



**The Armoured Corps Within CMTC**  
**By Maj J.P. Huet, MSM, CD**



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The mission of the Canadian Manoeuvre Training Centre (CMTC) is to produce and provide collective training exercises for Canadian Forces (CF) land task forces (TFs) in a full spectrum of operations in a simulated contemporary environment to produce competent and confident TFs for operations. The armoured corps plays a very important role within CMTC in accomplishing this mission.

Several key positions at CMTC are currently held by personnel from the three armoured regiments. For example, the CMTC chief warrant officer, the observer controller (OC) chief instructor, the Contemporary Operating Environment Force (COEFOR) commanding officer, and the reconnaissance and tank team leaders of the OC group are all personnel from LdSH(RC), RCD and 12e RBC. A total of 32 armoured corps members are permanently employed at CMTC: 10 at CMTC HQ, 14 in the COEFOR and 8 in the OC group. Over the past few years, almost all of these members have worked in the theatre of operations in Kabul or Kandahar in a BG, PRT, OMLT, etc.



Maj Huet in discussion with Capt R. Williams, RCD, during a plane crash scenario on Ex MG 0802 in Wainwright. Photo: WO Steve Hoffman, Army News



A Leo C2 from LdSH(RC) supports an infantry section in a section attack during Ex REFLEXE AGUERRI 09 in Fort Bliss, Texas. Photo: WO Steve Hoffman, Army News



When I arrived in Wainwright, I was pleasantly surprised to learn that CMTC is responsible not only for the annual MAPLE GUARDIAN (MG) exercise, but also for the Reserve exercise, MAPLE DEFENDER (MD). In addition, CMTC is very involved in pre- and post-MG exercises, including DESERT RAM 09, a level-three exercise for TF 3-09 that took place at CFB Suffield in April 2009, and RÉFLEXE AGUÉRI 09, an exercise that was held recently at Fort Bliss, Texas, to maintain the skills of TF 1-09 soldiers from 5 Canadian Mechanized Brigade Group (5 CMBG) before their deployment to Afghanistan. We are also conducting an exchange with the U.S. National Training Center (NTC) in Fort Irwin, California, to share our Afghanistan expertise with American OCs for their force-on-force training for their rotations in Afghanistan. Our knowledge of after action reports (AARs), our AAR process and our wide range of experience in a variety of areas (C-IED, force protection, tactics, handling of detainees, etc) in the theatre of operations in Afghanistan bring added value to any organization's training.

Because the number of permanent members at CMTC is limited, a number of non-permanent members are needed to fill vacant positions for the MG exercises in the OC group and the COEFOR. These positions are very important because they ensure that the exercises run smoothly and, above all, that the sub-units involved in the exercise learn everything they need to learn. The three armoured regiments must continue to send their members who return from Afghanistan to CMTC so that they can share all of their operational experience with those who are preparing to go overseas. This exchange of information at all levels is crucial to the preparation of sub-units, and the regiments should not hesitate to assign their members to MG exercises. This type of commitment results in reconnaissance and/or tank squadrons that are better prepared for the challenges that await them in Afghanistan, and this will help save the lives of our soldiers, who are so precious to us.



A Coyote from B Sqn 12eRBC conducts a presence patrol during Ex REFLEXE AGUERRI 09 in Fort Bliss, Texas, Jan 09. Photo: WO Steve Hoffman, Army News



Sgt P. Beaupre, Plt Comd with B Sqn 12eRBC on TF 1-09, speaks with a villager while Maj Huet observes. Ex REFLEXE AGUERRI 09 in Fort Bliss, Texas, Jan 09. Photo: WO Steve Hoffman, Army News

For those of you who feel uncertain about the prospect of being posted to CMTC at CFB Wainwright as a member of the OC group, the COEFOR or HQ, I can assure you that the work is highly interesting and challenging. In addition, you can work with members from the other armoured regiments and other occupations in the Army. CMTC is an institution and a learning environment that gives you the opportunity to develop your skills in your occupation, learn more about other aspects of the organization and, above all, keep abreast of the tactics, techniques and procedures that are used regularly in the theatre of operations.

I hope to see you soon.



