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SITREP

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Leopard C2 tanks of Bravo Squadron, Lord Strathcona's Horse (Royal Canadians) en route to the firing line at Tarnak Farm, south of Kandahar Airfield in Afghanistan.

DND / SGT LOU PENNEY TFA OP ATHENA

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From the Editor's Desk

Recent polls suggest that half of Canadians polled continue to support the Afghan mission. This coming after the most difficult months ever in terms of casualties and loss of life. The mission is just and any thoughts of withdrawing our commitment would amount to Canada ceasing to do the right thing. To sustain the mission until Parliament reviews the mandate in 2009 has resulted in a need for increased recruiting. The recruiting targets are being met.

This turnaround is ironic in light of the drawdown of the military throughout the Nineties imposed by the then government to fight the debt rather than meeting the most fundamental responsibility of any government that being the defence and security needs of its citizenry. Canada is relearning old lessons and encountering new issues related to its military being engaged in combat. There remains a lack of policy related to benefits for soldiers convalescing from battlefield injuries. Two generations of citizens are now learning about their military, having been denied learning about our rich military history and heritage by the education system. And universal truths are being relearned – the combat arms fight as a system – a system that as a minimum consists of infantry, armour and artillery fighting together as a team. The absence of any one of the three risks loss of life, mission success and contributes to the likelihood of defeat.

In our ongoing attempt to understand and cope with radically alien value and belief systems espoused by religious terrorists, Norman Conquest, an American, posits that people are motivated by their beliefs, perception and will and that conflict in the cognitive domain lies at the centre of war. Furthermore he states that long-term strategic victory for the most part will be attained through a successful campaign in the cognitive domain rather than winning battles in the physical domain.

Hitherto the subject of professional military education has received scant attention in this journal. Dr Peter Foot contributes an excellent article on the need for professional military education to be a vehicle for transformation and suggests that national defence and security institutions such as command and staff colleges, war colleges and military colleges must develop security apparatuses and people that can deal with the “unknown unknowns,” the unforeseen that come from outside one’s terms of reference, experience and value system.

Sunil Ram provides a comprehensive update on the ongoing appalling situation in Africa – hard to remember that Canada played a key UN role in the Congo over forty years ago and that subsequent UN missions have achieved little success in mitigating the situation.

Dr. Paul Mitchell offers an interesting examination of the promise and perils of information and communication technology, a technology that barely touched people ten years ago that today has become a dependency for so many. Are we any better for it?

Permit your Editor to contribute a piece on the enduring nature of the land battlefield and that tanks are a necessary part of the land combat team system. It appears that future warfare, as predicted by many, has been trumped by the realities of past and present warfare.

Lastly, we have received a letter to the Editor and a response – both are included.

Sincerely



Colonel (Ret'd) Chris Corrigan
Editor of *SITREP*



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OFFICIAL PUBLICATION OF THE ROYAL CANADIAN MILITARY INSTITUTE

426 University Avenue,
Toronto, Ontario, M5G 1S9
416-597-0286/1-800-585-1072
Fax: 416-597-6919

Editorial E-Mail: ccorrigan1@cogeco.ca
Website: www.rcmi.org

MASSACRE IN FALLUJAH: A LASTING LESSON ON THE CRITICAL ROLE OF PERCEPTION AND COGNITION IN WARFARE

by Norman Conquest

Editor 's prologue: In a highly publicized attack on March 31, 2004, four private military contractors from the U.S. company Blackwater USA were dragged from their vehicle and killed. Their bodies were then mutilated and burned. These acts were videotaped by journalists and broadcast worldwide. This led to an abortive US operation to recapture control of the city in Operation Vigilant Resolve, a siege of the city called Operation Plymouth Rock, and a successful recapture of the city in November 2004 called Operation Phantom Fury which resulted in the reputed death of over 2,000 insurgent fighters and the loss of 92 American Marines KIA and over 500 wounded.

This insightful article is most prophetic given that it was written within days of this event two and two-thirds years ago and the painful lessons that have been learned since.

The question has been raised regarding the recent brutal, vicious, and apparently locally popular attack on American personnel assisting with food relief in Fallujah “How can these people (the attackers, those who desecrated the charred remains of the bodies, and those who cheered them) rationalize a brutal attack on people who have come to help and feed them?” The answer is simple, if not obvious.

These people were acting on their beliefs. Beliefs need have no relationship to objective reality. Beliefs are shaped by the frames of reference of individuals and groups. These frames of reference determine how people think about and discuss things. They, in turn, are shaped by personal predilection and by group culture (usually at multiple levels). The range of possible perspectives of anything is infinite; and the views that any given individual or group may hold of anything may strike us as surprising, bizarre, or even pathological (and they may indeed be); but a skilled and daring propagandist may put forth any assertion; and a credulous audience may embrace even the most preposterous notions, if they are inclined to do so. As objective reality is

“Norman Conquest” is the pseudonym of a Field-Grade Officer in the United States Army Reserve of some 28 years commissioned service in Military Intelligence, Counter-Terrorism, and other fields. Mr. Conquest currently works as a Defense consultant and is constrained by his position from using his real name in publications such as this. His articles herein are excerpted from private correspondence that he has composed in support of the “Cognitive Domain Cabal”, an informal, unofficial, and diverse group of defense professionals dedicated to the proposition that the “Cognitive Domain” is the dominant domain in conflict generally, and warfare in particular.

filtered through perception shaped by frames of reference, black can become white, up may become down, in may become out. Everything is possible in the human mind and heart.

