts are worth a thousand words, so do not hesitate to use them. We are particularly fond of photos. Please ensure they have an appropriate caption. Electronic photos must have a 300 DPI resolution and must be in a jpg format.

Next Newsletter Deadline: **31 October 2013**

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How to win \$150 (Clement Military Writing Award)

The Branch has set aside a total of \$600 per year for the winners. This \$600 is divided into four prizes of \$150 each. To be eligible to win this award, participants must have been donating to the C&E Branch Fund for at least a year. There are two categories; one officer and one NCM for each issue and there are two issues per year. Along with the financial award, the new "Clement Military Writing Award Certificate" signed by the C & E Branch Adviser will be presented to each winner.

To submit your article, please follow the guidelines:

Topic: The articles can be from any topic you choose, such as; the role of electronic warfare on the battlefield, the need for on-time communications in the modern battle arena and so on... or it can also be from your workplace. Who knows your workplace better than yourselves? Tell the members of the C & E Branch what you do for a living, with the trials and tribulations that go on in your daily life. Just because you know what you are doing, it doesn't mean that the rest of us do, put it in writing, enclose a picture, and let us know. Make sure you include a title, name, unit position and phone number.

Due date: 31 October 2013 // Format: Word document Length: Maximum of 700 words // Picture: jpg file (please send a caption as well) // Submission:

By e-mail to +DGIMT C&E Branch@ADM(IM) C&E Branch@Ottawa-Hull

Branch Leader

MESSAGE

WITH 2013 NOW FIRMLY UPON US, WE ARE POISED to receive our Colonel-in-Chief who will preside over the activities relating to our 110th Anniversary as military communicators. Many extra hours have been expended in the planning for this week of celebration that we have dubbed as Celebration 2013. I would like to thank Lieutenant-Colonel Walter Wood, the outgoing Commandant of our Home Station for his exceptional leadership, close coordination and countless hours that he has enthusiastically dedicated in order to ensure success in this major event. I would also like to take this opportunity to introduce his replacement, Lieutenant-Colonel James Lambert who will coordinate the final details of the plan and supervise the execution of Celebration 2013 as he assumes command of the Canadian Forces School of Communications and Electronics (CFSCE) and our Home Station. You will note inside this edition of the Newsletter, the planned schedule of events for Celebration 2013.

As well, 2013 marks three years since the Branch History Project was jointly initiated by my predecessor, Lieutenant-General Guy Thibault and former CDS and Signaller, General Ramsey Withers (retired). A three-phased project, Phase I is the English version of the book that will be called *Semaphore to Satellite*. This book will be delivered on 24 October 2013 in a ceremony presided by our Colonel-in-Chief, marking the end of an important milestone in the lives of many retired members of our Branch who have dedicated countless hours of their personal time to



MGen D.G. Neasmith

ensure that we have a lasting legacy. I would like to thank all of the members of the Branch History Project Board of Governors (BOG) and the Executive Group for their outstanding contributions to the legacy of our Branch and in particular highlight BGen George Simpson (retired) the Chairman of the Executive Committee of the BoG for his leadership. I would also like to offer a heartfelt thanks to key members of the Executive Committee that led the research and collation activities, including BGen Don Banks (retired), BGen Pep Fraser (retired), Colonel Peter Sutton (retired), Colonel Jack Thomson (retired), Maj Clair Bostwick (retired), MWO Terry Murphy (retired), and WO Liisa DeNoble (retired). Finally, we have been very fortunate for the services of BGen Bill Patterson (retired), the author of our book, who has devoted so much of his personal time and effort to ensure that we will have a book that we will treasure for decades to come.

Semaphore to Satellite is the first time that we have captured, in one place, the tremendous history of achievement of the people who have made up the Communications and Electronics Branch, and all its predecessors. The story of Canada's military communicators and the legacy that they have left is one that should make all Canadians justifiably proud. In peace and in war, our Branch members have been leaders of innovation. They have succeeded in the urgency of conditions under fire that needed a solution "right now" such as Sergeant David

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Colonel Commandant

MESSAGE

NOW WELL INTO MY SECOND YEAR AS YOUR Colonel-Commandant, I am happy to report that the total travel restrictions imposed by Treasury Board have finally been lifted even though stricter controls than before have been established. Nevertheless I was able to attend a number of change of command parades before the new rules came into force due to the good will of Branch personnel like CWO Dinelle and others who drove me to Petawawa, Kingston and Trenton to attend the change of command parades of 2 CMBG HQ and Sig Squadron,



BGen J.J.M. Charron (Ret'd)

Branch Advisor and 8ACCS. I also attended a number of change of command parades in the NCR including CFIOG, CFNOC and 76 Comm Gp. Unfortunately I was unable to attend many others like 21 EW Regt, Col of the Regiment (CFJSR), 742 Comm Sqn and 31 Sig Regt. I want to take this opportunity to sincerely thank all of those who have invited me to participate in those very important events not only for the units but for those leaving and taking on leadership responsibilities.

I must admit though that my visit to our Colonel-in-Chief Princess Anne on the 11 October to discuss her visit for our 110th anniversary from 22 to 26

October 2013 was the highlight of the past year. I found her extremely well acquainted with our Branch and very knowledgeable on our profession in general. The program for her visit has been agreed to and only minor details remain to be confirmed with her staff. Celebration 2013 will be a very important milestone for our Branch as we will be launching our history book, *Semaphore to Satellite* and receiving our Colonel-in-Chief Royal Banner. I certainly hope that many of you will be joining us in Kingston for the celebrations.

Travelling and attending parades has only again been a part of my activities since last Spring as I have continued to participate in all Branch Advisory Committee (BAC), Extended BAC and Branch History Project Board of Governors, Celebration 2013 and C&E

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Editorial Note: Maj D.J.W. Bergeron, Editor

This edition of the C&E Newsletter combines the articles of the December 2012 edition, which would have been known as Edition 58, with articles received since that time. The editorial team and the C&E Branch Leadership would like to thank everyone who has contributed articles and continue to do so to help inform members of our Branch with the events happening across the spectrum of our reach. We would like to apologize to those contributors whose articles were not used due to the time sensitivity of the submissions.

Please note that the next edition will be published in December 2013 with a deadline for submissions of articles set at 31 October 2013.

Museum Foundation meetings. I also participated in a number of other Branch events such as the Museum Gala, the Retired Officers Annual Dinner (ROAD) and the NCR Mess Dinner. My participation in those meetings and events has allowed me to again witness first hand how dedicated and professional the leadership of our Branch is in analyzing current issues at all levels and proposing strategies to ensure our contributions to the CF are understood and valued without neglecting the welfare and development of our NCMs and Officers. I am particularly impressed by the senior leadership of the Branch in coming up with a cohesive strategic outlook for the Branch.

As a member of the Editorial Board of our Branch history book, *Semaphore to Satellite*, I have already reviewed a significant number of draft chapters submitted by the author and I can assure you that the final result will be extremely interesting and of very high quality from an historical perspective with all the vignettes and inputs received from across the Branch. It not only tells the story of what our Branch has accomplished over time but it also relates individual members of all ranks outstanding actions in battle and in peace time. You may be surprised to see your name in there or the names of individuals you worked with. Again, if you have not already ordered your book, I strongly encourage you to do so promptly as a means of showing your appreciation to a group of retired members who have graciously given time and efforts to make this endeavor a success, something that we can all be very proud of. Knowing where we are coming from and the sacrifices that were made to get us where we are today is an essential element of knowing how we can best tackle the future.

In my last article for the C&E Newsletter, I expressed some concerns about the impact of personnel and budget reductions on the quality of life of our members: the increase of overtime to compensate for those reductions occurring without elimination or streamlining of processes. Based on my experience, through my participation at BAC meetings, reading about what is currently happening across government and businesses and talking to members of our Branch and federal civil servants in other departments, I am coming to the conclusion that those concerns may be materializing at an alarming rate. Furthermore, the span of control of

leaders at all levels may be growing to the point where leaders can no longer achieve unity of purpose and lines of accountability can become blurred. This may also result in assignment of responsibilities without the relevant authority and resources to deliver. It seems to me that the leadership at all levels must expose the serious consequences of the reductions: morale and health of the personnel is being seriously affected, especially for those remaining and the services being delivered are being compromised in many areas. This can have serious consequences on the overall capabilities of our Branch and the CF when one considers the traditional can do attitude of our military culture.

Now, let me bring your attention to a number of articles I have come across which offer some support for the approaches I believe we have been proposing to better enable our Branch in the delivery, governance and management of information technology and its related domains. This is also somewhat related to the ongoing lack of understanding of our critical role and contribution to the CF in the field of joint operations, information technology, information technology security and the required training to adequately provide the capabilities to effect operational success.

The first article by Regan G. Reshke, Science Advisor, Science and Technology (Land) at Defence Research and Development Canada (*Adapting to Rapid Change* in the Spring Edition of *Veritas*, the RMC Club magazine), focuses on high-impact technologies with military relevant capabilities such as information technologies. Some of the most important statements related to what we deliver, made by Mr Reshke are, and I quote:

♦ “Overcoming the harmful aspects of advances in science and technology will not be an easy undertaking if for no other reason than the fact that technological systems tend to introduce a multitude of interdependencies such as those upon electricity, communication and data networks, and security systems. Consequently, societal complexity is amplified due to the broad institutional commitments and obligations to guarantee the continuous operation of these systems — systems that have become de facto essential services within modern societies.”

♦ “Flexibility, adaptability, and resilience must therefore become the cornerstone characteristics of modern societies amongst

the growing complexity, uncertainty, and pace of change of the 21st century.”

♦ “Equally important is a requirement to actively shape technological advances for maximum benefit and effect, while minimizing potential adverse consequences — objectives that can best be met within a defence community that is educated in technological assessment and strategic foresight. Indeed, in a compelling presentation, Dr. John Moravec demonstrates the importance of technological literacy within today’s society and suggests that the accelerating change in modern society has a direct impact on the half-life of knowledge. In other words, if the amount of information available doubles at an increasing rate (exponentially), then the half-life of knowledge is decreasing exponentially.”

♦ “Given the acknowledged significant contribution that technological advances make toward enabling superior military capabilities, the defence community cannot ignore the importance and impact of technological change. Thus, within the CF’s leadership and professional development programs, a focus on understanding and harnessing exponential technological change would represent a significant educational shift, which would enable members of the CF to better leverage and adapt to the changes that will be brought by accelerating technological change.”

Another interesting article published by Eric Lundquist in *Information Week*, discusses the reasons why users/operators do not look to IT for innovation. In his words, doing “more with less isn’t enough”. He asks if IT organizations are doomed to fall short of impossible expectations in this era of bring your own device, cloud computing, and software service vendors pitching users with fast install and end run around IT. Will IT legitimate concerns about security, compliance, and integration make it the innovation villain, viewed as a drag on new corporate capabilities, rather than an innovation leader? He goes on by saying that even though IT is frequently recognized as a business segment leader in productivity (doing more with less); it can also run counter to the concept of implementing new technology to drive innovation and also of not ensuring the returns on efficiency flow back to the source of those efficiencies. As Gregory

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Branch Advisor

MESSAGE

A YEAR INTO THE BRANCH ADVISOR ROLE, AND I am really starting to appreciate the level of complexity that we deal with in the Branch...

CHALLENGE 1: We have just gone through a period of profound changes to the way we operate in the Branch:

- ◆ Withdrawal of troops from combat mission from Afghanistan;
- ◆ Dissolution of three dot-coms and formation of the Canadian Joint Operations Command;
- ◆ Cut-over of major chunks of non-deployable IT to Shared Services Canada;
- ◆ Increased emphasis on expeditionary ops in the RCAF (e.g. OP MOBILE);
- ◆ Move of the Communications Security Establishment out of DND; and
- ◆ Three trades amalgamated into ACISS.

And there are still more changes coming down the pipe!

CHALLENGE 2: We continue to stretch our limited pool of skilled personnel to meet several concurrent missions:

- ◆ Provide tools to enable strategic, operational and tactical command & control;
- ◆ Provide IM/IT capabilities;
- ◆ Expand Intelligence, Surveillance and Reconnaissance capabilities including backbone distribution (e.g. OP NANOOK); and
- ◆ Expand cyber activities, particularly active defence and exploitation.

Of course, in reality we cannot pick-and-choose; we must complete all missions!

CHALLENGE 3: Organizationally, members of the Branch report through every Level 1 in the department. The Branch is a personnel



Col S.C. Sibbald

management construct which is geared to producing people who can generate and sustain the required capabilities. However, the Branch has no central chain of command and cannot develop, generate or employ C&E forces; this is done by the other L1s, primarily the Army, the RCAF and the IM Group.

CHALLENGE 4: Technology. 'nuff said.

Takes your breath away, doesn't it?

Fortunately we have 8000 talented and motivated people, joined by a common vision and strong loyalty. We know what needs to be done, and we're working our butts off to get there. We have strong command

teams in charge of each operational domain:

- ◆ Army Sigs: Col Hall and CWO McNabb;
- ◆ RCAF Telecom: Col Lew and CWO Peever;
- ◆ CFIOG: Col Allen and CWO Boislard;
- ◆ IM Gp: Col Wood and CWO Gaudreault; and
- ◆ Shared Services: Col Girard and CWO Pelletier.

Although the Branch doesn't command C&E forces, these five command teams do. Further, they are all led by a single Branch command team, MGen Neasmith and CWO Dinelle. All six command teams meet 3-4 times per year at the Branch Advisory Council to tackle the toughest challenges and to synchronize the various streams of the Branch's operations. And this A-team of command teams is supported by a full-time Secretariat consisting of Maj Bergeron, CWO Dinelle and Sgt Parsons.

So, do we have difficult tasks ahead? You betcha. Do we have answers? Not all yet. But most importantly, we have people and leadership who are willing to grind away at solutions and produce the results. Just like we always have.

Branch Chief Warrant Officer

MESSAGE

OUR SLICE OF CHANGE IN 110 YEARS
OF MILITARY COMMUNICATIONS IN CANADA

WOW! THE TIME TO MARK OUR 110TH anniversary is just a bound away. Before we know it people and teams will gel when new members have settled in to their new positions. Summer leave with its adventures and projects will have brought family and friends together with memories that is fun and special. 110 years of military communications in Canada is quite a feat. Some of us have been committed for a quarter of that time; most will see that they have been at it for a tenth of the time. What I find amazing



CWO M.M. Dinelle

that our potential can bring to the CAF and the C&E Branch. As one apparel company puts it "Just do it".

There is certainly enough on everyone's plate. Perhaps that is why we are constantly pioneering and acclimatizing. Some may say that it is a bit much. Maybe there is some truth to it. We are not entrenched in the routines of a combat arms unit, aircraft operators and maintainers on Wings that have stability of platforms they operate, our tools of the trade seem to change more than other Branches, and individually there is a vast spectrum of skills that we are expected to know and lead forward into the future. We are proud

Those in SSG and in the SSUs face challenges in moving forward and getting the job done where the environment is fluid, requiring us to adapt.

are the people that have marked our past, built our present and those that will guide our future. We deserve a pause to reflect, celebrate what has been accomplished and to rally our fellowship for the challenges

of the environments we belong, comfortable and confident to operate in all of them. I believe one advantage of this "environment" is that we

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Director of Signals

MESSAGE

WELL I'VE BEEN IN THE JOB 41 DAYS AND IN that timeframe, we have become the Royal Canadian Corps of Signals who will start wearing RCCS shoulder flashes, our Privates will be called Signalers, there is a thrust to converge Land Command Support System (LCSS) and Defence Consolidated Secret Network Infrastructure (CSNI), the Commandant of CFSCE has been appointed as a Deputy Director Signals, the MND announced a rank insignia change for Army folks, and I was afforded the opportunity to address our Home Station units at our Museum at the "110 Days to Go" event. A special thanks to our Branch CWO who happily accepted my offer to help him with his daily 110 push-up count! Must be time for leave.

In my first communiqué, I did not want to make too many predictions but things are happening that will cause some changes in how we have done certain business. For example, I cannot spend TD money to hold succession boards. I am committed to maintaining the Regional Senior Signal Officer (RSSO) and RSCWO appointments and to having those officers remain a key part of succession planning. In order to achieve this, I intend on adjusting our succession process and using encrypted files and VTC to ensure our people continue to be appropriately represented within succession planning. The measures of success will be continued inclusion of senior officers from across the country and that decision making is not seen to be centralized and exclusive to DSigs.

I remain concerned with our new Army Communications Information System Specialist (ACISS) MOC. It is well known that the Army implemented this new MOC based on urgent need and that not all of the administrative work within the central staff at NDHQ was complete. It will take the continued efforts of all of us to see this through. A new MOC logically will take years before it is stable and we can validate that we have it right. We are now into year three and we are starting to get some feedback from the field about training. We must remember that this MOC is designed to be progressive over a career and we do not intend to front-end load all the skills necessary to operate and deploy all of our systems. I do acknowledge from the feedback that we have more work

Branch Leader — Continued from page 1

Lloyd Hart at Dieppe when under heavy fire, his quick actions as the Brigade wireless operator to communicate the situation to the Forces Headquarters while keeping the Brigade net open, was attributed to saving many lives. Their imagination and creativity has also been at the forefront in peacetime such as the amazing story of building a national communications and radar infrastructure throughout Canada's vast Northern frontier. This book represents the culmination of tens of thousands of person days of effort by highly dedicated veterans, serving military personnel and a broad community of communicators from across the country who have come together to lovingly tell their stories. Ours is a story that reflects the best qualities of dedication, team work and innovation for which Canadians are known around the world.

24 October 2013 is the 110th Anniversary of the order that established the Canadian Signalling Corps (Militia) — the first in the Commonwealth — and the realization of the vision and foresight of Major Bruce Carruthers, a combat veteran and war hero. His wartime experience forged a conviction that signalling was a vital part of the



Col S.W. Hall

to be done to refine the occupation and sub-occupations. How the occupation functions is a reflection of how we develop and look after our people; its continued development will be a key thrust of mine.

Complicating the ACCIS MOC development and the associated IT&E streams is the continued evolution of LCSS. Our system has been seen to evolve at rate that tended to exceed our ability to institutionalize the necessary training and education. We should not underestimate just how complex and tough a challenge this is, not just for the Signal Corps but also the Army and CAF. We are not Apple and it's called LCSS not iLCSS, but

we must narrow the gap between system evolution and the institution's ability to keep up. In my initial DSigs communiqué, I mentioned the need for us all to continue to contribute to the evolution of Signals. In this case, it means further refining the sub-occupations and establishing the right IT&E for each, and doing so in a manner that accommodates a routinely evolving system architecture. While I do not support fielding new capabilities without the training in place, I cannot stop projects when they are ready to be delivered from industry. Thus there is a coordination function, but more importantly, the institution must be designed to keep up. The Commandant of CFSCE was appointed as a Deputy DSigs specifically with this work in mind but we should not expect a mere appointment to solve everything – no slight to our very capable Cmdt. No matter where you are, if you're in the Signal Corps you have something to contribute. In recent years, I have seen a level of cooperation not seen previously. Units and individuals are leaning on and supporting each other with great success. The continued structural and IT&E development of our new ACCIS MOC in a manner that best prepares our people to deploy with a rapidly evolving LCSS within the CAF demands a team approach. I trust I can count on all of you.

With all this talk of work, I feel it is important to re-state an old adage that has, mostly, served me well: work hard — play hard. You can't have one without the other so I encourage you to put as much energy into playing hard as is expected in working hard. You'll smile more.

army and that it should be a profession unto itself. Although it is unlikely that Major Carruthers could have ever imagined the incredible changes and advances that we have witnessed with communications and information technologies since 1903, his vision is still intact and today's Canadian military communicators are true professionals who are integrated into every facet of the Canadian Armed Forces' operations and readiness, domestically and abroad.

Recognizing the challenges posed on Branch units and organizations due to the pace of operations and ever tightening budgets, I urge the leadership of our Branch to find ways to celebrate our 110th anniversary, whether that is by sending a representative group to Kingston, or to organize activities locally. We can all be proud of the accomplishments of the past 110 years and for all of the work that we continue to do for the Canadian Armed Forces and Canadians both at home and abroad. I am truly proud of being the Branch Leader of such a talented group of professionals and I thank you for your dedication and "can do" attitudes.