## **Tactical Laws in Simulation**

**By Col C.S. Oliviero, CD, PhD**

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**Col Oliviero is currently the Contractor On-Site Representative for Calian Technologies and is responsible for the five Simulation Centres across the Canadian Army.**

Ten years ago when I retired from the Regular Force, I joined what is now the Army Simulation Centre in the Directorate of Land Synthetic Environments as an exercise developer and exercise controller. We were all relatively new to the use of simulation in those days and it was a common complaint of members of the training audience to accuse the simulation of not accurately portraying the realities of battle. I must admit that initially I shared many of concerns that were being expressed. Having grown up in a generation of Armour officers who spent long months in the field each year, I too felt that the artificialities of computer simulation did not properly take into account the realities of cross-country manoeuvre, the superior tactics that we used or even the outstanding fire control systems that we used versus the weapons of the defunct Warsaw Pact.

I was wrong.

Over the course of the next six or seven months I was tutored on the two simulations that we used at that time (JANUS and CAST). With the help of experienced compatriots like LCol (Ret'd) John A. Macdonald (12<sup>e</sup> RBC), LCol (Ret'd) Dave Graham (RCD), and LCol (Ret'd) Norm Hass (12<sup>e</sup> RBC) as well as a platoon or so of retired infantry and artillery officers I was coached in the finer points of simulation. Once I was confident that I could master the machines, I built scenarios to test my hypotheses. I built simple scenarios with Leopard 1, Leopard 2, M1, T-72, T-80 and innumerable infantry fighting vehicles. Both during the course of mandated training and between training events where I could repair to the "lab" to run discreet simulations, I became absolutely convinced that the simulations were extremely trustworthy and a reliable training tool to teach tactics to commanders at all levels.

Before going on, I wish to be absolutely clear that I have NEVER supported the use of simulation (of any type) to replace live training. Simulations, however powerful, must be used to *augment* field training. Simulation can never *replace* live training.

Once I had become convinced, I then had to convince all of the people who used our simulations, whether they were receiving the training or supporting the simulation. That proved to be a challenge but over time and with the use of several well-designed short exercises it was not long before most users became converts and most converts became disciples. Whether training individual crew commanders to move tactically and to perform blind corner, crest and defile drills or whether it was newly appointed brigade commanders who were trying to push their Reconnaissance Squadrons, the "skills and drills" that were learned in the simulated environment were directly transferable to the field and to operations. There are more than a few members of the Corps who can attest to the gut-wrenching lessons that are learned when Coyotes are used to fight for information or when Leopards blunder into a "trap-door" ambush consisting of well-sighted Sagger. Luckily for everyone, the only damage done is to ego and pride and all participants live to fight and to learn another day.

The simulations that are available to commanders today are more sophisticated and sometimes shockingly real. But the lessons are the same. I encourage commanders at all levels to maximize the use of the Army's simulators to better prepare



their soldiers for duty, whether it is in a Canadian garrison or an Afghan forward operating base. Either way, let us review the basics. Nothing below is new or earthshaking. None-the-less it is important for both newcomers and experienced simulation users to remember the basics. So, as you venture into the synthetic environment, remember that it is not a game – it is the *simulation* of a game . . .

### FIGHTING IN SIMULATION.

There is now a well-documented *simulation effect*. It has been observed that casualties are inevitably higher in simulation than they might be in real life. Commanders continue to have a tendency to attack long after they have lost tactical integrity; defenders rarely surrender, often fighting to the last soldier. Although there are rare occasions in history where units have behaved in this way, such tactics does not really reflect Canadian doctrine. Keep this reality in mind when using simulation: If you would not do it with *live* ammo, do not do it in *simulation*.

Of all of the misunderstandings regarding simulation the tactical issue most misunderstood and therefore most often criticized is that simulation does not accurately portray fire and movement. NEVER accept the criticism that simulation does not allow you to fight and move. Just as in real life, simulation will punish anyone who moves *too soon* or *too late*. Firing and moving at the right time is extremely difficult to do in simulation – just as it is in real life.