In this case, the frames of reference of the population of Fallujah have clearly been shaped by our enemy to suit their purposes, and to oppose our own. These people have been made to believe that their victims, and perhaps even their victims’ relief efforts, were evil. They brutally, viciously, and enthusiastically attacked what they believed to be evil (as they defined evil). Their frames of reference shaped their perceptions, which in turn shaped their actions.

This is neither new nor unusual. I remember as an adolescent in the late 1960s and early 1970s being astounded by the skill with which the Communists shaped Americans’ frames of reference with regard to the Vietnam War. I could see all this in my family, among my friends, and throughout the popular media (to include print and television news). I was even more astounded by the fact that this shaping went almost totally unnoticed, even by the government and the military. This shaping was both profound and effective. It literally defined the terms of debate on the war, within our country and around the world. By 1968, it had delegitimized the very idea of Allied victory. It ultimately won the war for the Communists in Washington, D.C. when America’s national leaders could no longer conceive of or even desire any other outcome. After the war, when American Colonel Harry Summers commented to North Vietnamese General Vo Nguyen Giap that U.S. forces had won every battle of the Vietnam War, Giap famously replied “That’s true. It’s also irrelevant.” The Vietnam War was won and lost in the cognitive domain, irrespective of objective factors. The successful and brilliant Communist campaign was virtually uncontested, and went largely unnoticed.

In the late 1970s, Iranian radicals seized the U.S. Embassy in Teheran and held its staff hostage. I was appalled to witness the American media, population, and government immediately dismiss the radicals and the government of Iran as insane, and therefore impossible to influence. They were clearly neither; but this dismissal, rooted in our own provincialism rather than in objective reality, constituted a great victory for our enemy. It excused inaction on our part (beyond Jimmy Carter’s audacious dimming of the national Christmas tree lights), and thereby shielded our enemies



from any retaliation, yielding uncontested control of the battlefield to them. Our own self-imposed impotence and Iranian intransigence in refusing to return our hostages continued until the minute that a new, more worldly, administration took power in the United States. The ebb and flow of that war was conducted almost entirely in the cognitive domain. The substitution of Jimmy Carter's cognition for that of Ronald Reagan, and the enemy's appreciation thereof, was sufficient to reverse its outcome and bring it to an end.

We are seeing the same dynamics at play in Fallujah, throughout the world, and in our own country. Conflict in the cognitive domain lies at the center of war. It also lies at the center of terrorism, which is a type of war. It determines perception and will. We can win any number of battles or campaigns in the physical domain; but in the absence of a successful campaign in the cognitive domain (or a willingness to exterminate entire populations, rendering the issue of their cognition moot), we cannot hope to achieve long-term strategic victory.

Americans seem to be poorly equipped to engage in campaigns in the cognitive domain. Our culture is a material one; and this causes us to think in physical terms. Orders of Battle are relatively easy to tally. The inherent difficulty of tracking and assessing perceptions offends our fetish for the quantitative. In spite of W. Edwards Deming's exhortation that "The most important numbers are unknown and unknowable", many feel that "If it can't be measured, it's not worth knowing." It is common for people and institutions to simply ignore that which is not intuitively obvious or readily quantifiable.

Being consciously pluralistic and multicultural, our society reflexively avoids matters of culture. Even thinking about or discussing culture and values is often viewed as vaguely impolite, or possibly even subversive (the question of subversive of what remains an interesting paradox). We make a point of not noticing or acknowledging culture or values; and we are dutifully oblivious to them as they change around us, vigorously eschewing any efforts to consciously manipulate them. Our pluralism often results in abrupt shifts in foreign and military policies, which makes it difficult to maintain the consistency that is the necessary basis of successful strategy, most especially in the cognitive domain.

Americans, God love us, are a provincial people. As such, we tend to assume that that which we know is necessarily universal. Accordingly, we assume that other people are largely as we are, and largely share our values. Because of this, we generally seek to influence foreign peoples as we ourselves would be influenced. We see others through a "mirror image"; and we attempt to interact with them according to the rules that govern our paradigm. We routinely

fail at this, or we ultimately succeed only at enormous and unnecessary expense. Trusting in faith and not in history, we do this again and again. Like any rational actor that finds themselves working on an unproductive path, but unaware of the existence (or even possibility) of any alternative path, when we determine that our efforts are fruitless, we redouble them. Thus, we find ourselves disposing of the world's largest economy and defense budget, striding the globe like a colossus, the world's only "hyperpower", able to humble any armed force anywhere in the world, but unable to pacify occupied territories or persuade small groups of lightly armed people that we are not their enemies and that random killing innocent civilians is not a legitimate expression of religious devotion.

Recently, advances in information technologies have enabled us to enhance our ability to transmit data; but here too, we do so in the almost total absence of consciousness of the cultural content or impact of that data, except at the lowest and most superficial levels (such as commercial product advertising). These facts have led us to focus on and dominate the physical and information domains; but to remain oblivious to actions in, and often even the existence of, the cognitive domain.

Most of our efforts and resources dedicated to conflict are only tangentially relevant to the central nature of conflict, especially the types of conflict that we now face. Human action is shaped, and wars are ultimately won and lost, in the cognitive domain. In view of this, all of our warfighting efforts should focus on ultimately achieving victory in that domain. Our existing doctrine and concept development work acknowledge the cognitive domain in passing; but do not focus on it, or acknowledge its primacy in war. As a consequence of this, there tend to be huge gaps in our offensive and defensive preparations for war and for military operations other than war, especially in the area of information operations (in its broadest sense). All of our preparations for conflict, starting with concept and doctrine development, should be structured with the need to dominate and win in the cognitive domain as both the point of departure and ultimate goal.