VELOX VERSUTUS VIGILANS

Royal Canadian Air Force C&E Advisor

MESSAGE

GREETINGS FROM THE AIR STAFF! THE RCAF has seen numerous changes over the past few months, not least of which is a new Commander. LGen Blondin is forging ahead with the newly emphasized themes set out by LGen Deschamps, including C2ISR, cyber, and space, all of which will require increased involvement and innovation from ATIS and CELE. For those of you who dress more fashionably than I do (that is to say, most everyone), you will be happy to know that alternative options are presently being sought for the blue CANEX windbreaker. On the ceremonial side, the new RCAF mess kit should be coming soon as well.

This autumn, we also bid a fond farewell to our illustrious ATIS Tech, CWO Miles Barham, who is taking his retirement after serving as "The" RCAF CWO. Fortunately he will remain a bit longer in an advisory capacity on the air staff. Congratulations and well done! Following in the successful footsteps of LCol Don Mulders, a newly rejuvenated A6 staff, led by LCol Eric Charron, put on a tremendously successful A6 Conference in Kingston in October. The fall season also saw another two dozen up-and-coming officers graduate from the AOCCIS course. Kudos to the course staff, LCol Cam Stoltz, Maj Brian Briere, Maj Dave Jones, and Maj Jennifer Foote for their commitment and professionalism, and thanks for a great assist, courtesy of Capt Dawn Urzinger.

High praise to the fine folks at 8 ACCS Trenton for their outstanding performance in the Northwest Territories at Op NANOOK this past summer. In addition to moving the operational yardsticks in providing full motion video for the Commander, our treasured "Gypsies" gave



Col S.N. Lew

a big boost to the local community in repairing the FM radio station that had ceased broadcasting in April 2012. Thanks to some community-minded ATIS techs, "WKRK in Tsiigehtchic" is now back on the air. We are proud of you! BRAVO ZULU.

Speaking of BZ, PeeverPoint has just been buzzing like crazy these days. The success of this Sharepoint site would have made the creators of Diet Crystal Pepsi envious. There has been some great discussion on such topics as how WTIS can support WOps and whether a restructure is required or are there some clever ways of achieving the desired effect. Other discussion

threads talk about potential new roles for ATIS or about deployment experiences and lessons observed (but perhaps not yet learned). In all cases, it is clear that a lot of thought has gone into the discussion, and I hope that this will generate ideas across the Branch. If for some reason you do not have the link to this website, just drop a quick "Bonjour" to CWO Bryan Peever. Please keep it coming; we want to hear from you!

In addition to great people out there, we also have new equipment coming. New PAR and ILS systems are already being implemented at numerous wings across Canada. The JCS(Air) project continues its roll-out of FlightPro operations management tools. Even PER season will be easier now (especially for those without floppy disk drives) as new wallet-sized USB memory cards are being distributed.

2013 is shaping up to be another promising and exciting year for the RCAF. And ATIS and CELE will be there to help blaze the way. Through adversity to the stars.

Per Ardua Ad Astra

Commander Canadian Forces Information Operations Group

MESSAGE

AS I WRITE THIS MESSAGE, FLYING BACK FROM Alert, one of the long-standing important locations for CFIOG, on a new C-177 Globemaster, I am struck by how this situation reflects my own experience of returning to command CFIOG after 7 years away - that is, how things are a mix of both the "established" and the "new".

At first glance, the "established" comes from a high level look at the organization. The Formation is still comprised of the Headquarters and its subordinate units, CFEWC, CFNOC and CFS Leitrim, who continue to demonstrate outstanding professionalism in executing their current mandates and responsibilities in support of CF operations and requirements. This has and continues to be done through a deliberate and reasoned use of our own capabilities and those of our partners.

Looking more closely, however, the "new" is reflected in a number of evolving responsibilities - projects for new capabilities, a re-orientation of existing capabilities and the development of tools, processes and organizations that will allow the CF to defend and leverage the cyber environment for operational advantage.



Col F.J. Allen

More than ever, the importance of developing, delivering and employing joint C4ISR capabilities is being recognized. One look at the project priorities on the revised Investment Plan (IP) drives home this fact. CFIOG units will be the direct users of some of these key projects, allowing them to deliver improved EW, SIGINT and Network Defence capabilities for CF operations.

But even as these projects deliver, changes in the operating environment, both threats and opportunities, have driven a re-examination of the current ways of doing business. That has meant different things

to the different units, be it focusing on a rebuilding after sustained surge operations in Afghanistan, delivering effective EW support to the environments, or re-orienting network defence towards areas of greatest operational risk vs greatest network activity.

This leads to the work of the Cyber Task Force in CFD, who are shaping the future of CF operations in the Cyber environment, within which the current activities of CFIOG already take place. CFIOG has also been engaged in pioneering concepts and new capabilities for

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110 Years of Service

The Beginning of Canada's Communications and Electronics Branch

Unit and Branch events are conducted every year during the first week of October to mark the anniversary of the Communications and Electronics (C & E) Branch. In 2013, the Branch's rich history and honoured service will be recognized by Her Royal Highness the Princess Royal, who will present the Branch with a Royal Banner in commemoration of our 110th Anniversary. Some of the other events to be held include the launch of *Semaphore to Satellite*, a book showcasing the history of the Branch; a C&E Branch 110th Anniversary Gala; an Open House at the C & E Museum; and an Oktoberfest-themed reunion party. These events will be held in Kingston, Ontario. A complete list of events can be found on the next page; throughout the next year, updated information will be posted on the C&E Branch website at <http://www.commelec.forces.gc.ca/index-eng.asp>.

Now in the beginning, before the birth of the C&E Branch as we know it today...

It is February 1899. Back in Canada they are just getting through a record cold snap. Here in South Africa, the dawn sun is already threatening to bring its daily dose of summer heat. Your canvas uniform that brought you half way around the world was new when it

was issued. Although it started as a sharp khaki, it quickly faded to an off white colour and is covered in a generous amount of dust that was always present in the unforgiving landscape. Your white helmet looked sharp on parade and gave you a very imperial look, but you already "dyed" it brown with the help of coffee to blend into the background.

From Quebec City to South Africa, your journey across the seas was on a crowded, less-than-luxurious converted cattle steamer. Converted, but still keeping the lovely aroma of its previous occupants. A total of 1,010 men, 41 officers and seven horses made the journey to support the British Empire in a war against the Boers of South Africa.

As a signaller, you used every modern means of communication available: dispatch riders, visual signals, signal lamps and carrier pigeons. The telegraph and modern "telephone" proved difficult, as the Boer commandos were quick to sever the lines as soon as they were repaired. That wonderful new invention, the "wireless", was introduced in service and in no time you were furiously sending communications to your headquarters at a record 16 words per minute — at least when you weren't watering your horse or feeding the birds.

The Second South African War, 1899-1902, (also known as the Boer War) is often recognized as an important milestone in the establishment of Canadian identity. It was during this war that Canada provided its first official deployment of troops overseas. It also was the impetus for the creation of the British Empire's first independently organized Signal Corps, which is still in place today known as the Communications and Electronics Branch.

On 24 October 1903, General Order 167 was authorized, marking the formation of the Canadian Signalling Corps Militia. Based on his observations during the Boer War, then Capt Bruce Carruthers identified a need to unify the use of communications to increase the efficiency of the fighting forces. The current organization, the Communications and Electronics Branch, was established in 1968 following the integration of the Canadian Forces. From early telephone and telegraph communications to cutting edge computer and satellite technology, the Branch has seen and championed their use to provide the Canadian Forces with effective communications.

Commander CFIOG — Continued from page 5

that operating environment, working closely with partners and allies in these areas. As the work of the Cyber Task Force progresses, the role of the CFIOG Formation in supporting and delivering synchronized CF operational advantage within the Cyber environment will be formally defined.

The co-existence of the "established" with the "new" brings challenges, without question. But as I have seen since my arrival, the members of CFIOG, like all members of the C&E Branch, are nothing if not creative and adaptable professionals. And with these qualities and attributes, we can be confident that we will meet all of these challenges with success.

Branch Chief Warrant Officer's Message — Continued from page 3

adapt to challenges; it makes us innovative, quicker to adjust and enablers/example of Joint Operations.

On our tours, the Branch Advisor and I were impressed by the commitment and attitude displayed by all members. Those in SSG and in the SSUs face challenges in moving forward and getting the job done where the environment is fluid, requiring us to adapt. Those remaining in the Bases, Wings and Garrisons refocus on their mandates with much smaller teams with leaders that have less flexibility of manoeuvre. We also had an opportunity to be part of the CFS Leitrim Professional Development Day. I'm truly impressed with the Technicians, the operators (Sig Int, & ACCIS) that are the first line of defence of the network and tools that all of us use on a daily basis.

The environment of change is a reality that we live with and I believe that its lessons is what enables us to set up and operate on any piece of dirt or ice anywhere on the globe with success. Take the time to mark 110 years of Military Communications in Canada and the role you play in it. It's our heritage and your legacy.

C&E Branch Celebration 2013

Schedule of Events

Tuesday 22 Oct 13

0800–1700 hrs C&E Branch Subbies' Course & Sgts' Course, Day 1

Annual Branch heritage activity; OPI: C&E Branch Adj; CFB Kingston

Wednesday 23 October 2013

0800–1700 hrs CF NetOps Symposium, Day 1

OPI: Maj Linehan, CFIOG; Venue TBC

0800–1700 hrs C&E Branch Subbies' Course & Sgts' Course, Day 2

Annual Branch heritage activity; OPI: C&E Branch Adj; CFB Kingston

Thursday 24 October 2013

0800–1700 hrs CF NetOps Symposium, Day 2

OPI: Maj Linehan, CFIOG; Venue TBC

0900–1000 hrs Carruthers Gravesite Ceremony

Proposal to conduct as usual; OPI: CFJSR; Cataraqui Cemetery, Kingston

1130–1200 hrs HRH Welcome Ceremony with a 100 pers C&E Guard of Honour

A public event in front of HRH's hotel (downtown Kingston);

OPI: Maj Priems; C&E Guard provided by ATESS with support from 8 Wing TIS, 5 GSS Trans, CFIOG. HRH will meet MERCURY TREK II bike team

when she reviews the Guard; Battery Park, Kingston

By invitation event for VIPs; OPI: Capt Robelin, 33 Sig Regt;

The Residence Inn by Marriott, Kingston

Samll service to honour C&E members who have died in service; OPI: CFJSR;

Vimy Gate Monument, CFB Kingston

By invitation; OPI: BGen (Ret'd) Simpson, Book Project Exec Cmte;

includes informal dinner with HRH; Vimy Officers' Mess, CFB Kingston

Appetizers and hors d'oeuvres will be served to guests;

The Residence Inn by Marriott, Kingston

1200–1400 hrs Celebration 2013 Opening Reception

1410–1430 hrs Vimy Gate War Memorial Service

1430–1730 hrs *Semaphore to Satellite* Book Launch Ceremony with HRH as Guest of Honour

1900–0200 hrs C&E Branch 110th Anniversary Gala with HRH as Guest of Honour

Friday 25 October 2013

0900–1700 hrs C&E Branch Home Station Open House

Open to the public; includes eqpt displays from C&E units;

OPI: Maj C. Niquette, 1 Cdn Div HQ

0900–1000 hrs Pre-Parade Reception with HRH

By invitation; OPIs: 31 & 32 Sig Regts; Vimy Officers' Mess, CFB Kingston

1015–1115 hrs Soldiers' and Veteran's Parade with HRH as Reviewing Officer

Presentation of Royal Banner; OPI: Maj L. Doyle, 21 EW Regt;

KMCSC SAM Gym, CFB Kingston

1200–1400 hrs Luncheon Reception for HRH

OPI: Maj L. Doyle, 21 EW Regt; KMCSC SAM Gym, CFB Kingston

1400–1530 hrs HRH tours Open House

HRH escorted by Branch Leader and Col-Cmdt;

OPI: Maj C. Niquette, 1 Cdn Div HQ; CFB Kingston

1530–1700 hrs Afternoon Reception with HRH

By invitation; OPI: LCol E. Buzzanga, 34^e Regt Trans; Military C&E Museum

1700–1830 hrs HRH tours Open House and Museum

HRH escorted by Branch Leader and Col-Cmdt;

OPI: Maj (Ret'd) M. DeNoble, Mus Dir; CFB Kingston

1900–0200 hrs C&E Branch 110th Anniversary Reunion Party

Informal gathering; OPI: Capt K. Schott, 76 Comm Gp/CFCMU;

KMCSC Field House, CFB Kingston

Saturday 26 October 2013

0900–0930 hrs Departure of HRH from Kingston

Farewell by Branch Leader and Col-Cmdt; OPI: Maj A. Ferriss, HRH Visits Coord

All Day Mini-Reunions (to include The Signallers Club of Canada members' meeting and social)

and Maj L. Fischer, Lead Planner; The Residence Inn by Marriott, Kingston

OPI: Retired community; Venues TBC

(Signallers Club event to be held in WOs' and Sgts' Mess)

0900–1700 hrs C&E Branch Home Station Open House

Continues from Friday; OPI: Maj C. Niquette, 1 Cdn Div HQ; CFB Kingston

Sunday 27 October 2013

0900–1200 hrs Celebration 2013 Farewell Breakfast

Breakfast served by Branch Leaders; OPI: Maj D. Gagnon, Army G6 Staff;

Routledge Hall Dining Facility, CFB Kingston

CFSSG Declares IOC

LCOL R.S. JARRETT, DCOMD CFSSG

ON 15 OCTOBER 2012, COLONEL Martin Girard, Commander of the Canadian Forces Shared Services Group (CFSSG), declared that CFSSG had reached Initial Operational Capability (IOC).

The CFSSG was established as a CF formation on 9 May 2012 by the Minister of National Defence, Peter MacKay. The formation's Canadian Forces Organizational Orders (CFOO) were subsequently approved on 5 October 2012, formally setting its place in support of the Government's recently formed department, Shared Services Canada (SSC).

SSC was established to provide the Government of Canada with an enterprise-wide approach to email, network and data centre services, and as a result, some DND civilian employees were transferred to SSC. However, CF personnel involved in the delivery of the IT services for which SSC is now responsible will remain under a Canadian Forces military chain of command, be paid by DND, be employed in a manner consistent with a "lawful duty as



Col Martin Girard (right) assumes command of the Canadian Forces Shared Support Group from Col Gilles Dufour. MGen David Neasmith, COS(IM), presides.

personnel assigned to deliver SSC IT services in support of DND/SSC IT operations and transformation efforts.

The CFSSG has been assigned four main tasks by COS(IM):

- ◆ Exercise CF command and administration of CF personnel assigned to deliver SSC IT services to DND/CF;
- ◆ Be the departmental lead for IT Service Management in support of the SSC transition;

Units (SSUs) located in Edmonton, Petawawa, St-Jean and Halifax, and 18 Detachments and five Sections spread across most of the bases, wings and garrisons in Canada. The units are within the Regular Force, and assigned by the Chief of the Defence Staff (CDS) to the Information Management (IM) Group.

The official stand-up of the CFSSG (HQ) occurred on 4 July 2012 with the appointment of the current Commander, Col Martin Girard. The stand-up of the four Regional Shared Services Units (SSUs) took place at a ceremony on 21 September 2012, at which time the four incoming Commanding Officers assumed command of their units.

CF members assigned to CFSSG Detachments and Sections will, in concert with their local SSC counterparts, deliver e-mail, data centre and network related services at the CF bases, wings, and garrisons on behalf of SSC. The members will remain under command of the CF, but be operationally responsive to SSC.

Transfer of Command Authority (TOCA) of the 200 plus previously identified CF personnel delivering the IT services mentioned above, is to occur late October/early November 2012. At that time the positions will have been transferred, and personnel will be formally posted from their current service provider organizations to the CFSSG units.

The publication of the Shared Services Canada Act, which received Royal Assent on

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The Commander and his four new CO's. From left to right: LCol Mike Woolley, CO SSU (West); LCol Neil McKenna, CO SSU (Central); Col Martin Girard, Comd CFSSG; LCol Tim Malo, CO SSU (Atlantic); and LCol Paul Chamberland, CO SSU (East).

contemplated by the National Defence Act," and continue to be subject to the Code of Service Discipline. In most cases, CF members will continue to work in their current locations.

The mission of the CFSSG is to: execute command and administration of CF

- ◆ Support transformation efforts for DND/SSC IT services; and
- ◆ Maintain situational awareness of SSC Corporate Services processes.

The CFSSG headquarters is based in Ottawa, with four regional Shared Services

The Signallers Club of Canada

LCOL T. CHARTERS (RETIRED), CLUB PRESIDENT

YOU ARE SPENDING OR HAVE SPENT many years of your life serving Canada as a military communicator in the Canadian Forces. You have served with hundreds of other military communicators all over the world and count many of them as your friends. How do you keep in touch with them as they move around, retire, organize reunions, etc? Facebook, email or maybe not at all!! There is an organization that provides the means for you to stay in touch, to keep informed about military communications happenings, to socialize with like-minded folks, to swap stories, to help preserve our history and legacy by supporting the C&E Museum and other regional military communications clubs and associations, and to link to communications units both

regular and reserve. That organization is The Signallers Club of Canada. Yup!... I know that The Sigs Club was formed by a motley crew of Army Signallers back in 1980 and incorporated in 1984 hence its name, but it is now a Club of over 700 members from around the globe. A Club that is wide open to ALL serving and retired military communicators both regular and reserve and their spouses and to DND civilians with similar communications affiliations. Now that is a big community; about 10% of the entire CF membership. So it is fitting that over the years the Club has itself evolved into a well used communications hub that both originates and retransmits information of interest to and from its members and other communications organizations. Membership

gets you access to the members' section of our website and you will receive news and updates via our blog, emails and newsletters plus a Club decal and name tag. You can also attend our great BBQs, mixed dinners and monthly luncheons that are held in the greater Kingston area. For those who have retired or will retire after 01 Jan 09, your first year of membership is FREE; you can then renew it for a paltry \$15/year or \$100 for life. While we eagerly await the publication of the new C&E history at our 110th Anniversary Celebration in Oct 2013, I invite you to visit www.the-sigs-club.ca to add your name to our growing list of connected military communicators.

VVV

CFSSG Declares IOC — Continued from page 8

29 June 2012, established SSC as a department and further reaffirmed the Government of Canada's commitment to SSC's mandate, which is to streamline, consolidate and standardize IT infrastructure services in order to reduce costs and improve email, data centre and networks across government.

Reaching IOC is a significant milestone for CFSSG, one that will put an IM Group presence on-site to help SSC carry out its mandate and, more importantly, ensure continued success in IT transformation and operations.



A key activity on the road to IOC was the securing of appropriate accommodations for the four new Shared Services Units. Mr Norm Beaugard, a member of the SSU(C) Regional IT Transformation Section, played a significant leadership role in the planning, organization and coordination of new SSU(C) accommodations in CFB Petawawa to enable better support for the Ontario based members of this new unit. One of the final activities was the design and installation of a new unit sign.

Colonel Commandant's Message — Continued from page 2

Smith, CIO of The Pew Charitable Trusts and author of the CIO career guide *Straight To The Top* says: "We are moving from classic design, develop, and deploy to collaborate, integrate, and secure."

Finally, I would like to leave you with three statements that relate to interesting discussions held during the last professional development week in Kingston and that I consider key to a successful career in our Branch:

- ◆ Research shows that knowing a second or third language makes you smarter because you are able to adapt to and switch between certain mental tasks better than those that know only one.

- ◆ A number of studies have shown links between regular physical activity and increased intellectual capacity, productivity, and creativity.
- ◆ Real motivators are things like:
 - the opportunity to achieve important things,
 - recognition of achievements,
 - possibilities of learning to improve, and
 - being part of a team.

On that note, I wish all of you a summer full of sunshine, so that you may enjoy your favorite summer activities, significant progress towards the Branch strategic objectives, continued successful delivery of C&E capabilities to the CF and hopefully rewarding vacations.



1 Line Squadron, Canadian Forces Joint Signal Regiment Hosts International Jean Romard Challenge

MAJ S. GILLINGHAM, CFJSR

IN PREVIOUS YEARS 1 LINE SQN HAS BEEN involved in professional development (PD) trips to both the United Kingdom (UK), in 2010 and the United States of America (USA), in 2008. These trips proved to be great venues for fellow NATO allies to come together to share knowledge and skills in terms of the Line trade having relied on some of these relationships on international operations as recently as Afghanistan. In this

were quick to impress the hosting linemen with bragging rights earned.

With an opportunity to offer some Canadian sightseeing, the international soldiers were escorted on a visit to Ottawa for a tour of the Canadian War Museum and a brief intro to Canadian money... at the Mint. With the arrival of eager participants from various locations throughout Canada all vying for the honour of bringing the Jean

supposed to test their abilities as linemen and at the same time create a better esprit-de-corps in the line trade.