### Offence

1. When moving in the offence, tactical integrity must be established and maintained. The two types of movement available in the average tactical scenario are *caterpillar* and *leapfrog*. Which one you use depends on your mission, the ground, the tactical formation and, of course, what level of risk the commander is willing to accept. The important point to remember is that just as in real life you must *never* move all vehicles simultaneously.
2. If you come under fire while advancing, you must STOP. By stopping, the simulation will quickly put your vehicles into full or partial defilade (as supported by terrain), -- just as a good crew commander would in real life. Blindly advancing will only ensure that your vehicles continue to be shot at.
3. Do not forget that many vehicles have local smoke. Firing local smoke will often give a vehicle the extra few seconds required to save it from a direct fire hit.
4. Especially when using armour, concentrate fire and fire in volleys. Massed fire is much more effective than piecemeal shooting.

### Defence and Delay

5. When preparing a defensive position the sequence in which you site your vehicle and weapons systems is critical. Without getting into a major discussion on whether tanks or TOWs are the best tank killers, let us just say that one or the other are sited first. If you sited the TOWs first then site the tanks next and vice versa. Next site the ERYX, MILAN and any other Anti-Armour weapons that you have. Lastly, site the infantry vehicles and the trenches. Remember that in mechanized warfare, the dismounted infantry is sited primarily to protect your vehicle-killing weapons systems.
6. The single most important aspect of siting your weapons is picking the right ground. Use the tools in the simulation to help you. You can use various techniques to help you to read the ground, find dead ground and reverse slopes. (As an aside, you can use a simulation like JCATS to help you learn (or teach) how to read ground.) When possible you should choose reverse slopes and enfilade shots. What this means is that you need to site your weapons so that you kill the enemy without him ever seeing you. The days when armour sought forward slopes and only infantry was in the reverse slope are gone. NEVER put your long-range killing systems on a forward slope to get some long range kills. This is a mug's game. Many OPFOR systems can shoot further than ours do. And even if you do manage to kill a few you will be escaping *uphill* and thus cannot survive.
7. Armour doctrine still teaches the use of primary and alternate positions. If you have the time and the resources, build these positions in the simulation; find covered routes; reconnoiter the routes from one to another. Once the enemy engages you, it will become obvious why our doctrine teaches certain techniques: they are battle winners.
8. Battle, whether in life or in simulation is like comedy: timing is everything. Move sufficiently early that you are not moving in the face of the enemy. Move too early and you give up your advantage; move too late and you are the target instead of the enemy.
9. Use DEAD GROUND.
10. The OPFOR will not keep blindly feeding his troops into the maw of fire that you establish. When your tanks and anti-armour weapons unmask the OPFOR will stop advancing and seek cover (just as we would do). So what? So *do not* unmask your weapons at maximum ranges. Wait until the enemy is *inside* the range band before allowing the weapons to open fire. This means that lead OPFOR vehicles will likely be within 800-900 meters. By unmasking all vehicles at the same time, survivability of your force increases dramatically. In simulation you have the ability to train and demonstrate how a well-trained troop or squadron would behave by putting all vehicles in FULL DEFILADE and then aggregating them. When you decide to unmask, give the whole unit an aggregate command and watch them fire almost simultaneously. (It can bring tears to the eye of an old cavalryman . . .)



11. Once an advancing OPFOR unit stops there is most certainly going to be artillery falling on your position within two minutes so do not tarry. Allow each vehicle to fire *no more than two* rounds. If you have correctly sited your troops and unmasked at the right time, this should mean that the OPFOR will virtually disappear. *Immediately* the OPFOR is destroyed, aggregate your forces and give them the GO command. Routes must already be created, plotted, reconnoitered and timed. This should get your force out of artillery range before it begins to fall on you.
12. DO NOT GET GREEDY. It is far preferable to have each of your tanks or TOWs kill an OPFOR tank and survive than to kill three tanks and die. SHOOT AND SCOOT. However tempted you are to stay, your position has been compromised and OPFOR artillery will wreak its vengeance.
13. Remember to pop local smoke before moving if there is any chance that your vehicles are still under direct observation.
14. DO NOT DISMOUNT INFANTRY. In the defence and delay, remember that the infantry is positioned behind the armour in order that the armour is not surprised. Should you find yourself trapped and have to fight your way out – THEN – dismount the ERYX and the mortars. Men on foot put into full defilade will survive a battle and may allow you to give covering fire to protect the escaping TOWs and tanks.