Conflict centered on the cognitive domain will strongly resemble "Political Warfare" in the sense that totalitarians have traditionally used that term. It will recognize the primacy of politics (as shaped by psychology and sociology), and the overarching need to orchestrate the employment of all instruments of national power (including the military, including in war) in order to influence key actors, organizations, and nations (friendly, hostile, and neutral) through

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MILITARY EDUCATION AS A VEHICLE FOR TRANSFORMATION

by Dr. Peter Foot

Transformation has long been a deliberately ambiguous term in NATO parlance. It is still frequently used by opportunistic military leaders, government officials and politicians to describe new defence postures, policies and procurements that, by virtue of being so hopefully packaged, will be largely immune to challenge by those who, for whatever reason, resist such apparent departures. Transformation and apple pie are self-evidently on the side of the angels, its proponents imply. Professional military education (PME) is one of the areas within the security field where this implication can be seen to be well-grounded and sustainable. Gone now is the assumption that only a selected few of trained fighting men and women need exposure to strategic studies for effectiveness in high command. For one thing, strategic studies as conducted in universities during the Cold War were based on analyses of the impact of technologies on the political developments bequeathed by the end of World War II. These conditions no longer dominate global concerns – the 21st century is unlikely to be centered on either Europe or North America. For another, a wide variety of serving personnel, at all ranks and from very diverse professional traditions, are required by a process of Alliance or ad hoc roulement to follow each other in often extraordinarily difficult deployment conditions of political, ethnic, legal, religious and social sensitivity. In such settings, military personnel who lack a working, educated awareness of these things put far too much at risk for the international community. “I am just a simple soldier” is an unacceptable self-descriptor in the age of the Strategic Corporal.

Traditions of bravery, leadership and training remain necessary but are no longer sufficient to achieve success, to avoid failure or – most telling perhaps – to avoid even the appearance of failure. As Michael Howard reminds us, in many situations, courage, tradition, procedures and disci-

pline will all be important but ‘only good sense and mature judgement can save [service personnel] from making disastrous mistakes’. And that is the business of education in the profession of arms: good sense and maturity are not aspects of human behaviour that can be trained, learned by heart, repeated as a sequence of exercises, or acquired by becoming proficient with a piece of equipment. They are the consequence of education and experience. However, neither can be assumed to be the *automatic* consequence. For example, the Ugandan tyrant, Idi Amin, was trained and educated at Sandhurst – even in the darkest years of his regime he would wax nostalgically about his time there – but that experience was clearly irrelevant as he became corrupted by power, or earlier, more powerful personality traits came to the fore. This might be an extreme example but it serves to remind military organizations not to assume that the recipient of professional development has, in fact, developed professionally. Such organizations therefore need a discriminating capacity to weed out those who fail the ‘good sense and maturity’ test.

Ever since the Prussians created the modern form of general staff training, the expectation has been that staff and war colleges carry the responsibility to inculcate, exercise and test these important attributes

in a military setting, so far as is possible in a one- or two-year course. This has led to the usually well-managed tension between two different impulses, both of which are necessary. This is nicely encapsulated in the phrase used as the title of John P Lovell’s book, *Neither Athens or Sparta*.¹ In Table 1, the sets of contrasts are very broad brush but make the point that military education which consists of only one side of the matrix is likely to produce outcomes for military leadership that are neither flexible nor tough enough to endure the challenges facing nation states - in an international system with an unknowable but certainly dangerous future.²

Donald Rumsfeld, in one of his more speculative moods, provides an interesting template for taking this further. During a news conference in February 2002, stimulated by a reporter’s question, he famously mused:

Athenian qualities	Spartan qualities
Learning and high culture	Personal austerity and glory
Creative thought and debate	Discipline in everything
Liberal arts, especially philosophy	Science and technology
Cross cultural awareness	Patriotism
Post-heroic	Heroic
Challenged by 9/11	Produces 9/11

Table 1: A Classical Contrast in Strategic Style

Dr. Peter Foot, Professor Emeritus Royal Military College of Canada is Director of Academics, Canadian Forces College, Toronto, on secondment from Defence Studies Department, King’s College London at JSCSC Shrivenham. This article is a reflective text version of a Presentation given at the 1st Annual Baltic Conference on Defence, Baltic Defence College, Tartu, Estonia.



*Reports that say that something hasn't happened are always interesting to me, because as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns — the ones we don't know we don't know.*³

These three categories of knowing can be cross-referenced against the Athens/Sparta matrix. The Spartan practice of training remains admirably suited to dealing with the known knowns – training relates directly to the known, the rehearsed and predictable. The known unknowns – and much of the Cold War nuclear thinking on both sides was patterned by these – require an automaticity of response tempered by an awareness of apocalyptic outcomes. Hence the Athens/

Sparta mix of that period. What 9/11 made more clear than any single act is that the global system remains less fundamentally challenged by known knowns or unknown knowns than it is by Rumsfeld's third category. Unknown unknowns occur when challenges come

from entirely outside ones own value system, like a leaping river salmon being gobbled by a wading bear. Insofar as these can be anticipated or dissuaded in advance - or, if these fail, endured and survived – confronting them is likely to be most successfully done by those with the widest, most inclusive set of sensitivities. Appeals to patriotism may be needed, technology might assist, and confidence in a particular system could be justified – but if survival is the issue, then all options will be retained. This will not necessarily be best done by states that instinctively embrace the violent options of retaliation, seemingly to the exclusion of others.