The weather cooperated and the day opened with a welcome address by LCol Carr—in the capacity of the A/BComd and more notably fitting, the first Officer Commanding 1 Line Squadron. Each of the 13 four-man teams commenced on 1 of the 12 events competing for best times and



spirit of collaboration, 1 Line Squadron of the Canadian Forces Joint Signal Regiment (CFJSR) hosted a week of PD for the UK, US and Canadian Linemen.

The event was held 4–9 June 2012 at CFB Kingston and was intended on fostering international relations as well as enhancing trade knowledge between the Canadian Linemen and those from the UK and USA.

From the arrival of the international participants, 1 Line Sqn as hosts, wasted no time getting through initial introductions and straight to the pole orchard/training antenna for instruction, demonstration and plenty of practice. This certainly served as a confidence builder to be tested at the end of the week and for soldiers not familiar with climbing techniques and procedures, each

Romard Trophy home with them, the focus quickly shifted from enjoying a relaxed atmosphere to one of desire and burning intent to win.

The name Jean Romard was given to this competition in recognition of CWO Jean Romard (ret'd), who was the first French-speaking CWO of the line trade - 052. Originally based on technical skills and knowledge (from 2000 to 2005), the competition has evolved to become more of a fun event. In 2006 (the seventh edition), the challenge received this makeover. The competition has also adopted a team approach to events and not individual soldier skills. The first competition in 2000 was organized jointly between the members of QGET and the Sigs troop of the 5^e GSS Valcartier. It was

rotated throughout the day from lashing cable, climbing towers and pulling cable through man holes—all stands tested the skills, ability and physical endurance of each team member. With 1 Line Squadron capturing the top 3 positions, the Jean Romard Trophy will remain in Kingston another year—the effort, skills and abilities exhausted throughout the day demonstrate outstanding trade and soldier skills leaders have come to expect from linemen regardless of rank, experience or nationality. The friendships, new and renewed, will serve the trade and respective nations well when each seeks support from the other on deployed operations, or simply to find a friendly face in a foreign country.

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A Special Day for GoSecure, 34 Signal Regiment and Two Regiment Members

LCOL S. VIAU, FORMER CO 34 SIGNAL REGIMENT

ON OCTOBER 3, 2012, EMPLOYER RECOGNITION DAY, LCol Viau, Commanding Officer of 34 Signal Regiment, visited GoSecure Inc to present company President Pascal Fortin with a certificate of appreciation for the outstanding support provided to members of the Canadian Army Reserve and two members of 34 Signal Regiment in particular.

With a fine understanding of the importance of the role of the Canadian Forces and reservists' efforts in support of the CF mission, Mr Fortin is very open-minded in his approach when an employee seeks leave to take part in career progression training or direct support to expeditionary or domestic missions.

In the current circumstances, Mr Fortin allowed two of our reservists (Capt Ta and Lt Robinson) to participate in missions in Afghanistan and at home while continuing their professional development. Such sincerity has earned him the respect and loyalty



of his employees while giving the Canadian Forces members who are also trained in military matters while possessing outstanding civilian experience.

The contribution of Mr Fortin and his GoSecure team is exemplary and shows that partnership is a win-win solution for everyone when we work as a team.

As a former Canadian Forces Reserve engineer officer (1995–1998), Mr Fortin continues in various ways to actively support many reservists in their career progression, both civilian and military.

C&E Branch Charity Golf Tournament 2012

WO P. DOOLEY, CO-CHAIR OF THE 29TH ANNUAL C&E BRANCH/MUSEUM FOUNDATION CHARITY GOLF TOURNAMENT, CFSCE

ON THE 16TH AND 17TH OF AUGUST CFB KINGSTON AND the Home Station hosted the 29th Annual C&E Branch/Museum Foundation Charity Golf tournament. This year the annual event was well attended by over 170 personnel. The participants consisted of several companies within the Communications and Electronics field and by Branch members both currently serving and retired. Of note was a foursome coming from CFB Galetown and a person coming from Shilo. Truly impressive to have units from across our country support their members by allowing them to attend this excellent event. On Thursday afternoon the event was in full swing, and after the first round participants were invited to a Meet and Greet held at the wonderful C&E Museum. Initially, Friday morning looked very dreary and wet but the skies quickly cleared just before the opening Tee Off (Thanks Chief!). This round was followed up by a BBQ and the of course prizes.

A special thanks to the sponsors that supported this event via our Museum Foundation: Valcom, CFN, Bell, Calian, Com-Net, Thales, Anixter, Secker, Freedom 55, Microage, GD C4, ADGA, Zycm, Lafarge, Wesco and Glen Beaton for without your continued generous support we would not be able to conduct this worthwhile event at such a high level. Of course, additional thanks go to the Home Station, the Branch, volunteers and the committee: WO Terry Hamilton, WO Al Aitchison, Sgt Roger Asuncion, Ms Jan Race, Mike DeNoble (Maj ret'd), and Tony Fequet (CWO ret'd)

Next year will be the 30th Anniversary, held 15–16 Aug 2013, and already it promises to be bigger and better than this year's very



From left to right: CWO Marcel Dinelle, C&E Branch CWO, Maj (Ret'd) Liam Porter, Thales, BGen (Ret'd) Pep Fraser, Chairman C&E Museum Foundation and Col Steve Sibbald, C&E Branch Advisor. Photo courtesy of CFB Kingston Base Imaging.

successful event. The Home Station is looking forward to seeing a terrific turnout for this landmark year and I would encourage units from across the CF to support this notable occasion.

EXERCISE NORTHERN MERCURY 2013

Harris Digital Transceiver. This radio is capable of operation within the context of HF Internet Protocol. Each detachment would test three antennas while in location (Fanlite, Near Vertical Incident Sky wave Whip, and Special Operations Forces 230), conduct time of day drills and record the results of their findings.

The proposal was accepted in principle with direction to move forward with the planning. The first challenge was finding the QRTs. A call went out to the Joint Strategic Communications Support Services department of the Assistant Deputy Minister, Information Management (ADM(IM)) and work began to source the required terminals. Before long it was realized that only four QRTs existed in the CAF that held the new transceiver and are capable of conducting HF Internet Protocol operations. The remaining two terminals would have to be built by modifying legacy systems still in service. Through the tremendous efforts of Master Warrant Officer Steve Hues, JSCSS, he was able to source and provide the necessary equipment to the team at Aerospace and Telecommunications Engineering Support Squadron (ATESS) Trenton in time to put together the remaining two systems. Master Warrant Officer Hues' dedication was without question one of the determining factors that contributed to the overall success of the exercise.

With the task of building the hybrid QRTs in motion, the next step was to assemble the team of 24 signals personnel in Canadian Forces Tasking Plans and Operations (CFTPO) for the exercise. This was a much easier task as the desire to participate from across the CAF was overwhelming. So much so that it was decided to make this exercise a truly joint affair and all three elements of the CAF were included. The CFTPO was filled in very short order with three detachments from 5 QGET in Valcartier QC, one detachment from Maritime Forces Atlantic (MARLANT) in Halifax NS, one detachment from 39 Canadian Brigade Group Signal Regiment in Vancouver BC, and one detachment from 1 Canadian Air Division (1 CAD) in Winnipeg MB.

As word of Ex NM 13 began to spread it was only a matter of time before our brethren from the Canadian Forces Affiliate Radio Service (CFARS) community came knocking, and shortly thereafter the Royal Canadian Mounted Police (RCMP) and amateur radio associations within the territories.

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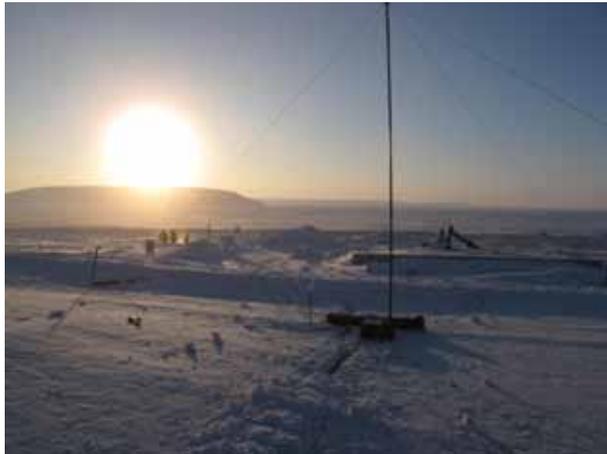
MWO P. ELLSWORTH, CCO, JTFN HQ, YELLOWKNIFE, NT

IN FEBRUARY 2013, JOINT TASK FORCE (North) (JTF(N)) brought together a joint team of communications operators and technicians to conduct the first northern High Frequency (HF) exercise that the Canadian Armed Forces (CAF) has run in more than a decade. Exercise Northern Mercury 2013 (EX NM 12) was born out of an idea to rediscover HF in the CAF and promote its long distance communications capability. In late 1999, some of you may recall the events leading up to Year 2000 that resulted in Operation Abacus being stood up. That is when many countries around the world, including Canada, reacted to the possible threat that the global mainframe network servers would not roll over to the year 2000. This was the last time HF communications were employed in the high Arctic as the main means of communications and, although we survived that so called doomsday without

incident, HF communications was less fortunate. As the use of HF has waned over the last couple of decades, generations of HF experts have slowly left the military and a new generation has not been exposed and trained in the usefulness of this technology. With CAF commitments increasing elsewhere in the world, satellite communications became the primary means of long distance communications.

In September 2013, the senior signals advisor (J6) and I were tasked to develop the concept for a high Arctic long range HF communications exercise. After making a few phone calls and some preliminary staff checks, we put forth a proposal to deploy six, three-person detachments into Canada's Northern Territories. Each detachment would deploy with a Quick Reaction Terminal (QRT) and the capacity to provide both voice and data communications through the new RF5800

Now things were really beginning to get interesting, not only were we conducting an HF exercise across Canada's north for the first time in a long time, but now we had the potential to incorporate our southern



neighbours, and reach all three coasts east to west and north to south. Mr John Bradley, CFARS' lead planner, could hardly contain his excitement. John has long been a strong proponent of HF communications and is always looking for ways to reinvigorate the collective HF partnership with DND.

At this point, Master Warrant Officer Hues was making great headway with gathering the necessary ancillary equipment and building the hybrid QRTs, the CFTPO was nearly complete, accommodations and land use agreements were being sought and the Communications Electronics Operating Instructions (CEOI) was all but finished. The only thing left to do was book flights and schedule pre-deployment training. It was determined that the best place to conduct the training was at ATESS, at CFB Trenton. Instructors from both ATESS and Canadian Forces School of Communications and Electronics (CFSCE), came together and provided instruction on basic setup and opening up procedures, conducting HF IP frequency programming, basic antenna theory and erecting the three antenna types. We only had a week so the training was fast and furious, and after five busy days, each detachment packed up and prepared for deployment into the North. Two detachments deployed via a CC-130 Hercules from CFB Trenton to CFS Alert and Iqaluit NU, respectively, on 25 February 2013. The remaining four detachments all traveled to Yellowknife where one detachment setup at JTF(N) and the remaining three detachments deployed into Inuvik NT, Cambridge Bay NU and Resolute

Bay NU, respectively, on 27 February 2013. While the detachments were flying out of Yellowknife, we started hearing soundings coming from the detachments already in place at CFS Alert and Iqaluit. Things were starting to come together.

The first couple of days in location were used by the detachments to setup their equipment and get ready for the exercise. At the same time that we were getting ready, CFARS was firing up their systems and listening into our conversations. Mr John Bradley had great success recruiting 22 CFARS operators across the south, spread throughout each of the provinces. With the detachments and CFARS in place, the exercise



officially kicked off 2 March 2013 for the next three days.

I should mention before going any further, that the overall success of the exercise was largely due to strict adherence to a "Master Events List" (MEL), which was developed and implemented by Sgt Nolan Vollmer from 39 Signals Regiment. The MEL was centered around a three day exercise schedule, operating between the hours of 1400 to 0400 Zulu daily and across all five time zones. Day one was dedicated to CAF detachment training only, aimed at testing each antenna type with the RF5800 radio in various data modes of operation, e.g., Third Generation Plus (3G+), Third Generation (3G), Second Generation (2G) and Single Side Band (SSB). The detachments employed a combination of messaging applications, such as Wireless Messaging Terminal (WMT), Outlook E-mail, and Tactical Chat. All three antennas had varying degrees of success, however the whip

and SOF-230, proved to be the antennas of choice, as they not only performed beyond expectation, they were more easily erected and demanded a smaller area to set up in.

Day two was dedicated to SSB, voice communications, aimed at linking in as many exercise participants as possible. This is where the outside players were able to join the exercise. This was probably the most exciting and gratifying day of the exercise as the 22 CFARS stations, two RCMP detachments from the Northwest Territories, one amateur radio operator from the Yukon and two RCAF stations in Trenton ON all communicated over HF means to some or all of our six detachments. While the voice communications may not have been ideal, we did manage to pass message traffic north to south and east to west across the country.

Day three was dedicated to passing both data and voice traffic between the six detachments and capturing the maximum data throughput. The amount of data throughput was directly affected by two factors, the mode of operation and the messaging application employed. As such, the best results found were using the Outlook Express applications, in 3G mode. Through this means we were able to send 1-2 Megabit files, over a distance of 1000+ Kms, within a 2-3 minute period. It is interesting to note, however, that while this



was an excellent test of capacity throughput, the Tactical Chat application over 3G, was proven to be a very effective real-time means of passing instructions between operators, (an engineering circuit if you will). The exercise tested HF frequencies between the 15-30 Mhz frequency band; well above the norm for HF operations in the High Arctic environment. The detachments were also able to conduct phone patches through the Naval Radio Stations (NRS) located at Halifax, NS and Esquimalt,

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Knokke Heist 2012 — A Legacy of Commemoration

MAJ D. KUCHERHAN AND MS. C. VILLENEUVE

THOUSANDS OF KILOMETRES FROM Canada on a distant Northern European Estuary, Canadian Forces marchers and colleagues are honoured. Canadian Flags are draped from the balconies of small European homes distinctly marking the 35km route and warm smiles are on display from locals, many of whom still today remember the day they were liberated from the Axis forces. Bagpipe melodies echo through the narrow, building-lined streets and over the alarmingly flat countryside where wreaths sway from the cool breeze in commemoration of those who fought so feverously for freedom.

Scheldt Estuary by the First Canadian Army in the fall of 1944. Although relatively unheard of by fellow Canadians, this popular autumn event draws thousands of outdoor enthusiasts and local figureheads to the region in order to relive the thrill of freedom's return. The main activities over the course of the four day event are several solemn commemoration ceremonies, a



Canadian Infantry of the Regiment de Maisonneuve, moving through Holten to Rijssen, Netherlands. Lt. D. Guravitch, April 9, 1945. Source: <http://www.canadaatwar.ca>



Over sixty-seven years ago the community of Knokke-Heist, on the Dutch border near the North Sea coast of Belgium, was surrounded by the occupying forces. In 1944, Operation SWITCHBACK ordered the recapture of the Belgian East Coast, Zeeland, the Isle of Walcheren and Zuid-Beveland by Allied Forces, where more than 6,000 Canadian soldiers became casualties. The picturesque European countryside was transformed into a thick quagmire of mud accompanied by torrential rains, making mobility and survivability extremely challenging. In early November following five years of intense battle between Forces, the entire region was liberated by Canadian and Polish soldiers. And locals have not forgotten.

Knokke Heist is an annual celebration of one of the more significant events in Canadian history: The Liberation of the



visit to two stunning battlefield museums and a culminating day-long march through the towns of the Netherlands and northern Belgium.

The 39th Knokke Heist Liberation march will take place from 2–5 November 2012, with a 30 military member contingent representing the Canadian Forces. The event will also be host to teachers, students and family of the Tri-border community to follow the footsteps of our forefathers and relive the Canadian military history of the region. For more information, see the following links or contact the Knokke Heist 2012 D/OPR, Major Daniel J. Kucherhan.

www.canadamuseum.be

www.forfreedommuseum.be

CFIOGHQ Detachment Georgia Organizes Small But Important Remembrance Day Ceremony

MS RENE CHARTRAND

ON NOVEMBER 11, 2012, AS THOUSANDS OF PEOPLE GATHERED at Ottawa's National War Memorial in Confederation Square for the Country's largest Remembrance Day ceremony, the members of the Canadian Forces Information Operations Group stationed at Fort Gordon, Georgia came together for our own, smaller act of Remembrance. The ceremony didn't include a pair of CF-18 fighter jets or a 21 gun salute, just a group of nine Canadian Forces members, their families, a few spectators, and a Canadian diplomat. The goal, however, was the same: to honour the nation's veterans who fought, and in many cases died for the freedoms cherished by each and every one of us.

It has become tradition that the detachment holds a ceremony at the gravesite of a fallen Canadian service member that is buried in the local area. This year, the detachment returned to Greenwood cemetery in Atlanta, GA to once again honour the memory of Leading Aircraftman (LAC) Frank Arthur Junior Smith who died September 19, 1941 at the age of 24. He was one of approximately nine thousand Americans who served with the Royal Canadian Air Force and one of 800 that made the ultimate sacrifice for Canada. There is limited

information about why LAC Smith decided to join the Royal Canadian Air Force or why he felt compelled to help Canada and her Allies combat the spread of Nazi fascism. In doing so, he risked not only his life, but also violated American Law which could have resulted in the forfeiture of his American citizenship. For his courageous actions he is owed a debt of gratitude.

This year, the detachment returned to Greenwood cemetery in Atlanta, GA to once again honour the memory of Leading Aircraftman (LAC) Frank Arthur Junior Smith who died September 19, 1941 at the age of 24

Our modest event was planned by Master Seaman Trevor McIsaac with most roles being filled by detachment members and their families. The ceremony included a recitation of the Act of Remembrance by Master Corporal (MCpl) Chris Visneskie and a reading of Flanders Fields by MCpl Grant Wager's son Mason. Two wreaths, created by Shannon Couture, wife of Sergeant Jonathan Couture, were laid at the gravesite on behalf of the Canadian Forces and the supporting families. An additional wreath was laid by Mr. Robert Pengally representing the Canadian Consulate General of Atlanta.

At the conclusion of our ceremony, Major Sylvain Savard called all to attention to offer a final salute to LAC Smith and to all veterans new and old. Thus ended our humble ceremony, substantially smaller than others, but nevertheless a significant act of Remembrance.

Ex NORTHERN MERCURY — Continued from page 13

BC. A phone patch allows the operator to call over the Public Telephone Switch Network via the HF radio and make a call to a business or home telephone. Detachment members were able to successfully call their home units, parents and spouses while on the exercise. The phone patches with the NRS sites were conducted over a SSB voice link. With a little engineering of frequencies we were able to successfully establish a phone patch with both NRS sites from CFS Alert, Resolute Bay NU, and Cambridge Bay NU.

The successes achieved on Ex Northern Mercury 2013 are directly attributable to the incredible dedication and the collective effort put forth by members of JTFN, JSCSS, ATESS, CFSCE, CFARS, MARLANT, MARPAC, 1 CAD and of course those members of each detachment who deployed into the High Arctic to make it all possible.