### Conclusions and Comments

Clearly, much of what I have written above relates to the conventional linear battles that we prepared ourselves to fight during the Cold War and that war is over. Our use of armour in the former Yugoslavia, Bosnia, Kosovo, Africa and Afghanistan has been different from the massive force-on-force battles that we foresaw on the North German Plain. None-the-less the tactical lessons of both the armour and the combined arms battle have not changed. I have referred to these procedures as “tactical laws” for good reason. We in the armour community have an obligation both to ourselves and to the greater combined arms team to ensure that whether we are practising infantry-armour cooperation in house clearing in *Wainrightestan*, teaching young crew commanders how to make maximum use of the Coyote’s incredible sensor suite, or laying down direct fire support from a troop of Leopards to support an infantry company that we get it right.

The powerful simulation suites that are available to all commanders at all levels in the five simulation centres across the Army are the most sophisticated and valuable tools that time, money and experience can buy. In a schedule that is already overburdened with training requirements, an hour spent in simulation in preparation for practising that skill for real can actually save many hours of valuable time as we prepare our troops to once more stand in harm’s way.

### *Regi Patriaque Fidelis*

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## **Forward Air Control**

### **By Capt C.M. Summerfield**

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**Capt Chloe Summerfield served as a Forward Air Controller and Recce Sqn AO and on Op ATHENA Roto 4. She is currently a FAC Instructor at Royal Canadian Artillery School in CTC Gagetown.**

The nine graduates of the Forward Air Controller (FAC) course 0902 will return to their units tired but pleased with their new skills. Their rest will be brief since most of the candidates will continue the road to high readiness associated with a pending deployment. These graduates should be proud of their accomplishments and be confident that they will bring an exceptional skillset to Coalition forces during their deployment. The course lasted almost ten weeks and consisted of a theoretical portion at the Artillery School at CFB Gagetown as well as a practical portion of nearly six weeks in Kansas and Oklahoma. In Gagetown, candidates learned the planning process involved in close air support (CAS) missions and how to integrate with personnel from the other supporting arms within the Coalition Forces.

When arriving on the course, the majority of candidates have no prior experience or knowledge with the use of aerial munitions. This being the case, they receive many lessons explaining the tactics of aircraft and the use of air-ground weaponry. This knowledge base is put into play during exercises in the simulators in Gagetown and Fort Sil, Oklahoma as well as during the live control with aircraft. The concept of Forward Air Control has become an essential element in modern warfare and a useful tool in the toolbox of the modern commander on the ground. The nature of the concept is such that weaponry is generally employed extremely close to the troops on the ground and much coordination is therefore required to safely plan missions. Along with supported commanders, FACs assume a great amount of responsibility in order to minimize the risks to the troops on the ground.

In preparation for these responsibilities, students on the course must display the capacity to employ aerial weaponry in diverse and complicated scenarios. These include fixed wing aircraft, helicopters, Unmanned Aerial Vehicles (UAVs) as well as support arms such as indirect fire. In support of the course, three Alpha jets from Montreal, five CF-18s from Bagotville, three CH-146 from Valcartier as well as three UAVs from the United States were employed. It was truly a multinational effort!



Despite the fact that the majority of students on the course were Artillery Officers and Non-Commissioned Members, things are evolving within the FAC community to include an increasing number of personnel from all combat arms in accordance with the Army strategy. New Forward Observation Officer (FOO)/FAC teams within the Brigades are already established and their operational deployment has begun. The teams are generated by the Army and remain under command of the Artillery regiments. The team leader will be a combat arms officer (or Air Force Officer) while the remainder of the team will come from the Artillery regiments.

Teams will be mounted in a LAV III, giving them the ability to dismount when required and to maintain communications with the FOO and the supported combat team's Artillery battery. These teams will be able to be attached to any unit or sub-unit, such as a recon squadron or tank squadron, in order to provide additional assets for the duration of a mission or a deployment. Within the Armour Corps, these teams provide an opportunity for officers and NCMs to learn exceptional skills, as well as working with other trades from within the Canadian Forces and other coalition partners. The skill set is complex and requires flexibility and mental agility. The risks associated are large but the advantages gained by this capacity are indispensable for all on the battlefield. What an opportunity for black-hats!