Staff and war colleges cannot carry out their national and alliance functions if their course design and delivery methods, and student assessment systems, do not reflect

these considerations.⁴ In a theoretically ordered world, national authorities have the clarity of concept, policy and decision to best serve the long run needs of the state. Direction comes from the top. Actually, in the real world of PME in most countries, the designated national authorities tend to be consumed by the pressure of the current budgetary crisis, bureaucratic inertia, advancement or rivalry, as well as remoteness from larger foreign policy questions – or they become the temporary plaything of large egos peddling a particular enthusiasm to the marginalization of much else. Similarly, individual Services in most places have yet to be trusted wholeheartedly with Joint concepts and practice as to be relied upon not to suggest training and education priorities that benefit one or other of the fighting arms. So, although there must be top down influence in order to keep

some sense of accountability, there is also a need for national authorities to leave a great deal to those institutions of the state that have the expertise to deliver PME – and which exist for that task.

The most important elements of Table 2 are the appointment of the right staff

and student assessment. It is here that the emphasis shifts from inputs to maximizing and ensuring high quality outputs. All kinds of good ideas can be contained in directives to improve a course for such-and-such reasons but this carries no guarantee that the desired outcome can be achieved in the way envisaged. Large efforts might be expended to ensure professional 'relevance' of course content and international comparability. Money can be invested on the latest war gaming and simulation methods. But staff calibre and student assessment are central to everything. A superb course badly delivered is a less-than mediocre option. Students, even on a poorly designed course, will perform better for Directing Staff who are clearly well educated, broadly experienced and good leaders than for staff selected on other, narrower criteria, such as the most recent operational expe-

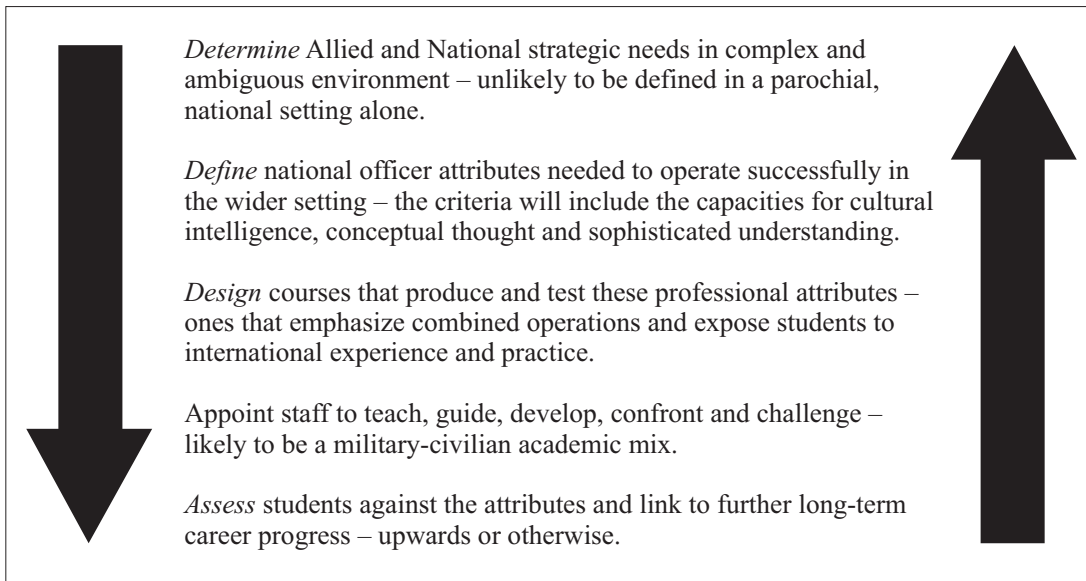


Table 2: Design, Delivery and Assessment Flows in PME

rience. Students respond best to academics who are similarly not too narrowly focussed, have good, general teaching skills and who, where possible, develop their careers within the expectations normal to a university. It is self-defeating to have, as is more common than admitted, a selection process for the very best mid-career officers to attend war and staff colleges but equip those institutions with personnel who are not necessarily good products of the staff college and university systems.

Outputs need to be evaluated and tracked over time. There are many techniques for doing this - two that are enduring need particular attention if 'quality' is to be 'assured'. The first is the ongoing cooperative partnership between directing staff and academic faculty in assessing the professional and intellectual potential of each of the students on course. Taken in aggregate, the results derived from this are the surest guide about the extent that the course is fulfilling its mandate and intent in the national interest. The point of this assessment partnership is that neither element has a monopoly on truth. It is the way the professional assessment of the officer *is coupled with* the evaluation of conceptual and analytical skills that provides the most reliable predictor of effectiveness - as a senior staff member within a major command, or actual performance on operations in conditions of considerable military stress, demanding leadership skills of a high order. Where that ability mix is not apparent then, regardless of the process of earlier selection by the parent Service, the career managers and appointing system need to be informed so as to minimise risk. Students so evaluated can then be channelled into the path that ensures the very best from them for the rest of their careers.