Where do we go next and what role will HF communications have in future CAF operations? What challenges do we face in implementing

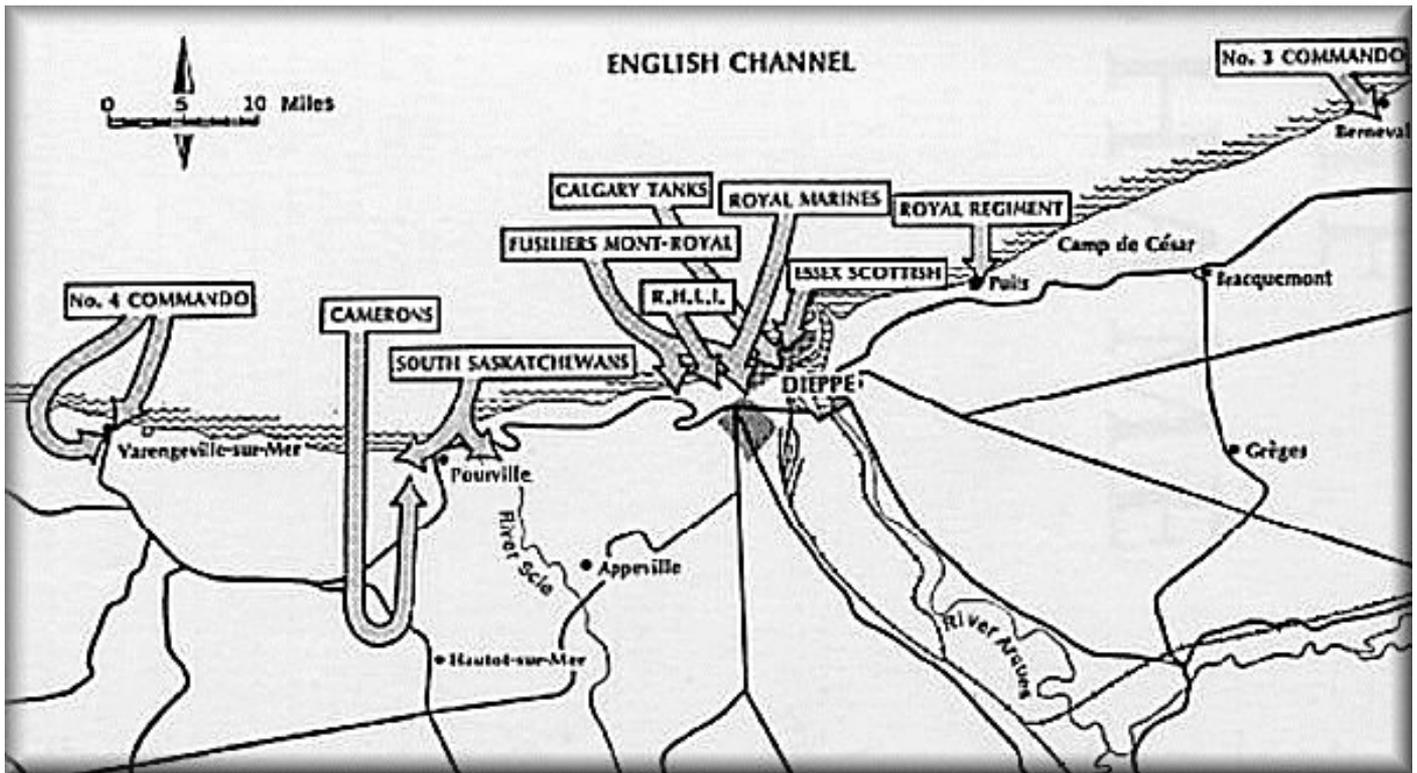
HF as a viable option for communications and not as a replacement; a true complement to our existing communication platforms? Ex NM 12 has barely scratched the surface on what can be achieved with HF equipment. Further training and exercises are needed to really reintroduce this means of communications back into the CAF. Additional testing should be dedicated to utilizing the tactical hub, which enables routing and switching from Very High Frequency (VHF), High Frequency, and Ultra High Frequency (UHF) and satellite communications through the RF5800. Testing of wideband directional antennas for long range communications are also a possibility. We need to restore the ability of the HF Gateways at NRS Esquimalt, CFB Edmonton, CFB Trenton and NRS Halifax to enable the HF IP networking into other networks such as the Defence Wide Area Network (DWAN), the Internet and other secure networks. Indeed the prospects of future HF operations is only limited by our collective imagination to collaborate and plan.

Jean Romard Challenge — Continued from page 10

To SSgt Jennings and his soldiers from 35th Signal Brigade in the US and to Capt Pirt and his team from 10th Signal Regiment out of the UK — the friendships established during this week hopefully will continue to grow, we have a better appreciation for what you do and trust you have taken away the same. We all look forward to our next encounter either at home or abroad.

To the participating teams from SQFT, Gagetown, Petawawa, Edmonton and Calgary — a sincere thank you for your keen interest in the event, participation and determination to win. Members of 1 Line Squadron look forward to meeting you in the next iteration of such an event.

To all members of 1 Line Squadron, well done, you have again impressed.



70TH ANNIVERSARY OF THE

RAID ON DIEPPE

HONORARY COLONEL DAVID HART
34 Signal Regiment



I attended the anniversary on behalf of the Royal Canadian Corps of Signals, having been a Sergeant in the RCCS who participated in the raid as part of the 4th Bde Signal Section. I would also like to acknowledge the efforts of Maj Dan Bergeron who was the point man, together with MGen Neasmith, Col Dufour, Col Sibbald, Director of Signals, Col Chagnon, LCol Blais-Parent, CWO Dinelle and the Commanding Officer of my own unit 34th Signal Regt, LCol Viau, in seeing that my wife and I would be sent on this moving and momentous ceremony.

Paulette Ryan on behalf of DVA contacted us in early July to have us obtain medical approvals for the trip since I was 95 and my wife 94. We both passed with flying colours and so were on the way to meet the delegation in Ottawa at the Southway Hotel and Conference Centre on Bank St. on August 15, 2012. On the same day I received a telephone call from Paulette telling me that she wouldn't be on the trip due to her father's serious illness, but that Ms. Robin Hewitt would be in charge of the delegation. Arrangements for the commemoration were outstanding since Robin fitted seamlessly into the position, aided by many others from DVA who took exceptional care of all seven of the veterans who participated in the raid including me.

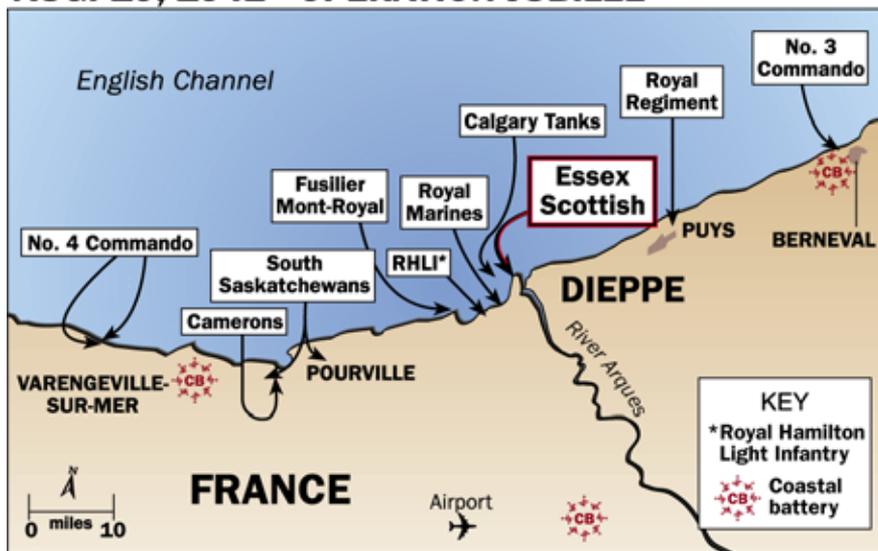
The hotel was very nice and after breakfast on the following morning, there were pictures taken and we were briefed on the events that would take place on our arrival at Dieppe. We had a very nice lunch at about 4 PM and then were loaded on to a bus to go to the Military side of the Ottawa airport, where we embarked on a RCAF Airbus which was so huge, that it dwarfed other aircraft nearby. My wife and I were given two seats in the front which must have been the commander's seats, since they were not

Continued on page 17

only first class in nature but had a folded type of table about 6 feet long, which when opened up, would double as a big map table. There were two identical seats to ours facing us, which housed a naval officer who seemed to have planned the proceedings and a historian. On the left hand seats facing a retaining wall were the commanding officer of the 100 man guard and Major Carl Gauthier who acted as master of ceremonies throughout the events. We were airborne at about 1900 and arrived at Lille, France at 0800 French time where we embarked on a bus to travel to Dieppe arriving at the Mercure Hotel at 1200. I must point out that all our bags were in our rooms and our check-in taken care of by DVA. We had lunch in the hotel and had the afternoon to rest up after the long night and bus ride. Dinner was on our own that night and we rested for the start of the event the next morning.

The following morning we were taken on a guided tour to Puys, Pourville and Dieppe with an explanation by David O'Keefe, (a Canadian military historian and professor at Marionapolis College in Montreal) at each spot of the significance to his film "Dieppe Uncovered" which he has produced after 15 years of research, to prove the real reason for the raid on Dieppe. At Puys we went up the narrow streets to a church situated at the top of the cliff from where the Germans had

AUG. 19, 1942 - OPERATION JUBILEE



an absolutely clear view of both Red Beach, where I landed along with The Essex Scottish and the FMR, as well as Yellow Beach where the RHLI and the Calgary tanks landed. It was no wonder that the beaches were called a killing area. He told us that under our feet at the spot we were at, was honeycombed with caves for the machine gun nests which were not visible by the intelligence planes since they were covered until the attack came. There was also a gun battery on the site which caused so much damage to the tanks and the boats on the beaches. This was besides the awful fire from here as well as a little farther to the left where Blue Beach was, that the Royal Regiment tried vainly to assault facing a sheer cliff. They suffered the most severe casualties of all the regiments involved.

He then continued the tour to Pourville to where 6th Bde landed with both the South Saskatchewan Regt and the Camerons of Winnipeg landed at Green beach. We then came back in to the town of Dieppe,

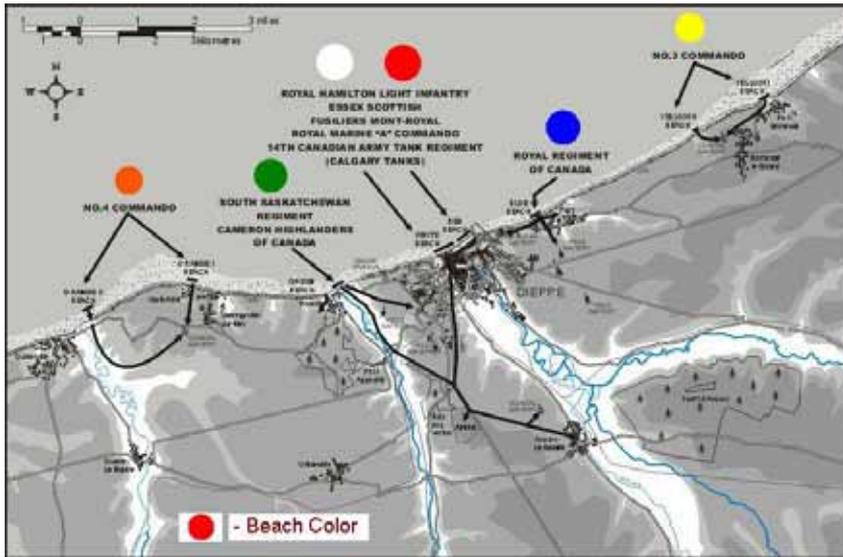
where he showed us the presumed location of the German HQ which according to him was the main reason for the raid, as devised by Ian Fleming who worked with the head of MI5. This German Naval HQ housed highly valued intelligence material which if captured would have shortened the war. British special forces, actually Royal Marine Commandos, but so secret that they were not listed anywhere, were to come up the channel in Dieppe on HMS Locust to assault this HQ. Unfortunately, the fire on this ship was so great that they had to back off and were then embarked on assault landing craft for the same purpose but were unable to achieve their objective because of the intense fire on all the beaches as well as on them.

After we had lunch at the beautiful Horizon restaurant we were taken to see the world premiere of the film "Dieppe Uncovered" which was produced by David O'Keefe. It details the planning and the real reason why the raid was undertaken. He spent over 15 years researching the archives and had gone through at least a 100,000 documents, many of which were so secret that they were only permitted to be released just recently.

We were bussed to Saint-Aubin-le-Cauf cemetery where two RCAF airmen lie buried. Both had been shot down in the raid, and the townspeople had retrieved their bodies and buried them in a place of honour. When the Canadian War Graves Commission wanted to move them to the Official Dieppe Cemetery, the townspeople made a deal to perpetually take care of these two graves. I was given the task of giving the Act of Remembrance in French.

On the actual day of the raid itself the following morning, we were bussed to the Dieppe Canadian War Cemetery (Cimetiere des Vertus) at Hautot-sur-Mer for a Ceremony where the Governor General David Johnston, and the Minister of Veterans Affairs, Stephen Blaney, amongst many other dignitaries from France and Dieppe, gave impassioned speeches and laid wreaths. The

Continued on page 18



Raid on Dieppe — Continued from page 17

seven actual participants were given places of honour amongst the huge crowd, and all of us were called to lay wreaths on behalf of our units. I was very proud to lay a wreath on behalf of the Royal Canadian Corps of Signals, 2nd Division.

We were then bussed back to Dieppe for a ceremony at the Canada Memorial Square which is a lovely spot just below a cliff with all kinds of flowers beautifully tended. Again the seven veterans were given a place of honour amidst the other dignitaries. The population was cordoned off from the square so that the Governor General was able to inspect the guard of honour, and after Last Post and Reveille, wreaths were laid, and again I had the honour of laying a wreath on behalf of Royal Canadian Corps of Signals.

Then the Band and the Guard of Honour began a march along the Esplanade followed immediately by the

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seven veterans, four in wheelchairs with their caregivers or DVA personnel pushing them and then the visiting dignitaries. I have been to several of these commemorations in the past, but I have never seen the enormous crowds that attended this march, all of them calling out “Merci or Bravo!”. It was very moving and I was most impressed that even after seventy years they had such feelings for the people who had attempted to give them hope so many years ago. With the band playing the marches, I soon fell into step and enthusiastically marched along almost as if I were still active. We stopped at three monuments along the way to lay wreaths, the first at the RHLI monument, then at the Fusiliers de Montreal, and finally at the Essex Scottish, in all, a distance of about a mile and a half or thereabouts.

The City of Dieppe then hosted an official reception and lunch for us which was very nice. Subsequent to this we were bussed to Puits for a ceremony at the Royal Regiment of Canada monument, which commemorates the regiment who suffered the most casualties of all the regiments participating in the raid. Even in this little town of Puits, the crowds were enormous and again the participating veterans were given a very big hand, as well as being asked to sign autographs on flags and other memorabilia the same as the previous day in Dieppe.

At 0900 the morning of the 20th we were bussed to Pourville where there were two Memorial Plaques on either side of a monument to the Canadians. The one on the left was for the Camerons of Winnipeg and the one on the right was for the South Saskatchewan Regiment, both of whom had landed on this beach. Once again the participating veterans were seated in a place of honour in front of the cenotaph while the dais for the speakers was to the left where the Governor General, the Minister of Veterans Affairs and the Mayor of Pourville addressed the huge crowd in attendance as well as laying wreaths. We too were given the honour of laying wreaths, and I did so on behalf of the Royal Canadian Corps of Signals. We then marched down to the bridge over the river Scie, which has been named Merritt Bridge, in honour of our VC winner Lt. Col. Cecil Merritt, where we observed Last Post, Reveille and the piper played the Lament. Here, as everywhere else the mobs of people turning out to acknowledge us for our participation in the raid was absolutely incredible.

We were then bussed together with the whole Canadian Forces contingent to the Relais Henri IV at Arques-la-Bataille, for a group lunch hosted by the Governor General. This was a beautiful setting with a big garden where we had wine and some hors d'oeuvres before the meal. The dining room was filled with tables seating about 10 people to a table. There were well over 120 people attending the meal. We were seated with Major Gauthier, the Master of Ceremonies, the Band Master, the CWO of the Guard as well as some other ranks. I took the opportunity during the lunch to visit every table to thank the forces members who participated in the festivities. After the lunch we visited the Dieppe Museum dedicated to the “Memorial du 19 aout 1942”.

On the 21st we departed by bus from Dieppe to Lille, where we had lunch at the Mercure Hotel, and then took the RCAF plane back. However, we had to stop at Prestwick in Scotland in order to refuel, and everyone was able to go to the duty free shop. We got back to Ottawa at about 1800, so were put up in the Southway Hotel and left the following morning. All in all, it was a most wonderful and moving trip and brought back many memories. All of the members of DVA were absolutely wonderful to us.

You can read the CBC article at www.cbc.ca/news/story/2012/08/18/dieppe-macmillan.html, and at the Globe and Mail, www.theglobeandmail.com/news/national/dieppe-remembered-70-years-later-we-reached-the-beach-all-hell-broke-loose/article4487861/?page=all.

Reforming the IADB — Just Another Communications Challenge

CAPT D. LOPES, AIDE-DE-CAMP, IADB CHAIR, WASHINGTON DC

ALTHOUGH INTERNATIONAL DEFENCE cooperation at first glance appears to be a completely different job than what a field unit Sig O would deal with, I propose that the basis of the job and tasks are actually the extremely similar! Essentially, the Sig O is responsible for providing a network (means) to allow coordination between different units/entities. The Sig O would be responsible to ensure information from sections on the front lines would be shared between each other, collected in a logical manner and relayed to higher. The work of the Inter-American Defense Board (IADB) is no different, simply on an international scale. The board is responsible to provide channels of communications between countries and also in gathering "reports" from the different sub-regions and relaying that information to higher headquarters. The IADB is a multilateral organization, which essentially means having three or more parts in communication; very similar to setting up a net between artillery, infantry and armoured elements. Now, if higher were to ask the brigade to report how many rounds of ammunition they had left, it would be a logical assumption that each of the components would send their reports to the brigade HQ, who would compile the data and send one consolidated report. Likewise the board, does the same thing. It would take sub-regional (example: Central America) reports, which would be a compiled report from its member countries (Nicaragua, Panama, El Salvador, etc.), and compile the different sub-regional reports to make a regional (Western hemisphere) report, which we would send to the Organization of American States (OAS) as our higher headquarters. The OAS is a multilateral political forum, similar to the United Nations but only for the Western Hemisphere (North, Central, South America and the Caribbean). Although, not a formal Chain of Command, per se, if one would follow this logic, the OAS, as a regional organization, would relay the report to the United Nation, as the highest global organization.

A Sig O would also be also be tasked to facilitate lateral communication between



"Jimmies" Col LaBoissonniere, LGen Thibault and Capt Lopes in La Paz, Bolivia for a series of meetings after the OAS General Assembly in June 2012

different elements of a battle group (facilitating communication between units operating in the same area or close proximity). Likewise the board could do the same between different region (info exchange between Europe and the Americas, between the Asia-Pacific and the Americas). The Organization of American States is the highest political body of the Western Hemisphere and has a

The western hemisphere on a whole has a number of skeletons in the closet and countless "dead spots" where efficient communication just is not quite possible.

Committee on Hemisphere Security, with which the IADB works in conjunction, so any information would naturally be shared with them. Sounds easy enough, eh?

Like all Sig O's would say, no system operates without faults and problems, and the Board is no different, however (and quite a big however), the consequences of these faults have very big effects.

Building any system in an ideal world of unlimited resources, would be fairly easy, especially if starting from scratch. However, we all know that is not the reality and truly the

Sig O's job is that of making something work with what he has, even if that means working with older technology. The same is true at the IADB, which has recently been criticized as being archaic and out-dated. Under these conditions setting up this network becomes a very challenging task, and this is where Canada, the Canadian Forces and a couple of Signals Officers come into the picture. Reforming and modernizing the venerable IADB, the oldest regional defence cooperation organization in the world, is part of DND/CF's actions in support of Canada's whole of governmental Americas Strategy and is the reason why our former Branch Leader, LGen Thibault, (and yours truly - his trusty ADC) have been dispatched to Washington for two years. One of the big problems in the Americas is that the system or, if you will, the network was originally designed in the early-1940s and over the past 70 years these politically agreed upon objectives, charters and treaties have been tweaked, but are not quite adequate with dealing with the realities of today and thus the target of criticism for being archaic. Imagine if no major upgrades were made to the CF Communication platform since 1940s...Think TCCCS is old?

Continued on page 20



Capt Lopes in Base Fuerte Tolemaida, Colombia, visiting the "Lanceros" (Colombian Ranger) School

Reforming the IADB — Continued from page 19

The western hemisphere on a whole has a number of skeletons in the closet and countless "dead spots" where efficient communication just is not quite possible. Some of these issues stem from the recent history that many of the countries suffered from periods of dictatorships, and there is a general distrust between the civilian and military authorities. To top it off, the need for communication exists between countries there are at odds in terms of ideologies and have a large unwillingness to share due to a perceived compromise in their autonomy and sovereignty (getting people to simply acknowledge receipt or reply to emails is challenging even for a three star general). Ultimately, all these factors combine to create profound difficulties to already complex communications in four official languages (English, French, Spanish and Portuguese), leading to more than a few extra grey hairs.