Both senior staff work and leadership in the field need to be underpinned by an assured ability to apply sophisticated political, social, legal, religious and historical discernment within allied and national rules of engagement. One implication of this is that staff and war colleges need to avoid the siren call of 'relevance' - where, as is too frequently the case, this is interpreted narrowly and applied only over the shorter-term elements of an officer's subsequent career. For that reason, the second quality assurance mechanism particularly helpful over time is the regular sampling of key officers' progress following graduation. Asking both the former student - at intervals of, say, every 5 years about the retrospective utility of the course - and sampling those s/he works for about skills and abilities to meet the higher command and staff demands encountered since graduation, enables the college to track the extent to which the various course components are seen to be useful of the longer term. Incidentally, it is with this kind of upward flowing information that staff colleges can be particularly use-

ful to higher authorities by showing how curricula, or emphases within them, remain 'relevant' or require change - as defined by the users of the courses and the 'customers' of those courses. Organizations outside that group are rarely competent to give such reliable reassurance or indications of direction and necessary change.

Such a set of suggestions about PME in the context of transformational pressures rests on a wealth of diverse experience. However, precisely because the biggest challenges may be the 'unknown unknowns', it would be illogical to suggest that other methods and structures may not have to be adapted in due course. After all, as we look forward, society *as a whole* maybe at risk. Counter-terrorism, homeland security and national resilience can only be achieved co-operatively and internationally. Defending and strengthening societies is obviously to go well beyond just the military, requiring the actual practice of 'joined-up' government as a minimum. As part of that, military institutions need to show modesty as to their contributions. This will be a challenge to those who find the Athenian outlook uncongenial. Conversely, civil society may itself have to become more Spartan in its expectations. It is not at all clear that democracies are ready to recognise this or have leaderships able to share that recognition within consumerist populations, not least because the media setting places ratings and profit above anything else. Nor is it clear that developing an Armageddon constituency would be other than counterproductive.

Being optimistic in that setting is perhaps always going to be hard. Sparta, after all, does defeat Athens in the end - because it finds a substantial external ally that enables it to be decisive in the confrontation. The task for PME is to help provide government and people with the best chance to avoid an Athenian fate. That, if it can be managed, would be the most worthwhile 'transformation' PME can achieve. ❁

The views expressed are those of the author and do not necessarily reflect the views of the Institute or its members.

Notes

¹ John P Lovell, *Neither Athens Nor Sparta: The American Service Academies in Transition*, Bloomington: Indiana University Press, 1979.

² For a longer discussion of these themes, see Peter Foot, 'Military Education and the Transformation of the Canadian Forces', *Canadian Military Journal*, Vol 7, No 1, Spring 2006, also available at http://www.journal.forces.gc.ca/engraph/Vol7/no1/04-Trans2_e.asp

³ US Department of Defense, news briefing, Feb. 12, 2002.

⁴ The author is grateful for discussions with, and suggestions by, academic and military colleagues at the UK's Joint Services Command and Staff College in developing the ideas and suggestion in this and the next paragraph.

THE BURNING HEART OF AFRICA – CONGO AND THE CENTRAL AFRICAN WARS

by Sunil Ram

The civil war ebbed and flowed around a small group of villages and hamlets in the eastern part of southern Kasai-Oriental province. This area for a brief time in the late 1990s and early 2000s was immune to the conflict as these small communities had been able to use their local mineral wealth in the form of rough diamonds to keep the various warring factions away and maintain some stability by being able to use surplus diamond monies to buy and import needed goods. However, as more people came to know about this enterprise, the amount of diamonds being sold became greater- one of the leader's of the community needed outside help to sell his community's diamonds legitimately on the international market. This project did begin, and the hopes and survival of thousands of people lay in its success. Sadly, like so many efforts of this kind, an unidentified warring faction heard about one of these large diamond shipments, it was intercepted and all those involved were killed. Rebels soon overran the villages and it is unknown what happened to the people.¹ This is the brutal reality of the brushfire war in central Africa.

Even after Congo's (what is now called Democratic Republic of Congo (DRC) and had been called Zaire) independence from Belgium in 1960, there was little relief for the people at large. Independence led to a civil war that eventually left the dictator Mobutu Sese Seko (Joseph Mobutu) in power. A self-professed supporter of America and the West, Mobutu's corrupt and brutal regime ruled Zaire

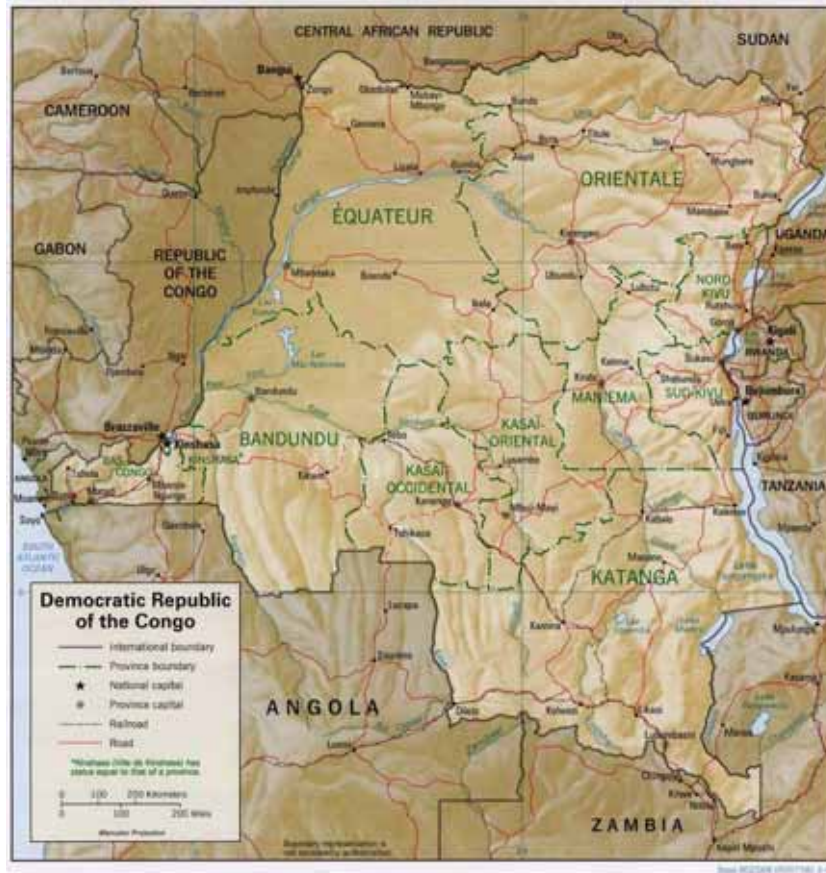
for the next thirty-two years. In the post-Cold War era, Mobutu slowly lost the support of the West, partly due to incompetent and corrupt leadership (towards the end of Mobutu's autocratic rule the infrastructure of Zaire had almost collapsed, the only means of viable communications, trade and transport through the vast central African country

was up and down the Congo River in boats, while at the same time Mobutu lived in palaces with solid gold taps), partly due to impact of the genocidal war in Rwanda, and partly due to western greed for control over Zaire's mineral wealth. Mobutu was eventually forced to flee in 1997 after another U.S.-backed rebel leader, Laurent Kabila, destroyed much of Zaire's military. Kabila, very quickly lost American support and by 1998 the DRC had collapsed yet again into civil war.

The civil war that drove out Mobutu and subsequently reignited almost immediately after the rebel victory has some of its roots in the 1993-4

genocide in Rwanda. Rwanda's genocidal war spilled over the borders of Zaire as nearly one million Hutus fled Rwanda,² including members of the Interahamwe militia that had begun the genocide against the Tutsi minority, into Zaire in an effort to escape Tutsi retribution for the genocide. Laurent Kabila had supported the genocide by first sheltering those who had committed the atrocities, but also by incorporating them into his rebel forces that were fighting the government forces of Mobutu.

Moreover, in the wake of the genocide, Kabila tried to cause the collapse of the Tutsi-led Rwandan government through periodic military incursions into Rwanda. The Rwandan government played into Kabila's hands by not



Democratic Republic of the Congo

Adjunct Prof. Sunil Ram teaches military history, land warfare and tactics at American Military University in West Virginia. He has operated in the DRC and other parts of Africa as a military advisor and is an expert on the diamond trade.

addressing its own internal ethnic problems, which had led to yet another mass exodus of refugees into Zaire, but also by sending its own forces into Zaire in pursuit of the Hutu refugees and harassing or killing those who tried to return to Rwanda after the civil war broke out in Zaire in 1994.

Estimates run as high as million refugees who were in the camps in Zaire, of which some 200,000 still remain unaccounted for. Many Hutus were forced by the Interahamwe to stay in the camps and not return to Rwanda, this in effect created a hiding place for those who had committed the genocide, but it also started to create tension inside Zaire with the local Hutu and Tutsi population, which resulted in a rebellion by the Tutsi Banyamulenge people in eastern Zaire in October 1996.

US officials met with Laurent Kabila to offer support for his force (the Alliance of Democratic Forces for the Liberation of Congo-Zaire or AFDL-CZ) in 1996. By 1996 America was providing covert US military support in the form of Special Forces and various intelligence agents and intelligence assets to support and aid Kabila's forces mili-

tary efforts to oust America's former ally Mobutu. By December of 1996 over 100 armed US troops plus US sponsored mercenaries were advising and fighting alongside rebel forces.³ It is clear that these American troops were fully aware of the murder and attacks against the Hutu refugees and there is even evidence that they participated in these attacks.⁴ As one reported incident notes:

Towards the end of 1996, U.S. spy satellites were attempting to ascertain how many refugees escaped into the jungle by locating fires at night and canvas tarpaulins during the day. Strangely, every time an encampment was discovered by space based imagery, Rwanda and Zaire rebel forces attacked the sites. This was the case in late February 1997, when 160,000 mainly Hutu refugees were spotted and then attacked in a swampy area known as Tingi Tingi. There

was never an adequate accounting by the Pentagon and U.S. intelligence agencies of the scope of the intelligence provided to the RPF [Rwandan Patriotic Front] and the AFDL-CZ.⁵

In the bizarre *realpolitik* of central Africa, the reality of American support for two opposing sides (Kabila and his AFDL-CZ and the RPF) was the issue of control of the strategic minerals inside Zaire. Aside from the massive amounts of gold, copper, tin and diamonds, American industry required the rare mineral columbite-tantalite, more commonly known as coltan, which is critical for computer and com-

munications equipment components. When refined, coltan becomes metallic tantalum, a heat-resistant powder that can hold a high electrical charge. To put this in context, no cell phone will work without tantalum and 80 percent of the World's known reserves are in the eastern Congo region.⁶ Obviously, other electronics manufacturing nations like Japan also have a strategic interest in the uninterrupted flow of coltan.