Regarding those 'dead spots', a good Sig O knows that, "time spent on recce is seldom wasted". So, in the name of the IADB, we have "recced" some very interesting spots: Machu Picchu, small Caribbean islands, Copacabana Beach in Rio and yes, several capitals in South America. We have also had the opportunity to meet a few heads of state, most of 34 countries' Ministers of National Defense or Security and their associated Chiefs of Defense/Security. Also, and again in the name of improving our network, we have participated in events such

Mexican Independence Celebrations (a two day social event known as "Fiestas Patrias") in Mexico City, the Conference of Commanders of the American Armies in Lima, Peru, a private tour of the Colombian Armed Forces Training Center, located in near Bogota, Colombia, a few receptions in beautiful embassies in Washington, DC. Yes, our job sure must appear really hard, visiting all of these exotic locations in the name of defence co-operation... Still, very little time is available to enjoy these

locations as our visits are a series of meetings and conferences intended to clear those 'dead spots' in our network.

Long story short, the IADB and western hemisphere defence cooperation needs a complete modernization, but given the current situation and historic framework, a progressive approach vice a revolutionary method needs to be taken. So, here we are, step by step, working to upgrade different parts of the system in accordance with the Canadian IADB reform agenda. It is a slow and tedious process but there are positives to this network and reasons to remain optimistic. While many other regions still aspire to create dialogue and defence cooperation, the IADB remains one of the best examples for Confidence and Security Building Measures in the world. It would be like having several Sig Os in the mess arguing over beers about is the best way of deploying and employing a network. Although they may disagree and argue, they are still around the table together, and that alone has great value.

Though the system is complex, the terrain unfriendly and bandwidth is limited, with hard work and constant effort, no task is impossible. Like a good couple of Sig Os we tenaciously keep fixing as many faults as we can all with a view to enhancing defence and armed forces cooperation with Canada's partners in the Americas.

VVV



LGen Thibault and the Brazilian "Forca Pacificadora" Comd, discuss the complexities of using the military in internal security operations in Rio de Janeiro, Brazil

Standing Up 36 Signal Regiment

MCPL J.J. MACGREGOR, SQMS 1SQN, CHARLOTTETOWN, PEI

ON THE WEEKEND OF 7–9 SEPTEMBER 2012, LCol Mike Barnett and CWO Jeff Denny spent three days on the road and in the air between Glace Bay, Halifax and Charlottetown. As in previous years, they went to visit their troops and lay-out their expectations for the upcoming training year during the Administration Assistance Group weekend, but this year, there were a few changes. For one, Newfoundland and New Brunswick weren't on the itinerary; and now LCol Barnett was addressing the troops as their Commanding Officer, not as the Group Commander.

On 1 April 2012, 36 Signal Regiment stood-up as a new unit under 36 Canadian Brigade Group, while 72 Communication Group stopped functioning as an active formation on the same date, before being closed out for good



LCol M.S. Barnett, CO 36 Signal Regiment leads the salute to the reviewing officer, LCol J.D. Walsh, Assistant Chief of Staff 36 Canadian Brigade Group during the parade marking the stand up of 36 Signal Regiment.

in July. The stand-up of the new regiment was recognized by 36 Canadian Brigade Group during a parade held at LFAA TC Aldershot on 29 April 2012, during which their Assistant Chief of Staff, LCol J.D. Walsh, acted as the reviewing officer for the parade.

“The brigade has been very good at trying to include us in everything like any other brigade unit,” says LCol Barnett, CO of 36 Signal Regiment. “They’ve been very supportive and enthusiastic about having a signals unit as part of their team, which makes it easier to deal with some of the challenges that come with it.”

On the ground most personnel haven't seen a very noticeable change to the working atmosphere now that we've become 36 Signal Regiment. COs have become OCs, RSMs have become SSMs, and the independent squadrons have become sub-units, but parade nights and weekend training remain virtually unchanged and the same faces are doing the same jobs they

were doing last year if not the year before. There was a period of adjustment to the new squadron names, but while the odd “72X Squadron” name may still slip out from time to time, everyone seems to be growing comfortable with 1 Squadron (Charlottetown), 3 Squadron (Halifax) and 5 Squadron (Glace Bay). That being said for the average soldier from the brigade they are still trying to figure it out and they often jokingly ask “What are you're calling yourself these days?”

The real challenge of adjusting to life under 36 Canadian Brigade Group was with LCol Barnett and his staff at headquarters who had to adapt to a new command structure and policies as they transitioned to being full fledged members of the brigade. The process of forming the new regiment took about two years. At the height of it, LCol Barnett had to manage both the role

of 72 Communication Group Commander and that of the interim 36 Signal Regiment Commanding Officer. In the midst of this change, personnel across the Regiment have had to deal with the CF-wide reductions which have limited resources and seen a significant number of full time positions cut. LCol Barnett credits the success we have had to date to the strong leadership within the regiment, and the professionalism and adaptability of our soldiers.

“The process only worked because leadership at all levels, right from the detachment commander up to the formation leaders, was dedicated to the transformation process — which is never easy.”

36 CBG, too, is adapting to change now that they have a signals unit under their command. While the signals community and brigade units have worked together for many years, the brigade now needs to deal with signals specific training and equipment issues that may not have been on their radar in the past.



LCol M.S. Barnett, CO 36 Signal Regiment, presents Corporal S. Cross with the first ever 36 Signal Regiment Soldier of the Year Award.

At present the training tempo and workload remains very high across the regiment and we are faced with manning and equipment shortages that are by no means unique to this area, but the excellent attitude of the soldiers has allowed us to remain relevant throughout the chaos of restructure.

“I'm extremely proud of all the people in the regiment who have worked so hard to make this process succeed and who are continuing to work hard,” says LCol Barnett.



LCol J.D. Walsh, Assistant Chief of Staff 36 Canadian Brigade Group addresses the members of 36 Signal Regiment during the parade held to mark the stand-up of their new regiment in April 2012.

The Responsibilities of the ATIS Technician in Support of SAREX

CPL T. WELDEGEBRIEL, 17 WING - WTISS, AVCS TECH

EVERY AEROSPACE TELECOMMUNICATIONS Information Systems technician (ATIS tech) wants to be selected for the Search and Rescue Exercise (SAREX). This exercise takes place every year in a different location: this year it was held in Yellowknife, North West Territories. During a SAREX, an ATIS tech provides communications capabilities to the operators that enhance their ability to conduct searches. This presents an opportunity for us to operate our equipment in an uncontrolled environment and test the training we receive while in garrison.

Search and Rescue (SAR) in Canada is a subset of the Minister of National Defense, although it is a shared responsibility of federal, provincial/territorial and volunteer organizations. SAR is initiated by the Joint Rescue Coordination Centre (JRCC) at 8 Wing Trenton by elevating a routine search to “major”, meaning that an initial search was unsuccessful. This year’s SAREX scenario was held in the area covered by 435 (Transport and Rescue) Squadron. Participants in the 435 Squadron SAREX in Yellowknife included



A Search and Rescue temporary Headquarters antenna.



Cpl Orr (left) and Cpl Weldegebriel (right) testing the fly-away kit prior to a deployment.

the Civil Air Search and Rescue Association (CASARA), the Yellowknife Coast Guard Auxiliary, Yellowknife SAR, the United States Air Force (USAF) paratroopers, the USAF 39th Rescue Squadron and 440 Transport Squadron. As 17 Wing Telecommunications and Information System Squadron (WTISS) supports 435 Squadron, we received the request to provide and sustain communications during this exercise. This included radio, telephony, computers and audio visual systems used for the duration of the exercise.

A search and rescue operation requires a plethora of communication equipment, the most important being radios, that are inventoried, tested, and prepared into fly-away kits by the ATIS techs. These kits include the Motorola Proteus/URC-200 which provides consistent high-quality AM/FM transmission of secure and non-secure voice and data. It operates in the frequency bands used by maritime, land/mobile and tactical line-of-sight communications as well as civilian and military air traffic control operations. The YAESU VXA-100 is another tool that provides communication capability on the international Aircraft Communication Band. Other equipments included in the fly-

away-kit are the MICOMs radios, the handheld radios such as the Motorola HT1000, XTS2500 and the Iridium satellite phones. This list is not exhaustive but it does provide an indication of the responsibilities of an ATIS technician.

After arriving on site, we conducted a quick site survey in order to determine what existing infrastructure such as cable runs or antennas could be used. The main effort was then focused on establishing communications as quickly as possible. The initial setup is the most time consuming activity, but because of our preparation, everything went according to plans. During the remainder of the exercise, the ATIS techs executed standard maintenance, performed regular radio checks and stayed on standby to react in case of any technical difficulties. The most challenging problem happened on the third day of the exercise when we were affected by a city wide power outage. There were still aircrafts in the air, and since the search could not be called off, communications had to be reestablished as soon as possible. This situation was not covered in our contingency planning for this exercise. A solution had to be found and implemented immediately. We were able to use 12-volt lead

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A Great Time to Be a Signaler

PTE M.J. MURRAY, RCD SIGNALS TROOP

EXERCISE TRILLIUM RESPONSE IS AN annual winter exercise held in Northern Ontario. The exercise was designed to increase operational readiness by providing a realistic and challenging scenario for the personnel of Joint Task Force Central (JTFC) in order to enhance their knowledge and skills in remote areas during winter months.

This year the exercise featured a Defense of Canada scenario, involving approximately 1500 Regular and Reserve force troops deployed in the vicinity of Cochrane, Fraserdale, Otter Rapids and Moosonee, Ontario. The exercise was held from 8 February 2013 with some troops not returning until 26 February 2013.

The Royal Canadian Dragoon's provided a three person Radio Rebroadcast (RRB) Detachment attached to 2 CMBG HQ & Signals Squadron. My detachment (det) would be given the chance to apply our job knowledge and training under austere winter conditions in order to provide a vital communications link during the exercise.

The role of an RRB Det is to rebroadcast the radio signals so outside stations can hear inside stations, extending the overall range. There were seven RRB Dets on this exercise, allowing the Immediate Response Unit (IRU) to communicate phenomenal distances.

As an RRB det, we were tasked, along with two other det's from other units to operate in a dismounted capacity in a remote region outside of Moosonee inaccessible by road.

In the week prior to deploying on exercise 2 CMBG HQ & Signals Squadron was a flurry of activity, seeing everyone preparing and testing their kit to deploy on exercise.

When we finally received the order to go, we mounted up in our vehicle packets and rolled in convoy formation to Cochrane Ontario, to begin the exercise. Once we arrived in location it became a busy time of rechecking kit and attending briefings about the up-coming operation. A mandatory rest period was required to prepare for the following early morning deployment. The dismounted RRB crews would be dropped into their respective locations via train, the Polar Bear Express. Each det carried approximately 1 ton of communications kit and 72 hours worth of food and water.

Once my det arrived at our designated placement, setting up our bivouac became the order of the day. Setting up our shelter was the priority, a 10 man tent. The sheer amount of kit and depth of the waist deep snow made this extremely tedious work, but after several hours of intensive labour we were ready begin conducting communications testing. After some troubleshooting issues we attained an unbroken VHF communications chain running from Cochrane to Moosonee Ontario, an approximate distance of 300 km. It required 7 RRB dets to maintain the link.

With the communication link established, routine maintenance of the communication equipment and daily camp routine became



the pattern of life. Re-supply of vital supplies was brought in by train every other day, and an airdrop of extra rations and a special treat of a chocolate Easter Bunny was made to the dismounted dets. During our time in the field we experienced the worst winter had to offer in the form of freezing sub-zero temperatures and a two-day white-out blizzard. This tested the limits of endurance of the kit and ourselves. However, we overcame all obstacles with minor setbacks by adapting to the adverse circumstances placed upon us.

After 8 days deployed in the field it was finally time to pack up and catch the train back to Cochrane. When we got back to Cochrane it was more mandatory rest in preparation for redeployment back to CFB Petawawa. Once back it was post-exercise drills and kit maintenance. We cleaned and hung our kit, turned in our weapons and looked forward to some much deserved time off with our families, and the next time we would deploy on exercise.

9 Wing Adventure Training Exercise

CAPT LAUREN BANKS, 9 WTISO

9 WING RECENTLY CONDUCTED AN Adventure Training Ex from 10–14 Sep 12 consisting of a week long camping trip to Gros Morne National Park. The seven-person team consisted of 5 members of the 9 WTIS Section, four of which are members of the C&E Branch including the IC (Sgt Logan Bennett, ATIS Tech) and 2IC (Capt Lauren Banks, CELE(Air)). In addition to a variety of activities including hiking and sea kayaking, the team completed the 16km trek to the summit of Gros Morne Mountain in just over 8 hours and their success was displayed as the 9 Wing Photo of the Week.



Clockwise from left: Capt Lauren Banks (CELE(Air)), 2Lt Elisabeth Chartier-Plante (CELE(Air)), Sgt Logan Bennett (ATIS), MCpl Phillip Kavanagh, Pte Greg Denyes (ATIS), LS Monique Lane, and Sgt Sylvia Leavitt complete the 806m climb to the summit of Gros Morne Mountain during the 9 Wing Adventure Training exercise that took place from 10-14 Sep 12.

CF C&E AND NATO AWACS

END OF AN ERA



LCOL P.J. MACKENZIE
CO CC-NAEWF (Technical Element)

NATO E-3A AWACS

IN THE SUMMER OF 2011 A LOW PROFILE ARTICLE IN THE PRESS ANNOUNCED THAT THE CANADIAN representative had advised his counterparts at NATO HQ that Canada would withdraw from the NATO Airborne Warning and Control System (AWACS) program. CF members posted to positions supporting NATO AWACS, in fact throughout the Royal Canadian Air Force, initially believed this news was incorrectly reported, that it was a misunderstanding and that the media meant to convey that Canada would cease participating in a different but related program, the fledgling Air Ground Surveillance (AGS) program based on a UAV (Unoccupied Aeronautical Vehicle) platform intended to be stationed in Sigonella Italy. After several weeks the Canadian representative on the NATO Board of Directors (BOD) made the same declaration and it became clear that, indeed, it was the Canadian government's intent to withdraw from the NATO AWACS program. The announcement

E3A Flight Deck



to withdraw from NATO AWACS signaled the beginning of the end of 30 years of CF participation in a unique, prestigious and high profile Alliance capability. The majority of the CF personnel and their families were initially saddened when the intent was confirmed, but dutifully accepted the inevitable and continued their mission with the same professionalism that has earned the CF and Canada its tremendous reputation as a strong and reliable partner of the NATO Alliance. All those who have participated in the NATO AWACS program should reflect upon their service with tremendous pride and a fully justified sense of accomplishment.

NATO AWACS

The NATO Airborne Early Warning and Control Force (AEW&CF) was established in 1980 following studies, conducted in the 1970s, from which NATO military leadership determined that an airborne early warning system would markedly improve the Alliance's air defense posture. Two main air bases, referred to as 'components',

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were established: the E-3D Component in Waddington, U.K. and the E-3A Component, near Geilenkirchen (GK), Germany. Air operations began in 1982 with the participation of twelve nations: Belgium, Canada, Denmark, Germany, Greece, Italy, Luxembourg, Norway, the Netherlands, Portugal, Turkey, and the United States. It reached full operational capability in 1988. Spain joined the E-3A Component in 1998, followed by Hungary in 2006, Poland in 2007, Romania in 2010 and the Czech Republic in 2011. At present there are 30 international crews from 17 of NATO's 28 member

nations flying 17 E-3A aircraft. There are four other locations from which the E3A Component conducts operations: three Forward Operating Bases (FOBs) in Trapani (Italy), Aktion (Greece), and Konya (Turkey), and a Forward Operating Location in Ørland (Norway). Other countries that fly E-3A aircraft include Japan, the United States, the United Kingdom, France, Israel and South Korea.

The E-3A's role is surveillance, warning and control. The multi-mode radar, mounted on a Boeing 707 airframe, is capable of detecting and distinguishing between moving targets and of detecting and tracking low-flying aircraft, as well as ships when in the maritime mode. The E-3A normally operates at an altitude of 30,000 feet and can survey airspace over a 400 km radius with over 312,000 km² in its field of detection. The aircraft can stay airborne without refueling for 10 hours, but the entire fleet is capable of air-to-air refueling. While the principal mission is air surveillance, it performs



Mission crew

complex missions across the spectrum of air battle management and tactical battle management activity such as support and control of allied aircraft engaged in offensive and defensive counter-air operations, close air support, battlefield air interdiction, combat search and rescue, reconnaissance, tactical air transport and air-to-air refueling. Using data link, the E-3A can also exchange critical information with sea- and ground-based commanders.

The Flight Crew is responsible for operating the aircraft and ensuring it reaches and maintains its orbit position, as well as for the safety of the aircraft and its occupants. The Flight Crew includes the Pilot, Co-pilot, Navigator and Flight Engineer.

The Mission Crew, headed by the Tactical Director, conducts the mission. It is comprised of 12 personnel in three sections: the Surveillance Team (Surveillance Controller, Surveillance Operators, and Passive Controller), the Weapons Team (Fighter Allocator, and two Weapons Controllers) and the Airborne Technicians (Communications Technician (CT), Radar Technician (RT), and a Systems Technician (ST)).

The on-board systems are extremely complex. It is incumbent upon the airborne technicians to initialize, monitor, and provide basic maintenance of the mission equipment. The CT initializes, manages and monitors the communications equipment. The ST performs a similar function for the computer systems, which are essentially the heart of the mission equipment. The RT, in close cooperation with the ST and Surveillance Controller, runs the mission radar to provide the best possible picture for the surveillance and weapons teams to execute their tasks. The E-3A Component's emblem, accordingly, prominently features three lightning bolts emanating from beneath the aircraft, meant to signify the rapid dissemination of information with 21st century communications technology.

Past Operations

From the mid-1980s to the early 1990s, the NATO E-3As flew regular air surveillance and control missions in support of global peace and security. From 1992 to 2004, NATO E-3As flew over 10,000 missions in the Balkans to help uphold United Nations' Resolutions relating to the former Yugoslavia, the most comprehensive operation in the Component's history. During the Gulf War in 1990-91, the NATO E-3As flew over 1100 missions, providing airborne surveillance along the Turkish-Iraqi border. The force deployed again to Turkey, in 1993, to provide airspace surveillance in support of sovereignty protection. Following the terrorist attacks on the U.S.A., NATO E-3As flew sorties for 8 months over America. NATO E-3As also flew many missions throughout Europe in support of security efforts for a variety of high-profile events including the G8, NATO and European Union Summits and major international sport competitions.



NATO E-3A Mid-Term Mission Monitor

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Recent Operations

Following several years of relative stability the E-3A Component was compelled to conduct an initiative to rationalize its establishment and in 2006 reduced its numbers to a level to what has become known as the Peacetime Establishment (PE). Ironically, after achieving the reduced force, the Component would be assigned to a succession of operations, eventually all simultaneously, and achieve an operational tempo unprecedented in its history. OPERATION ACTIVE ENDEAVOR transformed and extended several times from its origins supporting the United States, following the terrorist attacks on 9/11, to where it is relevant on a wider scope combating terrorism internationally, particularly to prevent the smuggling and proliferation of weapons of mass destruction including monitoring shipping in the Mediterranean. The NATO AWACS' commitment to fly missions in support of this effort is anticipated to continue until 2014. In December of 2010 a man in Tunisia set himself on fire and died in protest of his treatment by police. This gruesome protest ignited a series of rebellions across the Middle East in what has come to be known as the Arab Spring. Similar protests occurred in Libya, to which the government responded with deadly force. The UN responded with an arms embargo and declared a no-fly zone to protect the Libyans from airborne attacks from their own government's forces. This operation, entitled OPERATION UNIFIED PROTECTOR, began in March of 2011, and NATO AWACS contributed by providing support for Command, Control and Communication for air assets as well as ships on the Mediterranean. Flying from the FOB in Trapani, the NATO E-3As flew 247 missions before the operation ended in October of 2011. In January of 2011, the E3A Component began flying missions in Afghanistan (OPERATION AFGHANISTAN ASSIST) to support the International Security Assistance Force (ISAF). The missions are ongoing at this moment and based out of the German air base at Mazar-e Sharif, Afghanistan.

C&E Personnel

The primary role of the AWACS is warning and control, which is enabled through the collection, processing and dissemination of information. A misconception among many Component members, media and, consequently, the public, is that getting the aircraft airborne and in theatre is the primary task. True, the aircraft is a high value asset, and it is a complex process to get it airborne safely in the Area of Operations (AOO). But, the aircraft is the platform to deliver the systems to the theatre in order to collect, process and disseminate information. It is in this capacity that the experts in the field of communications and electronics (C&E) contribute so critically, without glitz and glamour, to the primary role of the NATO AWACS. The Canadian Contingent (abbreviated CC-NAEWF), commanded by an Air Combat Systems Officer (ACSO) Colonel, comprises about 109 positions, making it the third largest contingent on the Component, behind the Germans and the Americans. CC-NAEWF is comprised of two elements, the Operations Element, and the Technical Element. The Operations Element consists primarily of the flight crews and the mission crews; the Commanding Officer is a Pilot - LCol. The Technical Element is comprised mainly of Engineers, Logisticians and Technicians; the Commanding Officer of the Technical Element is a CELE-Air LCol.

Sgt Trevor Porteous is an Aerospace Telecommunications and Information Systems (ATIS) Technician with CC-NAEWF. His official title is Radar Technician (RT) on the AWACS, and he is assigned to Number 2 Squadron. His duties and enthusiasm are best conveyed in his own words. "As the radar tech on the AWACS" describes Sgt Porteous, "I am responsible for the two primary

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Left to right: LCol Paul J. MacKenzie (CO), Sgt Trevor Porteous, Capt Calogero Cumbo, MWO Darryl Corbett, WO Will Sarty, MWO Jean Gauthier, Maj Steeve Lavoie, MWO Ruel Walker, Maj Ron Young. (Missing: Sgt Brennan and MCpl Vogelaar)



Maj Steeve Lavoie and MCpl Sean Vogelaar at the DOB



MCpl Jason Belanger



LCol Paul J. MacKenzie (CO) bids farewell to Capt Cologero Cumbo who leaves CC-NAEWF to ATESS, 8 Wing Trenton.

sensors on the jet, the Radar & IFF (Identification Friend or Foe). It is my responsibility to pre-flight the sensors before every flight [and] once in flight to load the software and bring up the system and transmitters. After I have completed my check-out procedures and determined the best radar frequency I coordinate with the Tactical Director & Surveillance Controller to hand over the sensors to his control. During the mission, coordination is ongoing to provide the best picture for the specific mission requirements. My biggest role is to troubleshoot and repair any faults that may occur to the transmitters, receivers or radar computer. At the end of every flight the RT does a detailed testing and system checkout to troubleshoot and repair any faults that were not able to be repaired during the 'on-station' time... situational awareness and crew coordination are vital to overall mission success. I have supported operations in Libya, for OP UNIFIED PROTECTOR, and in Afghanistan, as part of ISAF. I have also completed numerous exercises in Turkey, the Mediterranean and all over Europe. In 1 year with my operational Squadron I have flown close to 80 missions and have over 400 flying hours."

Major Steeve Lavoie is a Communications and Electronics Engineer (CELE-Air) Officer at the Component. While working at the Main Operating Base (MOB), he is a Staff Officer in charge of the management of the network operations section within the Communications and Information Systems (CIS) Squadron. In this capacity he manages the CIS infrastructure including wiring, the public address system, the various telephone switches, incoming and outgoing circuits, as well as the database and applications section. He also deploys as the CISO to the Deployed Operations Base (DOB), FOBs or FOL. In this capacity, he ensures all CIS and IT systems are operational in support of the mission. A major role while deployed is to liaise between the Detachment Commander and/or the Force Element Commander, the MOB and/or host nation. He and his team do whatever it takes to maintain the ground-based mission support systems, computer networks,

telephone systems, and all the CIS in between. Steeve has deployed on several occasions in support of OAA and OUP.

Maj Ron Young (CELE-Air) is a Project Leader within the Mission Systems Engineering Group (MSEG) that is charged to ensure the mission programs run smoothly and that improvements to the software are engineered and that changes are implemented in a controlled process with strict quality control and assurance measures. Ron has also deployed as CISO at FOB Trapani in support of OUP. Capt Cumbo's (CELE-Air) official title was Analyst/Programmer, a software engineer, but in reality he fulfilled the role of a project manager for mission software development projects. WO Will Sarty (ATIS Tech) leads emission security and transmission security control activity. He ensures all installations classified higher than Restricted on the MOB, FOBs and FOL comply with current COMSEC and INFOSEC directives and regulations. Another important role is to educate the Division Security Officers (DSO) and the IT Focal Points (ITFP) on proper procedures for protecting the

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MCpl Belanger with his Flight and Mission Crew at the FOB in Konya.



AWACS mid-air refueling

End of an Era — Continued from page 27

integrity of the information and the processing systems. He deployed on numerous Technical Staff Visits (TSVs) to Aktion, Trapani and Konya.

MCpl Jason Belanger (ATIS Tech) as an ST maintains and monitors all the computer systems in flight, checking for any problems. In April of 2012 he departed for his third deployment to Afghanistan for OAA. MCpl Sean Vogelaar (ATIS Tech) is a Team Leader at the Consolidated Service Desk (CSD) at the MOB. He has deployed in support of OAA and provided technical support on all CIS. As an aside, a primary concern for operations is the quality of the CHAT system. The CHAT is not a system of record, but an ad hoc assembly upon which the operators have become quite dependent. While flying on a 14 hour mission to fault find a problem with the CHAT, MCpl Vogelaar assisted the CT rebuild cables and identified a particular part of the orbit where there was weak satellite reception. Responsible for CIS account creations, maintenance of all the electronics and IT equipment in operations/maintenance buildings, the ADP technician works a minimum of 12 hours per day, 7 days a week and is on call 24 hours a day for the duration of the tour. Often the only technician in Mazar-e Sharif, his duties were quite wide and varied. On crew rotations the technician became a shuttle driver and baggage handler, loading off and on equipment at the aircraft, to and from various locations on the DOB, whatever it takes to keep the mission moving. MCpl Vogelaar also worked in the Mission Media cell for two years where he assembled the communications plans and mission planning data (dynamic and static) onto the media hard drives and PCMCIA cards for the mission kits that are loaded onto the aircraft before each mission. Following the mission, he and his team would remove all the mission data and perform data reduction; some of this data would be used for mission software maintenance and/or fault-finding.

For my own part I wear two hats: I am the CO of the CC-NAEWF Technical Element and the Component A6. In my capacity as A6, I manage CIS support to operations, CIS plans and requirements, budget and finance, IT service management and instructions, asset and license management, contracts, and IT training. I'm sure I speak for all of us when I say that working

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The Information Systems Security Officer (ISSO) Role at 17 Wing

MCPL SERGE GUILLAUME, 17 WING – WTISS, ISSO

NEW POSTING, NEW RESPONSIBILITY! Since my arrival at 17 Wing Winnipeg in August 2012, I have worked with MCpl Babiak to fill the Wing Information Systems Security Officer position. Our duties involve planning, organization, supervision and monitoring of the Wing's information systems. To that end, we receive various reports from Ottawa on IT alerts and breaches committed at the local level, i.e., for all units supported by 17 Wing Winnipeg. And believe me, the list of supported units is far from short! The alerts most often observed are use of unauthorized programs on the Defence Internal Network

that most users might feel they are being held back somewhat when the time comes to install a program needed for their day-to-day work. But there is no need to fret, for on 17 Wing, like all the other CF wings, we can always count on excellent support from the Wing Telecommunications and Information Systems Squadron (WTISS) technicians. In a way, the ISSO position serves as a communication bridge between users and technicians, as the breaches and alerts force us to bring the two together.



user education that we achieve greater cooperation, assistance and prevention—each user becomes like an assistant working at our side.

Another ISSO area of responsibility involves ensuring compliance with Wing IT security measures. That entails a number of duties, including mastering the procedures for renewal of certifications and accreditations. Those procedures must be completed before expiry on the systems or premises to which they apply. This is a critical task, for it can sometimes affect the viability of IT systems in an entire building. As an example, let us suppose that Headquarters (HQ) is using standard computers to work on a classified network since it is designated an Emissions Security (EMSEC) zone. If HQ certification were to lapse before the renewal process had been carried out, all the computers in the section would have to be replaced with TEMPEST (Telecommunications Electronics Material Protected from Emanating Spurious Transmissions) systems. This certification and accreditation oversight would lead to exorbitant replacement costs. As well, the ISSO needs to work with IT network managers to have system disaster recovery plans in place designed to minimize system downtime.

Being an ISSO means working as a facilitator and an educator. In the facilitator role, we serve as the intermediary between users and technicians in resolving IT-related problems. And the educator component involves briefing technicians on new security procedures and policies in effect. We also advise users on procedures to avoid becoming the target of an IT threat. Never hesitate to contact your local ISSO when you have questions about IT security. We will do all we can to find solutions that will continuously upgrade security without making it overly restrictive.



MCpl Guillaume deploys the heavy weapons to protect our IT systems.

(DIN) and Web attacks coming from poorly protected sites visited by our users.

Receiving daily, weekly and monthly reports means that much of my time is spent communicating with users to determine the causes that have given rise to alerts. Most of the time, users are not at all aware that they have committed breaches. Unfamiliarity with rules and policies and failure to contact resource persons before installing things on National Defence computers lead to these alerts. As an IT technician, I can understand

When a virus alert comes in, I have to do the necessary administration to notify the user that his or her computer will be immediately disconnected from our network and a technician will perform a restore on the machine. When the computer is again compliant, my next job is to notify the Canadian Forces Network Operations Centre (CFNOC) and the national ISSO that the situation has been resolved and we have taken corrective action to prevent recurrence of such incidents. Most often, it is through

Communicating Across the North: Alaskan NORAD Region Perspective

CAPT K. HJALMARSON, ACOMS, ALASKAN NORAD REGION

BEING IN THE USAF (OR IN MY CASE, the Canadian Forces) allows people to see some pretty incredible parts of the world—places where no average person could possibly ever experience with their work, or even on a weekend vacation—to the last frontier.

My name is Captain Kris Hjalmarson, and I am a Royal Canadian Air Force (RCAF) Officer posted to Joint Base Elmendorf-Richardson (JBER), Alaska. I work with the 611th Air Communications Squadron (ACOMS) in communications support of the Alaskan NORAD Region (ANR) mission. In an organization of about 25 USAF personnel and 15 DoD civilians, it is certainly a unique and wonderful experience being the sole Canadian in an entirely American organization. I am fully integrated within the Sqn and am embraced to focus on our common NORAD mission. My current focal point is to oversee and monitor mid-to-long-term project upgrades of ANR radars, as well as to champion movements on how to efficiently and effectively distribute radar and communications feeds creating maximum redundancy across the north. This endeavor (with anticipation) will further link Canadian NORAD Region (CANR) and ANR together, creating an even stronger communications link and partnership across the north.

Note: There are currently over 35 Canadian Forces personnel working with the Canadian Detachment at JBER near Anchorage, Alaska in support of the Alaskan NORAD Region mission.

One incredible aspect of my job is the opportunity to travel to some of the remote radar locations across Alaska. Currently, I have been fortunate enough to travel in a USAF C-12 to Sparrevohn, Tatalina, and Barter Island, AK (see map). At Barter Island in the Beaufort sea, I had the wonderful experience of seeing the first constructed Distant Early Warning Line (DEW) radar station. It is still holding strong to this day, and is manned

by two very diversely talented and knowledgeable civilians from ARCTEC, the contracted company that maintains the bulk of ANR radars and radar sites. At Barter Island every year, the Inupiat natives of the area (town: Kaktovik) catch whales of the area, and discard the unwanted parts of the hunt on the Island, attracting numerous polar bear every year, like clockwork. On my trip in September 2012, I saw nine Polar bear on my visit, having missed the 70 that were there simultaneously only one week before. Communications infrastructure certainly takes you to some very interesting areas of the world.

Note: Barter Island was a major trade center (circa 1900) for the Inupiat people and was especially important as a bartering place for Inupiat from Alaska and Inuit from Canada, hence its name.

The North is a wonderful and majestic place. The ground is unscathed of human



presence—flying above much of Alaska, I see no fields, roads, or power lines – no signs of smoke or pollution. This peaceful, rugged expanse is quite honestly one of the last frontiers of America.

I have experienced the Arctic in places such as Thule, Greenland, as well as in Canada at Fort MacPherson, Northwest Territories, and finally CFS Alert, Nunavut having spent 3 months there in 2006 as an “on-the-job training” Officer Cadet. Now,



having a slightly broader perspective of the Arctic (albeit largely from a military perspective), I have come to cultivate a fondness to the North American Arctic. The Arctic is the only spot I know of where you can stop your car, turn off the engine, get out, and experience absolute silence. However, as the north is experiencing more evident change from each year to the next, we must pause for a moment and consider something... There is the potential for this eerie silence, and unscathed landscape to be something that may not fully exist within the lifetime of our next generation. I do genuinely feel that the North is certainly something worth protecting. In order to keep up with this changing environment I believe it is important that Canadians, Americans, and members of our armed forces stay ahead of the curve, and continue to invest our thoughts, our ideas, and our continued presence in the North.

Working with the United States in the Arctic is a very unique and gratifying experience. I find both Canada and the US take great pride in the North, and we both experience and appreciate this land in similar ways. As the distance narrows between the lines of longitude towards the north pole, the arctic becomes ever increasingly a smaller and smaller place; sets of values will need to be shared

and many countries will need to cooperate and embrace this area together. I believe Canada and the US have been, and continue to be pioneers in leading the way, sharing partnered responsibility for protection of our territories through the NORAD mission. It is the NORAD mission that will keep this last brilliant wilderness glorious and free while we move north to the future.

Software Development for National Defence: The Agile Approach

MAJ SERGE SARDA

www.agilemanifesto.org

THE DEVELOPMENT OF SOFTWARE IS NO part of the Canadian Forces' mission. But the achievement of the CF's varied missions requires large quantities of information on any number of topics—personnel, training, and operations to name only a few—and in today's environment that requires specialized software. Software that fails can endanger mission success; software that costs too much diverts resources from other needs, and is therefore also a danger to mission success.

- ◆ CFTPO, the CF-wide tasking system (3,600 users);
- ◆ CFRIS, the CF Range Information system (1,500 users); and
- ◆ ESTB, the new CF Establishment system (over 100 users, and growing rapidly)
- ◆ MEMS, Military Employment Management System

The ASST Agile Approach to software development is more of a mindset and a set of guidelines than a rigid formula. It bears a family resemblance to the methods that

requirement analysis and project planning. Years—in fact, usually do—pass in documenting project requirements before any usable software is delivered to the user community. Every project activity and every delivered product is planned in advance; this approach dates to the 1960s, and is known in industry as the “Waterfall” method, as everything flows downhill from the initial documentation. While project planning sounds like a good idea, experience has shown that Waterfall analysis process is very weak

at dealing with rapidly changing requirements. The CF in particular has had a number of negative and expensive experiences with Waterfall projects.

These experiences have led to an understandable desire to avoid software development altogether. This implies the use of existing or “Commercial Off-the-Shelf Software,” or (there is always an acronym) “COTS.” The idea is that National Defence should purchase what it needs in the commercial marketplace, and this approach works well for general purpose office software. Problems arise with “Enterprise Resource Planning” (ERP) software designed to manage databases related to key institutional

The reality of COTS Versus ASST (Agile)

Factors	COTS	COTS/customised	ASST Agile/In House
Impact on the Organisation	Major Organisational change could take time and could be costly Data flow fragmentation	Some change required	Build on the existing processes, minimum impact
Time to Field	Should be fast but based on previous implementations of SAP and PeopleSoft it usually takes 10 years	Customisation will increase the implementation period by a big factor	Can deliver patch or new products on a frequent basis
Maintenance/ upgrades	No control over the direction of the development. Future releases may cause reintegration and be expensive	Customisation will make the upgrades challenging, costly and ultimately unachievable	CF keep the control and set the priorities of the development
Data integration	Data integration across vendor platforms is not successful and nearly impossible to maintain	Data integration across vendor platforms is not successful	Data exchange and data sharing is the essence of it
Functions integration	New requirements not covered by the COTS functionality will be isolated (stove piping)	Costly and slow or not possible	New requirements are integrated and benefit from up to 80 % completion starting point*
Risk	Market /Political factors Commits organization to whatever the vendor decides is the future Open to new version licence costs as dictated by the vendor	Market /Political factors Increasing the gap between commercial and the organisation Must re-engineer customizations with each COTS release (was not possible for HRMS)	Loss of team knowledge (Control by DND organisation) Requires strong technical leadership
Cost	Not just acquisition cost and not always lower cost. Example MASIS (Plan 70 M current : 450M)	COTS are more expensive when military requirements are not the industry standard	Based on experience, very low

The aim of any IT project in the Canadian Forces must be to provide useful information to leadership. The ASST Agile Approach to software development has proven effective at keeping the focus upon the delivery of useful information to CF leadership. The Army Software Support Team's software suite has almost 30,000 users throughout the CF; approximately 7000 personnel use ASST applications on any given day. ASST's applications include:

- ◆ MonitorMass/REO, the military-specific CF personnel system (27,000 users);

the most innovative parts of the software industry use to create practical web and smart-phone applications (for instance, for the iPhone). The ASST Agile Approach begins with military needs, and places a minimum of bureaucracy between leadership's needs and programming staff. It places a premium on flexibility and responsiveness, and as a consequence upon the anticipation of future needs. It embraces and plans for change, especially unexpected change.

Traditional software design methods, by contrast, place great emphasis upon

processes. There are fundamental differences—of aim, of culture, of legal environment, among others—between the Canadian Forces and the business corporations for which COTS ERP packages are designed. It is in the nature of commercial software that it does not meet requirements that are specific to the military. Attempts to customize or modify COTS packages have proven to be expensive and ultimately unsatisfactory in outcome; they have the further disadvantage of creating versions of

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Full Motion Video: Evolving the Battlespace

GRACIOUSLY PROVIDED BY CAPT D.J. LEE,
DEFENCE FORCE SCHOOL OF SIGNALS,
AUSTRALIA

TECHNICIAN SYSTEMS SUPERVISOR, SPECIAL OPERATIONS TASK GROUP, ROTATION XV, ROYAL AUSTRALIAN SIGNAL CORPS

THE BATTLESPACE IS CHANGING. OUT, with the map pinned to the table, drawing on post-it notes to battle track the Force Element. In, with the latest flat screen TV providing Full Motion Video (FMV), utilising multiple SATCOM and GPS emitters on target to provide real-time updates to the Special Operations Command and Control Element (SOCCE). FMV is enhancing the ADF's ability to conduct Special Operations by providing real time footage of a target area anywhere across the globe. This capability is provided by a variety of manned and unmanned platforms, such as Unmanned Aerial Vehicles (UAV). FMV provides commanders at all levels enhanced situational awareness and understanding of the battlespace, which informs planning and speeds decision making.

FMV comprises of real time or near real time video feeds transmitted from camera pods onboard a platform through direct line of sight (LOS) or beyond line of sight satellite to the receiver. FMV provides commanders a number of capabilities including, but not limited to, Low Threat Surveillance, Broad Area Reconnaissance, High Resolution Spot imagery, Treaty Verification, Intelligence Preparation of the Battlefield, assist in positive target identification, Force Protection and Battle Damage Assessment.

When introduced, FMV was only readily available to the controlling station, nearby coalition units and Joint Terminal Attack Controllers (JTAC) in the field. As the proliferation and use of UAV increased so did the requirement to access this capability, and from greater range. The most common method of acquiring FMV from a platform is through a LOS receiver. Each receiver provides a single terminal with the ability to receive FMV feeds from the platform. With multiple Force Elements utilising FMV-capable platforms in the same battlespace, the single-feed provided by early generation receiver was not sufficient to access the full range of FMV observing the AO.

When first introduced FMV was transmitted by an analogue signal. The main benefits of using an analogue signal are simplicity of transmitter and receiver design, and low cost. The major drawback



same space as an analogue signal. The transfer rate can be as high as 8–10 Megabits per second, which provides better clarity and in turn a distortion free and clearer FMV feed.

The evolution from analogue to digital FMV has begun in the ADF, especially within the Special Operations Task Group (SOTG). SOTG utilises FMV extensively during all phases from pre-mission ISR, providing Situational Awareness and Indications and Warnings during the operation, through to conducting Battle Damage Assessment, with assets controlled by both field and SOCCE-based JTAC. In order to fulfill these FMV requirements SOTG utilises multiple inputs to enable true global connectivity. The digital upgrade to the FMV receiver also enabled both the SOCCE and the FE in the

field to receive clearer digital FMV via LOS at much greater range, important for mobile FE who are affected by terrain and distance between the platform and the receiver.

is that analogue signals are constrained by low bandwidth and signal degradation with increasing of distance between transmitter and receiver. Furthermore the analogue signal is unencoded, leaving the FMV feed open to intercept by the enemy. Digital platforms were introduced to improve the performance and utility of FMV by providing enhanced picture quality at a greater range.