The major US military, intelligence and material support,

in conjunction with the withdrawal of support for the Mobutu regime in Kinshasa let to victory for Kabila's forces in late 1997. However, only a few months after consolidating his power, Kabila made a strategic decision to get rid of his now troublesome Rwandan Hutu allies who were causing unrest amongst the native Hutus and Tutsis in the eastern part of the newly named DRC. Kabila himself proved to be even more dictatorial than Mobutu, within his first year of power he had in effect concentrated all power in his own hands and anyone who opposed him was imprisoned or killed. This started to affect the US regional mining interests.

The Rwandan's who were being forced out (many of whom were Interahamwe militia) started a rebellion in the



MONUC PHOTO/CHRISTOPHE BOULIERAC

UN peacekeepers from Pakistan arrive in Che, DRC with reinforcements of ammunition to secure the area where refugees have amassed after fleeing their towns following the brutal militia fighting, January 2005



East. Seeing an opportunity to get rid of Kabila, the US and Kabila's former Rwandan and Ugandan allies (who saw an opportunity to grab the coltan deposits and other mineral riches) supported the rebels. However, the rebellion almost immediately became an international affair with Angola, Chad, Libya, Namibia, Sudan and Zimbabwe, supporting Kabila and Rwanda, Uganda, and Burundi supporting the rebels.

It soon became public knowledge that the US had forces in the region. A twenty man US Army Rwanda Interagency Assessment Team (RIAT) was in Rwanda at the time of the second invasion. As it turned out this team was in fact a Joint Combined Exchange Training (JCET) unit that had been deployed to Rwanda to order to "help" the Rwandans "defeat ex-FAR (Rwandan Armed Forces) and Interhamwe" forces.⁷ Rwandans were being trained in the US as well as receiving training in Rwanda in "camouflage techniques, small-unit movement, troop-leading procedures, soldier-team development, rappelling, mountaineering, marksmanship, weapon maintenance and day and night navigation"⁸ by US Special Forces troops. A twist to this story is that US military support through both the Enhanced International Military Education and Training (E-IMET) and JCET programs was being provided to both sides of the conflict. Moreover, through covert operations various Private Military Companies provided troops for the conflict.

The various African countries involved in the war had a mishmash of security, territorial, political and economic reasons for joining the side they did. Uganda was supporting the Tutsis of Rwanda who have been its long-time allies. Uganda was also concerned with security at its own borders with the DRC and also because Ugandan rebels, supported by Sudan, have been fighting in the west of the country and have bases in the DRC. Rwanda and Burundi's core reason was security in terms of eliminating the remnants of extremist Hutus groups. Rwanda also wanted payback on Kabila for his betrayal of their earlier support during the ousting of Mobutu. Also all three countries can and have harvested the riches of the region to fill their own coffers. By 1999, according to the UN, eighty percent of Rwanda's military budget was being generated by the sale of stolen mineral resources from the DRC. Under the now crazed leadership of Robert Mugabe, Zimbabwe also covets the DRC's natural resources to offset the economic chaos inside the almost bankrupt Zimbabwe. Angola has supported the Kabila regime because it has allowed Angolan forces to base inside the DRC in their pursuit of UNITA rebels. Chad, Libya, and Namibia are more concerned about the stability of central Africa and since Kabila was the leader this is where

their support fell, but it is also an indirect way to oppose the US and other western interests in the region.

Also due to the nature of the rape of the DRC's natural resources organized crime has become deeply involved in the illicit diamond market. Far too much ink has been spilled over the issue of "blood" or "conflict" diamonds, which represent less than a few percentage points of the global, rough diamond industry. In 2000-1 some twenty percent of the global rough diamond trade was illicit, of that only 12 to 20 percent are conflict diamonds, which means that conflict diamonds only make up 2.5 to 4 percent of the global diamond trade.⁹ What should be of greater concern is the trade in illicit rough and cut diamonds that is controlled by transnational criminal entities, as many of them now have relationships with international terrorist organizations.

Laurent Kabila was assassinated in 2001, at which point his son Joseph took over the reigns of power. A solid truce was not achieved until April of 2003, partly due to the fact that many of the belligerent parties simply could not afford the military expenditures for the war and partly due to western intervention. France was willing to send a small contingent of peacekeepers to the western part of Congo, but this was more to do with keeping trade relations going with the DRC and French corporate interest. By March 2005, UN peacekeeping forces numbered over 16,000 troops from over 100 countries. However, the UN has not really been able to extend central governmental control over the eastern part of the DRC.

Since 2003, there have been periodic clashes, and the region remains highly volatile, as both Rwanda and Uganda have now "officially" lost control of the rich resources of the eastern DRC and have indicated that using security as an excuse they will go back to war. Even though Rwandan forces withdrew in 2002, personnel were left behind to maintain and control the key mines that had been supplying product to finance the Rwandan military. Also western industrial interests in both North America and Western Europe need an uninterrupted flow of coltan, plus the Europeans have major investments in the DRC for its other natural resources. Therefore, there is still fuel for this brushfire war as all the parties concerned, national governments, rebels, and transnational criminal organizations all have a stake in the vast riches that can be pillaged from the DRC.