A significant issue faced by the SOTG with the use of FMV is compatibility. The ADF has limited organic UAV capability and so must rely on its Coalition partners for access to FMV platforms. Due to the multitude of Coalition systems utilised to display FMV feeds, and the significant distance that the feeds travel (often via a combination of satellite, optical fibre and LOS) to reach the Australian SOCCE, the Australian technicians must have a good understanding of Coalition network topology and conduct frequent liaison with Coalition FMV Platform and Signals detachments. By patching fibre directly to approved areas within the SOTG, separation of systems is assured, and access for compartmented mission sets is restricted. The higher risk associated with

Digital transmission works by encoding the video signal into a binary code and transmitting it to the far end through LOS or satellite. A receiver (such as an Amino set-top-box or a laptop) takes the encoded video and reassembles it into the original video stream. A main advantage of a digital signal is that with only two possible states (1 or 0) the effects of distortion can be largely mitigated. The addition of redundant data (Forward Error Correction) allows a large percent of errors that do occur to be corrected at the receiving station. Digital feeds allow more information to be compressed into the

Continued on page 33

Full Motion Video — Continued from page 32

SOTG missions means that fault-free FMV is required throughout each mission; the loss of FMV can result in mission failure.

Due to the significant requirement for clear and reliable FMV by the SOTG, an FMV network was developed. In conjunction with the SOTG Information Systems Cell all incoming FMV feeds were injected into a dedicated switch from the numerous, varied originating systems, then distributed through a separate dedicated switch into the FMV network. Separate fibre was run to all key areas which enabled easy identification of the FMV fibre and separation between Australian and Coalition services. By utilising SOTG Technicians to establish and manage the network a high level of redundancy and reliability could be built into the system, ensuring that issues experienced by other

nodes such as localised weather preventing connectivity to particular platforms, or power issues, could be negated.

The introduction of the FMV network has allowed all FMV feeds to be viewed within a single web browser. This enables the SOCCE to have all feeds on screen and detach whichever FMV feed they require for viewing, significantly reducing the burden on the end user of accessing numerous Coalition systems with associated network and permissions issues. Once the feed is no longer required the SOCCE staff can close the detached video and continue viewing the web browser. The dedicated FMV network is administered by the SOTG Signal Troop who also conducts training for key SOCCE staff. The network has significantly improved the reliability, responsiveness and access of SOTG

to the numerous FMV platforms, which has provided a corresponding improvement in Situational Awareness and control.

FMV has greatly enhanced the way that the ADF conducts Special Operations. The advancement of technology has allowed the FMV clarity to be greatly improved through digital transmission, and the distance a feed can be received from the transmitting platform has significantly improved. Within the SOTG FMV has become more reliable through cooperation with Coalition partners to better distribute feeds and influence the future of this capability across the battlespace. FMV continues to enable SOTG operations to be developed, planned and executed in uncertain environments and giving operators the best chance of coming home safe after a successful mission.

The Agile Approach — Continued from page 31

the original software that are unsupported by the commercial vendor and therefore impossible to upgrade.

In stark contrast to the Waterfall and COTS methods, the ASST Agile Approach to software development has proven successful at delivering software to meet requirements that are a) specifically military and b) rapidly changing.

The frustrations and failures of traditional methods of software development have not been limited to DND. Early in this century, a group of working programmers and developers published a statement that called for a new approach to software development, and they called it the Agile. The Agile method lays down the following four preferences:

- ◆ Individuals and interactions over processes and tools;
- ◆ Working software over comprehensive documentation;
- ◆ Customer collaboration over contract negotiation; and
- ◆ Responding to change over following a plan.

This is exactly the opposite set of preferences to those of the formal, contract-driven, documentation-heavy processes associated with traditional Waterfall or COTS-style projects. We had something of a feeling of validation upon first discovering the Agile: it put into precise words the priorities that we had developed in-house as a means of doing an important job with limited resources.

We have developed a number of rules-of-

thumb as a guide to ASST Agile development practices in the specific circumstances of the CF:

1. Focus on the aim: The project aim should be concisely stated and widely understood, even as precise details change and grow.

2. Leadership Control: Put real software in front of users regularly, in iterations of weeks or months. Users can then collaborate directly with developers, and leadership can base project direction on experience with real software, and not on PowerPoint presentations loaded with promises.

3. Plan to Change: Structure a project into concrete capability increments. Each iteration should add capabilities in planned increments. The near-term additions will be distinct and tangible, the longer term more conceptual and also more flexible, as the project responds to feedback from the military community.

4. Keep Military Control: We use military personnel as “military analysts”, in direct and daily contact with civilian developers. We have found that a ratio of military personnel (mostly NCMs) to civilian developers of approximately four to one works well.

It would be too neat to suggest that our four rules-of-thumb correspond exactly to the four points of the Agile. But our practices implement, in the context of the CF, the spirit of it: they consistently prefer user interaction, direct face-to-face collaboration, and working software over documentation and bureaucratic processes.

We know two things, about the future of the Canadian Forces post-Afghanistan: we know that there will be rapid and wrenching change; and we know that budgets will be tight. To reiterate the obvious, every dollar spent on software or IT projects will be a dollar not available for equipment or training.

We hear today a great deal about transformation, and the word is easy to throw around. The CF’s challenges in the near and medium term will require that leadership have ready and rapid access to accurate information about CF activities, personnel, training and numerous related topics. We have found, and over 30,000 users find, that ASST Agile methods can provide that information effectively, accurately and cost-effectively. ASST agile development is not a concept anymore; it is a proven methodology delivering huge capability in various CF domains, and doing so with very limited resources.

The implementation of ASST Agile software is not a case of budgetary constraints forcing the CF to accept some second-best compromise: ASST Agile methods have shown that in real-world, military use they deliver better and more accurate information more quickly and far more economically than any conventional software procurement method. Accurate and timely information must be, as we began by saying, the aim of any CF software project. The selection and maintenance of that one aim would really be transformational.

IN DEFENCE OF THE STOVEPIPE

A Cynic's View on Network Convergence

MAJ CORNELL, DLCS PM

ADVOCATING IN FAVOUR OF A stovepipe solution for just about any problem is guaranteed to be controversial. Integration, interoperability, or convergence are essential parts of just about any technological endeavour being undertaken by the Government of Canada, including the Department of National Defence. In the past year, Shared Service Canada was established to combine all unclassified government networks in search of the much sought, but difficult to attain, “efficiency.” In DND, the Consolidated Secret Network Infrastructure (CSNI) and Land Command Support System (LCSS) are undergoing “convergence” to streamline communication through well-defined gateways, and to improve application sharing so that a single instance of either network will satisfy users requiring services from both. All of these efforts are focused on achieving more efficiency in the provisioning of services to users by reducing physical, support, training or sustainment costs.

Stovepipes have all sorts of problems. By definition, they provide a solution that cannot be easily extended or modified to meet other needs. They often use proprietary technology that makes re-use or enhancement difficult, and constrain options for sustainment or improvement to a handful of vendors, driving up costs. However, stovepipes are not entirely without advantages.

Stovepipes deliver a very specific solution to a very specific problem. Since they don't try to be “all things to all people,” they can optimize their solution to meet a single need. This is principally why they are often poor at meeting any expanded scope. Stovepipes are usually controlled end-to-end by a single authority. This simplifies their governance, since achieving consensus is not a requirement. This allows them to be updated

rapidly since they have few interdependencies with other systems. Finally, stovepipes are easy. If they weren't, we wouldn't have some many. Delivering a solution that has numerous interdependencies requires significant coordination, and can often result in a sub-standard solution for any individual component due to compromises with other system elements. Stovepipes don't have to compromise or wait for other system elements to emerge, they can deliver a fully

operational commander who is often quite willing to accept risk on his network in order to better achieve operational effects. Governance of the network is streamlined because there is little to no requirement to consult with others when this decision needs to be made. Applications, operating systems, and hardware can all be upgraded or replaced in isolation because the impacts on strictly contained. By contrast, when networks are more tightly coupled, either through gateways or guards, the posture on one side can be heavily influenced by the other. For instance, use of different messaging standards for voice over IP, e-mail or chat can make interoperability between two networks a challenge. When the governance or funding determining the direction on either side is decoupled from its partner, evolving the converged system can become impossible. When an application is rolled-out on one side, who funds the testing and roll-out on the other?

Achieving a converged/interoperable/integrated network is a worthwhile

endeavour. It removes a significant dissatisfier for the user who is tired of having multiple machines, accessing multiple networks, to do a simple task. Users want simplicity, and network convergence provides one path for its achievement, while also helping to fulfil the larger mantra of resource efficiency. However, network convergence has drawbacks in terms of flexibility, oversight, and evolution. It will require compromise in new areas that will engender new concerns from the user. Technological interoperability won't be the problem. Achieving a sustained, shared vision that is adequately resourced on both sides will be.

NOTE: The author has taken a deliberately contrarian view of this topic. His true opinion on the matter is much more nuanced, and less well-informed.

Stovepipes deliver a very specific solution to a very specific problem. Since they don't try to be “all things to all people,” they can optimize their solution to meet a single need.

self-contained solution from the beginning.

Stovepipe is an overly broad term since it can be applied at a number of levels. The Land Command Support System (LCSS) is an Army “stovepipe.” It has evolved, mostly in isolation, over the past decade to meet the Army's emerging C4ISR needs in theatre. The focus has been on internal Army requirements for planning, execution, and visualization. Despite interaction with other classified networks, it has diverged in terms of operating systems, security solutions, and supported applications. CSNI-LCSS convergence is a concerted technical effort to try and harmonize the solutions that arose on both networks over their lifetimes.

As an Army network, the LCSS benefits from a specific operational focus. Operational authority resides with an

Space Junk, Satellites, and Surveillance of Space: DND's First Operational Satellite —

SAPPHIRE

JES ELLACOTT, IM GP COMMS

SINCE THE LAUNCH OF SPUTNIK IN 1957, humanity has been rather obsessed with sending thousands of objects into space and hasn't put much thought into how to get them back down again. Old, worn-out satellites, defunct spacecraft, and the corpses of rockets litter Earth's orbit.

In order to keep an eye on these potentially costly projectiles, the Department of National Defence (DND) will be contributing to the US Space Surveillance Network (SSN) with the first DND operational satellite — SAPPHIRE.

"Space is critically important to Canadians.

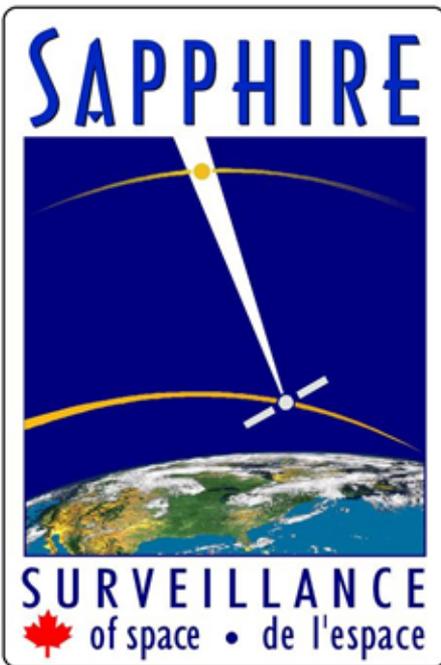
Everything from our banking system to our TV to our Internet connections relies on space," says Eric Charbonneau, Project Manager for the Surveillance of Space project.

"Space is also becoming very dirty. It's very congested," he says.

SAPPHIRE will be one of approximately 25 sensors around the world that contribute to the SSN. This contribution gives Canada access to a considerable amount of additional data and products collected and produced by the network.

"No country, other than the US, has enough assets to do this mission. Our project is \$96 million. The American space surveillance network is probably worth about \$22 billion. So our \$96 million contribution gives us access to the information that the \$22 billion network is collecting. So from my point of view that's a very good deal for Canadian taxpayers," says Mr. Charbonneau.

In the world of satellites, SAPPHIRE itself is simple and relatively small. In very (very) simple terms, it's a telescope with a digital camera. This kind of simplicity keeps the satellite reliable, says Mr. Farid Aziz, system engineer for the project.



According to NASA, the average impact speed of this debris with another object in space would be approximately 10 km/s. To add an additional dimension to the issue, this space junk happens to be fraternizing with some very expensive and very important space assets such as the International Space Station, RADARSAT-1 and 2, and other international assets.

Maj Paul Maskell, Operational Requirements Manager for Surveillance of Space, explains that SAPPHIRE's job is to take pictures of where objects are in space at any given time. This is a tricky job due to the fact that the orbits of these objects are constantly changing.

SAPPHIRE produces what is referred to as "angles-only" observations of where an object was at a particular time along its orbit. That information is then fused with data from other sensors and radar to create a clearer picture of where objects are in space and where they are going (i.e. their updated orbits).

The SSN is tracking over 22,000 objects, with this number increasing regularly. Once it's launched, SAPPHIRE could be tasked to monitor at least 360 objects in a 24-hour period, says Mr. Charbonneau.

"Although SAPPHIRE is considered to be a small satellite, it will have a huge impact with respect to Canada's contribution to the SSN. It's going to be a real foot in the door for DND and Canada in the world of space surveillance," says Maj Maskell.

Support of SAREX — Continued from page 22

acid battery as a temporary solution which enabled us to continue to provide support to the mission. This power outage had a two-fold impact on our experience: it was an opportunity to troubleshoot under operational stressors and it resulted in the augmentation of our fly-away kit with a generator.

The lessons learned from this exercise led to the modification of our SAR fly-away kit,

which is always kept ready for deployment. This exercise was beneficial since it allowed us to see first hand what equipment was actually needed and what kind of scenarios may be encountered.

In conclusion, this exercise was a great learning experience in allowing us to interact with civilians, flying squadrons, allied nations and our fellow technicians from all these

entities. They all had different expectations of what the ATIS technician's areas of responsibilities are and good communication had proven to be the key for success in these scenarios. This exercise was an excellent opportunity to apply our skills in a simulated operational environment and I think every ATIS technician would benefit and gain valuable confidence in taking part in SAREX.

DND Space Tracking Sensors Achieve Important Milestone

JES ELLACOTT, IM GP COMMS

IM WIRED TO THE WEB, VOLUME 7, NUMBER 1. JANUARY-FEBRUARY 2012

DND HAS OFFICIALLY JOINED THE US in the space tracking business... or perhaps one should say rejoined.

Recently, DND's ground-based optical (GBO) sensors were formally certified as part of the US Space Surveillance Network (SSN), a collection of over 25 sensors distributed around the globe whose purpose is to track the more than 22,000 man-made objects in orbit around our planet. This certification followed an extensive trial period during which the sensors' performance, stability, and data quality were closely scrutinized, which allowed the GBO sensors to achieve full operational capability.

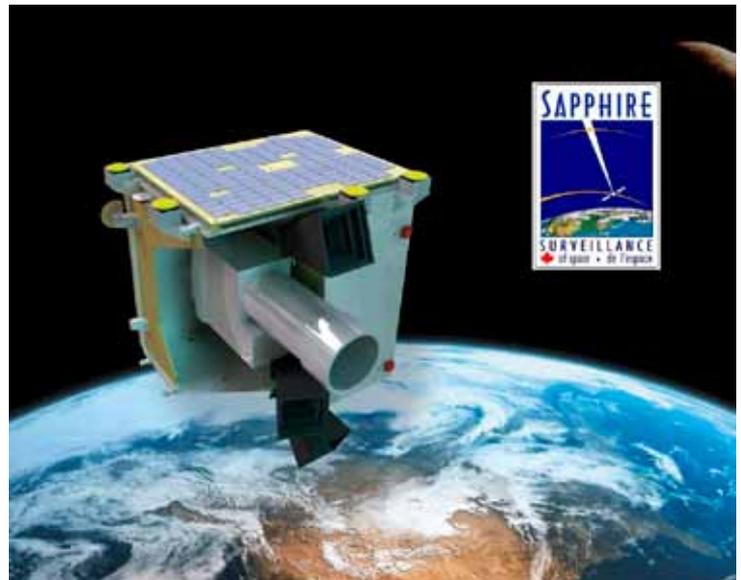
The GBO sensors are a system of two robotic telescopes—one located in Suffield, Alberta, and the other in Valcartier, Quebec. Their purpose is to track man-made objects in Earth's orbit—specifically, objects in “deep space” or at altitudes greater than 6,000 km above the Earth.

Tracking space objects is actually not a new mission for DND. Canada operated a system of two space tracking sensors for over 20 years, up until the early 1990s. However, the film-based Baker-Nunn cameras of the original telescopes required significant manpower and time to operate and eventually fell prey to resource limitations and technological progress. Conversely, the GBO sensors use chargecoupled devices (digital cameras) on robotic telescopes to perform their assigned tasks automatically, and the system can be managed by one or two remote operators.

The GBO System is operated from 22 Wing North Bay by CF personnel from 21 (AC&W) Squadron at the newly established Sensor System Operations Centre (SSOC). Operators there control the sensors by uploading a script of the tasks to be performed during the upcoming evening's shooting period, which is then automatically carried out by

the remote sensors throughout the night. Once the image data has been automatically processed by a facility located at Defence Research and Development Canada (Ottawa), the final tracking data is made available for the CF operators in North Bay to transfer to the US SSN. “Our initial cadre of Space System Operators are excited to be bringing this revitalized capability back to DND,” says LCol David Dixon, Commanding Officer of 21 (AC&W) Squadron.

“They have been heavily involved with



of the atmosphere. Thus, it will be an all-weather, 24/7 sensor, unlike the GBOs which can only work at night and are frequently held back by weather. “These sensors are paving the way for Sapphire in terms of establishing communications paths with the US SSN in the training of military personnel in North Bay and in establishing contacts

within the organizational and operational elements of the US SSN,” notes Col André Dupuis, Director Space Requirements and project sponsor for the SofS Project.

“Not only has the GBO System proven to be invaluable as a risk mitigation system for Sapphire on our side of the border—it has also helped a multitude of

US organizations to become familiar with the process of integrating a foreign nation's sensors into the SSN, and the importance of this cannot be understated.”

The GBO System will continue to operate until the Sapphire satellite is established in its own operational role of tracking space objects. In the meantime, apart from silently and automatically continuing their nightly vigil in the skies, the GBO sensors will continue to more than prove their worth as DND gains valuable experience in the process of integrating a sensor into the SSN—leading the way for Sapphire's own successful launch and integration in 2012.

The true star of the show will be a satellite called Sapphire which is due to launch in 2012. Although Sapphire works on basically the same principal as the GBO sensors, it has the added advantage of operating far above the hampering effects of the atmosphere.

standing up the SSOC, conducting training on these unique systems and integrating the GBO sensors into the SSN. Now they are ready to put all of their preparation and training to good use.”

The GBO System is a sub-project of the Information Management Group's Surveillance of Space (SofS) Project and, in essence, really just the opening act for a much bigger show. The true star of the show will be a satellite called Sapphire which is due to launch in 2012. Although Sapphire works on basically the same principal as the GBO sensors, it has the added advantage of operating far above the hampering effects

Coming Soon in a Theatre Near You:

MAJYANN BOUDREAU, DIMEI 2

THE WORD WINDOWS 7 APPEARS TO BE the flavor of the month and everyone wants it. This article was written in order to provide you with the necessary situational awareness about this upcoming migration effort and help you manage expectations of both local service providers (LSPs) and end-users. Should you have any question(s) that you did not find the answer to in this text, please consult the newly created Windows 7 Information Portal¹ or contact +DMI@forces.gc.ca for more information.

Why Move to Windows 7?

There are several reasons why the department has to migrate to Windows 7. First, Windows 7 is a more secure operating system than Windows XP. In addition, Microsoft has announced the end of life of Windows XP scheduled for 8 April 2014. If you are still not convinced, the Treasury Board Secretariat (TBS) has recently mandated all Government of Canada (GoC) departments to migrate to Windows 7 by 31 March 14.

In preparation for this upcoming D-day, the Desktop Modernization Initiative (DMI) team and National Desktop Management (NDM), lead by DIMEI 2 and DIMEI 7 respectively, have been working hard to deliver the new Windows 7 DND Enterprise Desktop Baseline, which is expected to be available in June 2013.

What will the DND Windows 7 Enterprise Desktop Baseline Consist Of?

Treasury Board Secretariat (TBS) has mandated a minimum desktop configuration for all GoC departments. In order to meet this direction, the following capabilities/applications will form the DND Windows 7 Enterprise Desktop Baseline (Table 1).

A New Way to Deliver and Manage the Desktop

The roll out to Windows 7 will leverage a new capability now available on the modernized SCCM 2007 infrastructure: OS Deployment (OSD). This capability allows central management of a Windows 7 desktop baseline that will become the foundation for all Windows 7 workstations connected to the DWAN and CSNI networks. In the old days, migrations to new operating systems

were made possible with armies of students and a plethora of Norton Ghost CDs/DVDs. The process will now be different and most of the deployments can now be automated, allowing a smooth and faster migration. Table 2 is a quick summary of some of the key changes to be introduced with the advent of Windows 7 at DND.

How Will Windows 7 be implemented at DND?

The roll out of Windows will be a decentralized activity. The DMI team will contact major sites that are considered tier 2 IT service providers in the current support model and will oversee the progress of their site preparations activities. At the present time, there will be a series of five waves of site preparation activities to be conducted at the main tier 2 local service provider sites which are:

1. 27 May 13: Halifax, Shearwater, Edmonton, Borden
2. 17 Jun 13: Toronto, Gander/St-John
3. 2 Jul 13: Kingston, Bagotville, Comox, Galetown, Cold Lake
4. 1 Aug 13: Greenwood
5. 3 Sep 13: Yellowknife

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Minimum Mandated TBS Desktop Configuration	Current DND Windows 7 Enterprise Desktop Baseline	Comment
Windows 7 Enterprise SP1	Windows 7 Enterprise SP1 64 bits edition	
Internet Explorer 9	Internet Explorer 8	Will be replaced by Internet Explorer 9 prior to 31 March 2014.
Adobe Acrobat Reader 10	Same or newer	
Adobe Flash Player 11	Same or newer	
Microsoft Silverlight 5	Same	
An Anti-Virus Application	Symantec EndPoint Protection (SEP) 11	SEP 11 will soon be replaced by SEP 12
An Enterprise Device Management Application	SCCM Desktop client	
A Remote Desktop Management Application	Windows 7 Remote desktop connection	
A Disk Encryption Application	Not available at the moment.	Requires the MDOP subscription (MBAM) in order to have an enterprise managed solution. MDOP will be available once new GoC Microsoft Enterprise Agreement is established.
Java V6 VM	Same or newer	
Microsoft .Net Framework 3.5	Same	
Not required by TBS: Host Intrusion Detection Software (HIDS)	Cisco Security Agent (CSA)	Will be replaced by Storm Shield no sooner than Sep 13.

Table 1

¹ Available at: <http://dlm-afile-contentserver.mil.ca/production/cninv00000000007768/index.html>.

Windows 7 — Continued from page 37

There are currently many Windows 7 pilot sites at DND: NCR, Esquimalt, Valcartier, Winnipeg, Trenton, North Bay and Petawawa. These sites can expand the Windows 7 footprint as they see fit, contingent on availability of applications required by their end-users.

The start of site preparation activities does not mean that deployment of Windows 7 starts immediately at a site but rather that the site will be ready to perform successful OSD in a repeatable manner. Once a site's activities have been successfully carried out by the LSP, a virtual training session will be organized by the DMI team. The goal of the training session is to ensure site administrators become familiar with the DND Windows 7 solution and gain hands-on experience with the various OS deployment techniques. Upon completion of the training each site will manage its own roll out of Windows 7 but will also be responsible to oversee site preparation activities for subordinate sites under their area of responsibility. A phased implementation approach at each site is recommended and consists of:

- Phase I: deployment to 10 workstations on the same SCCM distribution point (DP)



and September 2013. The deployment of Windows 7 on CSNI will begin shortly after.

Where Can I find More Information About Windows 7?

In order to help with the migration efforts to Windows 7, the DMI team has established a Windows 7 information and training portal² that targets two groups: administrators and end-users. Wide dissemination of the link for the Windows 7 information portal is encouraged. A community of practice (CoP) forum has also been established to allow the sharing of technical information and knowledge that could be reused by others.

How Will Windows 7 Affect Me?

Migrating to Windows 7 amplifies some problems that currently existed such as storing Microsoft Outlook PST files on the network. Although this was never a

Outlook 2010 also uses different compression architecture and cases have been reported where some previous Outlook file format got corrupted when opened with Outlook 2010. The National Desktop Management, formerly known as the Defence Software Baseline (DSB) team, has published a work around that should provide local service providers (LSPs)⁴ some knowledge on this limitation.

In order to minimize the likelihood of loss of corporate records due to corrupted Outlook PST files, it is recommended to LSPs to develop their own archival solution (procedural or technical) and instruct their end-users to locally save their PST files. The requirement to implement this change was briefed at the IMCCB held 15 May 2013 and a class 1 RFC (29625) will be raised to communicate required change.

Other notable changes/limitations introduced with Windows 7 can be found on the Windows 7 information portal.

What Applications are Ready for Windows 7?

Windows 7 application readiness (testing and packaging) is a decentralized activity and is by far the key major dependency, which is currently on the critical path, for migrating users to Windows 7. Life Cycle Application Managers (LCAMs) are responsible for testing their applications and packaging of local applications. The National Desktop Management (NDM) is responsible for packaging and deploying national applications to the desktop. To find out what national applications are currently available, please consult the NDM website⁵.

Nationally distributed applications will not be packaged for deployment on Windows 7 by the NDM until Windows 7 testing has been successfully completed by the LCAMs and test results are captured into the Application Portfolio Management (APM) database⁶.

To request access to a Windows 7 environment (DWAN or CSNI), please contact the National Desktop Management (NDM) at: +NDM@forces.gc.ca.

	Current State (Windows XP)	Future State (Windows 7)
Desktop Baseline Management	Each LSP is provided a recipe to make their brew of the Windows XP and supports it.	Each LSP will be provided a centrally managed core Windows 7 enterprise desktop baseline that can be tailored after deployment to their needs with advertisement of local applications.
Security Posture	Security not consistent. Every LSP can interpret the recipe differently. Security is as weak as the weakest link.	Consistent security posture across the network by virtue of a centrally managed core desktop baseline image. National GPO DNDCB created and based on the USGCB security template.
Deployment Type	Handraulic or army of students using Ghost CDs/DVDs.	OSD offering many deployment scenarios to suit the needs of each LSP.
Driver Management	Each LSP maintains driver libraries and different ghost image supporting different hardware.	New SCCM Hardware Driver Library centrally controlled capturing the most used drivers.
Remote Access capability	DVPNI at end of its useful life.	Modernized T-DVPNI infrastructure connecting over 3G/WIFI and Ethernet.

Table 2

- Phase II: Deployment of another 10–15 workstations on different SCCM DPs.

- Phase III: General Deployment based on application availability.

A similar approach will also be applied for the deployment on CSNI once the corresponding SCCM infrastructure is ready. A tentative CSNI technical pilot (25 users) is expected to take place between June 2013

Microsoft-supported configuration³, storing PST files over the network never caused real problems under Windows XP. However, for unknown reasons, there is a high risk for corrupting PST files saved on the network when running Windows 7 and Outlook 2010.

² See footnote 1.

³ Refer to the following link for more details: <http://support.microsoft.com/kb/297019>.

⁴ Refer to the following link for more details: <http://dsblcsf.ottawa-hull.mil.ca/Docs/Apps/MOoffice2010/KBs/KB50801.htm>.

⁵ Please visit: <http://dsblcsf.ottawa-hull.mil.ca/apps/default.asp?ID=4>.

⁶ Consult the Application Portfolio Management website for more information available at: <http://dportal.mil.ca/DGIMSP/AR>.

The Thunder, the Grace, and the Rock

MWO RICK WARD, CTECH CHPC, CFS LIETRIM

THE WORLD WATCHED IN AWE, THE crowds thundered and roared and even those in wheelchairs stood a little taller. It was London 2012 and the Paralympic Games. We all knew what each athlete was capable of but, this time I believe that because of the lavish attention that the media gave us, the world was presented with feats that they have never imagined. We watched the archery competition where American Matt Stutzman won a Silver medal - did I mention that he has no arms, and when Brazil's Alan Oliveira beat Oscar Pistorius (fresh from the Olympics) in the 200m T44 event. For those of you that did not watch it live, check out YouTube. So much was achieved at these Paralympics not only in performance but also in raising awareness for persons with disabilities.

As time went on in the Paralympic Village we would always know when an athlete from Team GB (Great Britain) was competing, as we could hear the cheers. The stadium was about a 20 minute walk away but the roar was still heard. You could tell that the home team really had the support of the fans, which was something that I did not hear in Beijing four years ago. Different country, different support, different passion.

Speaking of support, our gracious volunteers were outstanding. If you asked

with what ever you asked for. Even the Bobbies got in to the act, but that's another story.

Murder ball was a blast. You may know it as wheel chair rugby. We were fortunate to watch two games, the Australia Canada game in the round robin and then the gold medal game where the two teams met again. We had the opportunity to attend the first game on short notice and after we had rolled into the spectator area we realized that we had worn our green and gold Canada team shirts that day. Well guess what colours Australia wears ☹. For the gold medal game we were sure not to make that mistake again, red and white all the way.

The Canadian Shooting Team produced a serialized gold team coin just in time for the games. Most people in the military know what team or unit coins are given out for — outstanding performance. Well, we gave about 10 of them to some very deserving people. One person got one from me but did not earn it. Some where along the way, I lost mine. I hope it brings them luck and that my replacement coin stays with me longer.



MWO Rick Ward with the Paralympic torch.

for something and perhaps it was not really on the “allowed to do list” well you just got a smile and a whisper that said come with me. A few minutes later you were walking away

shot 600/600, and only eight of them went in to the finals. The good thing about shooting is that all scoring is done electronically. In the case of the 10 x 600 scores they were able to



Master Warrant Officer Rick Ward coaching Doug Blessin at the 2012 Paralympics in London.

determine who had the most inner 10's or X's and ranked accordingly. Those that shot the most went on to the finals. One poor athlete shot 599 with 59 X's. Had they made that one shot a 10, they would have been in the final. Another athlete shot a 9 on the last shot to finish with a 599 also. In this game, once you have the technical skills mastered, the difference maker is your mental toughness. Like one of my athletes Doug says, you have to be the rock, nothing bothers the rock; the rock does not feel anything. You just shoot 10's.

On a personal note, I would like to thank both my current unit, CFS Leitrim, and my former unit, CFIOG HQ, for their support in allowing me to participate in these events. Without their backing I would not have been able to be there for my athletes. On the same line I would also encourage our military leadership to foster and support participation in these activities. Partaking in a leadership role adds to the professional development of our personnel. Some of these experiences give us an education that cannot be had in the military but can be very applicable on deployments both at home and abroad.

Technical Team Building Through Physical Exertion

CAPT B.J. CROTEAU, 742 SIGNAL SQUADRON, OC DETACHMENT EDMONTON

THERE ARE A NUMBER OF INITIATIVES transforming the Signals Community of late. One of the most wide-reaching of these has been the stand-up of the new Government Department, Shared Services Canada (SSC), as well as its Canadian Forces counterpart Shared Services Group (SSG). They have respectively been charged with the provision of IT services to the whole of Government in the case of SSC, and specifically within DND in the case of SSG.

For the CF organizations which have historically ensured these services, welcoming new partners into the game has been an exciting challenge, reflected in how these organizations will be organized going forward.

From the perspective of 742 Signal Squadron, the historical provider of IT services in Western Area, this has thus far meant incorporating personnel from multiple employers and focussing efforts to work as a single team toward the goal of achieving provision of IT services and Garrison Command and Control capabilities. The team includes members of SSC and DND on the Public Service side, as well as military members of two CF units, 742 Signal Squadron and SSG's Shared Services Unit (West) (SSU(W)).

The convergence and cooperation of these elements into a single team is seen not only in the services successfully provided, but also those activities which build Esprit de Corps. Highlighted here are two of the most mentally challenging and physically demanding of these, the Canadian Forces Army Run and the 1 Canadian Mechanized Brigade Group Exercise MOUNTAIN MAN.

For the last 15 years hundreds of soldiers of 1 CMBG and supporting units have participated in Ex MOUNTAIN MAN, a 31.6km run with rucksack, 3.2km canoe portage, 10km paddle, and finished with a 5.6km ruck-run. On 30 August 2012, under the banner of 742 Signal Squadron, five members started and completed the race: four from 742 and one from SSU(W). As a team, they trained for four days per week for ten weeks leading up to the race, engaging in drills that would simulate the stressful conditions of the race.

In the words of one of the racers, Cpl Hitchens, "Portaging was easily the most painful thing I have ever subjected myself to," commenting that it's worse than walking across fire, which he'd actually done previously.



The team aspect was essential to the training, "We pushed each other along, challenged each other. We provided the motivation to push each other faster and farther than we would ever have gone on our own." Ultimately they felt that the team had an excellent showing for the Squadron's first foray into this competition, and that going forward will be far more competitive than they already are.



Following Exercise MOUNTAIN MAN, on 23 September 2012, the Canadian Army Run drew 18000 runners, seven racing under the 742 Signal Squadron banner, including two from SSU(W), one DND public service (who also happens to be an Army Reservist), and four from 742. Race organizers gave participants the choice to race for 5km or to complete a half-marathon; all of the 742 runners completed the longer half-marathon.

Commenting on the race, Capt Yadav stated that the easiest part for him was the motivation from his fellow runners, and the crowds cheering them on. This all fit into the race plan for Margaret Barrett, the DND Public Service/Army Reserve team member,

who said that she, "wanted to complete the run in a timing that not only met my goals but was motivating to my team members."

While foot races are individually scored, the training that goes into them beforehand, and the camaraderie required to get through their lowest points to finish comes from a well developed Esprit de Corps. Knowing that your team is at the finish to greet you, or knowing that you need to be at the finish to greet them is one of the most powerful motivators. That Esprit de Corps is developed through the shared struggle of training, and in the workplace through the shared accomplishment of tasks. So it is with transformation, while we are individually employed by multiple organizations and our efforts are sometimes isolated, as a team we help each other along, and as one team we achieve the mission shared between SSC, DND, 742, and SSG.



Results From Mountain Man

Capt Croteau 9:16:44
Cpl Hitchens 6:30:28
Pte MacNeil 5:55:22
Cpl Schultz 7:06:03
Cpl Glavin 7:19:01

Results From Army Run ½-Marathon

Capt Yadav 2:14:07.6
Lt Gergely 1:34:14.9
Sgt Hunt 1:58:37.9
Sgt Philp 3:32:51.9
Ms. Barrett 1:58:38.0
Cpl Garber 1:33:34.3
Pte Gillette 2:14:39.2

2012 Atlantic Region C&E Golf Tournament: A Resounding Success

LT T CARY, WTISS, 14 WING GREENWOOD

ON JUNE 28–29, 14 WING GREENWOOD HOSTED THE 10TH Annual Atlantic Region C&E Branch Golf Tournament held at the Greenwood Golf Club. Military members and civilians involved with our branch from all over Atlantic Canada were invited to participate in this event with a total of 21 teams registering. Teams of four played 18 holes on each day of the tournament under ideal weather conditions. It proved to be a great way of not only having some fun playing golf, but for meeting old friends and making new ones. The event was a resounding success with all participants walking away with excellent prizes and lasting memories.

Prior to the tournament, a professional development day was held on June 27th for all C&E branch personnel to attend. The morning consisted of briefings on upcoming major telecommunications projects at 14 Wing by Sandy Withers, DIMTPS Atlantic Region Designer, followed by environmental impacts of telecom projects and equipment by Stephen Sauveur from Environmental Services. In the afternoon, there was an informal discussion with CWO Bryan Peever, the RCAF C&E Senior Occupation Adviser on the future of our branch from an Air Force perspective, as well as significant changes coming to the ATIS trade.

The tournament kicked off on the 28th with Col James Irvine, 14 Wing Commander, driving the first ball after speaking to all participants. After two gruelling days of golf, and a pig roast Thursday night, one team stood out above the rest. The Sig Swingers with team members Weldon Rideout, Jeff Purchase, Jason McNeil, and Scott McNeil won the tournament with an unbelievable score of 17 under par over the



Winners of the 2012 Atlantic Region C&E Branch Golf Tournament in front of the 14 WTISS sponsored hole. From left to right: MCpl Weldon Rideout, Sgt (Ret'd) Jason McNeil, Scott McNeil, MCpl Jeff Purchase.

two days. The event was not without incident however; as an un-named Private managed to take out a wood post with his golf cart while the Wing Commander and Wing Chief observed from the golf club patio. The post was quickly replaced and followed by a swift getaway.

The success of this year's tournament would not have been possible without the generous support of 14 Wing and corporate donations, as well as the outstanding dedication of the organizing committee chaired by Pte Jordan DeLong, who pulled it all together. It was an excellent opportunity for branch members of all ranks to get together and build esprit de corps. Organizers hope the tournament next year will bring even more branch members and we look forward to seeing you there.

C&E Branch CISM Shooter Takes Silver Medal

MCPL PAT BOULAY, 772 EW SQUADRON

WHEN I MADE MY FIRST TRIP TO a CISM shooting training camp in 1994 I had no idea what I was getting myself into. I'd practiced other shooting disciplines but it was my first introduction to this type of shooting. If you'd told me "in 1999, you'll go to the world CISM games and walk around the track in the opening ceremonies like at the Olympics" I never would have believed you. That day in Zagreb, Croatia, I decided I'd raise my game and become competitive with the best — my goal was the Olympics.

After thirteen years, countless hours at the range, dry training and learning about sports psychology everything came together at the 47th World Military Shooting Championships on December 5th in Guangzhou, China. During the match I had no idea of my



MCpl Boulay on the podium at the 47th World Military Shooting Championships.

overall standing, all my effort was focused on shooting. Afterward, as I was packing up, my coach called my name and pointed to the score board. And there it was — the Canadian flag in second place. Pride surged into me and brought tears to my eyes knowing that I'd put it there. During the medal ceremony,

seeing the flag raised with the best in the world, knowing that the field included Olympians and world champions, I realized that my ultimate goal is finally within my reach.



MCpl Pat Boulay, silver medalist in the 25M Sport Pistol Match Women at the 47th World Military Shooting Championships Guangzhou, China 1–9 Dec 2012. MCpl Pat Boulay is an ACISS(Reserve) posted to 21 EW Regiment/772 EW Squadron in Kingston.

Colonel: BDF More Than Guns, Bullets and Boots

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THE BARBADOS DEFENCE FORCE HAS more to offer this country than guns, bullets and boots.

This is the word from head of the BDF Colonel Alvin Quintyne. He was speaking at the closing of a information technology course delivered by the Canada Force School of Communication and Electronics to select law enforcement officers from eight countries throughout the region.

Colonel Quintyne explained that the Barbados Defence Force also uses the information technology knowledge gained from the partnership with Canada to the benefit of Barbados' national development.

"This partnership has not only made a sterling contribution to capacity building in the military and police forces throughout the region, but has enabled the BDF to contribute significantly to Barbados' national development in the area of information technology. For your information, thus far, well over nine hundred members of staff from various government departments in the public service have benefited from participation in IT training courses that were conducted in this training centre," Quintyne said.

He further divulged that the BDF also helps to educate in IT at the CXC level.

"Another major accomplishment is the delivery of educational classes that lead to certification in information technology at the Caribbean Examinations Council General and Advanced levels."

"These CXC IT programmes initially organised for the BDF's personnel and members of their families have been expanded to include secondary school children and some members of the public service. The results have been very impressive," Quintyne stated. The BDF head maintained that these educational programmes are the Force's way of contributing to national development as more than just a military entity.

"I have mentioned that to say to you that as military forces we have a contribution to make in national development. This is one way that we as members of the Defence Force have found that we can make that contribution. There is more to us in the military in particular than guns, bullets and boots and if we can use the bits and bytes to also assist in developing our nation state [we will]," he stressed.



Corporal Mario Greaves (left) of the Barbados Defence Force accepts a certificate of participation from the Canadian High Commissioner, Richard Hanley.

End of an Era — Continued from page 28

in this international environment, particularly during a period of unprecedented operational tempo, has been both extremely challenging and rewarding.

Between 2012 and 2014, the CF will conduct a phased withdrawal from the Component and NATO AWACS. The final days will be celebrated with mixed feelings, regret and sadness for ending involvement in such a high profile and prestigious role and for leaving a European lifestyle thousands of Canadians embraced over the years, but we will also celebrate with great pride our contribution to NATO operations. Canadians not only worked with outstanding professionalism and as tremendous ambassadors of Canada, but often acted as honest brokers and facilitators, to help ease tensions and achieve compromises among diverging opinions on the way ahead. As we remain involved in the U.S. AWACS program it is possible some

will be able to perform airborne warning and control missions again, but, for most, it is the end of an era. For the C&E members who have worked so tenaciously over the years supporting this capability, we will think of you all as we toast our legacy and this unique chapter of our heritage.

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