The West quietly ignored the events of late 2004. The war had broken out again as Rwanda again invaded the eastern part of the DRC. Ostensibly the reason was the further pursuit of the perpetrators of the 1994 genocide, but this claim now rings hollow as the Rwandan government had years in which to resolve this issue when it had occupied the eastern part of the DRC. According to reports from the

region rival factions of the DRC's military had joined the Rwandans and the invasion was all about stealing more of the mineral wealth. Over the years, there have been numerous reports, including ones from the International Crisis Group, Global Witness, Amnesty International, and Human Rights Watch that have clearly shown the Rwandan army (the same one trained and supported by the US) has in fact been committing atrocities throughout the region. Tens of thousand of captured people have been pushed into slave labour to mine coltan and diamonds for the Rwandan army, while others have been massacred, mutilated, raped, or driven from their homes. The problem is the West still sees Rwanda as the victim of genocide and has chosen to ignore the reality that the victims have now become the killers. The real objective of the 2004 invasion was to eliminate rebel militias that had been threatening the Rwandan controlled mining areas. The West's insatiable need for coltan has also allowed the thinly veiled genocide excuse to be used indiscriminately by the Rwandans and given Western governments and industry a straw man to put up when questioned on the morality of the support for Rwanda.

Central Africa is a nexus of private and public interests that choose to do little to stop the war, but by playing the realpolitik it has also allowed in transnational crime that has been feeding the growing global threat from terrorism. The heart of Africa is burning yet again in another brushfire war that may again draw many of the surrounding countries into conflict, further exacerbating an already volatile conflict.

On 1 March 2005, a force of over 200 Pakistani UN peacekeeping troops fought with the Lendu tribal militia forces in the DRC's northeastern province of Ituri.¹⁰ Two peacekeepers were wounded while some 50 to 60 militiamen were killed. This incident followed an ambush on February 25 by Lendu militia that killed nine Bangladeshi

peacekeepers. The militia is part of Lendu tribal group's Nationalist and Integrationist Front that has been launching attacks for several months against villages of the rival Hema tribe. This tribal conflict has been going on for years, but is constantly being driven by the larger regional war. The central African conflict continues on in 2006 even with a massive UN peacekeeping presence.✳

The views expressed are those of the author and do not necessarily reflect the views of the Institute or its members.

Notes

¹ The author arranged this deal with parties in Antwerp and London. All contact was lost during the summer of 2000 with my Congolese friends.

² Background note-Rwanda, Bureau of African Affairs, US Department of State, Jan 2005.

³ Testimony and Statement of Wayne Madsen, author of "Genocide and Covert Operations in Africa 1993-1999" — "Suffering and Despair: Humanitarian Crisis in the Congo," Hearing before the Subcommittee on International Operations and Human Rights, of the Committee on International Relations House of Representatives, One Hundred Seventh Congress, First Session, May 17, 2001, Serial No. 107-16

⁴ Ibid.

⁵ Ibid.

⁶ Coltan, short for Columbite-tantalite is a metallic ore comprised of Niobium and Tantalum. Eighty percent of the known reserves can be found mainly in the eastern regions of the DRC. When refined, coltan becomes a heat resistant powder, metallic tantalum, which has unique properties for storing electrical charge. Of the 525 tons of tantalum used in the USA in 1998, 60% was used in tantalum capacitors, which makes it a vital component in the manufacture of capacitors that control current flow in cell phone circuit boards. During the tech boom, Coltan prices shot up to from US\$65 per kilogram to US\$600 per kilogram at one point. By 2004 prices hovered around US\$100 per kilogram. This provides a huge cash cow for the various factions trying to dominate the region.

⁷ Lynne Duke, "Africans Use Training in Unexpected Ways," *The Washington Post*, 14 July 1998, A10

⁸ Ibid.

⁹ Author's notes from a presentation by DeBeers at the 2000 World Diamond Conference, Toronto, Canada. Also see Rebecca Tailby "The Illicit Market in Diamonds," Trends and Issues in Crime and Criminal Justice, No. 218, Australian Institute of Criminology, Jan 2002.

¹⁰ The Nationalist and Integrationist Front (FNI), a Lendu paramilitary organization was created in 2003 and is based in Bunia, Ituri Province. Since 1999, the conflict between the Lendu and Hema militias has killed more than 50,000 people. As of March 2005, more than 70,000 people are now refugees.

LETTER TO THE EDITOR

The SITREP article by Cdr David Steele on *The Reality of Social Class in the Modern Navy* interested me. Wrapped up in sociological jargon he makes some valid points especially about the need for senior officers to adequately guide, train and mentor their juniors in all aspects of their professional duties, including 'social' adaptation.

However, I do not like his continued use of the expression 'class structure.' Cdr Steele may have forgotten that the Mainguy Commission examined this phenomenon and other aspects of service of the post-war RCN, didn't like what it found and directed change. I think it is fair to say that during and after World War II when ward-

room rank was opened to a much more broadly based cross section of Canadians much of the pre-war social distinction between the wardroom and the lower deck started to fall away. The difference later became apparent in part by education, training, leadership development and role playing. Ships are tight and intimate spaces in which to work. A social structure develops from the captain down to wardroom officers, to chief and petty officers down to the most junior sailor. Everyone has a place in this social structure and usually knows where the lines are drawn. I would not term this an issue of 'social class' *per se* as much as I would call it maintenance of good order and discipline in a service

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THE PROMISE AND PERIL OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

By Dr. Paul Mitchell

Perhaps the most remarkable aspect of the rise of modern communications technology is the way in which most people have incorporated it into their every day life so effortlessly. All the more remarkable given the fact that things like e-mail, SMS, wireless networks, and the ubiquitous internet had virtually no role in the life of anyone even ten years ago. Perhaps in no other time in history has such a technology had such a rapid and widespread effect on our society. But what exactly does it all mean?

The implications of this rapid development are not only far-reaching, but also reveal conflicting tensions. While some claim the power of ICT to unite humanity in authentic forms of democracy, others point to the role such technologies may play in centralising the authority of the state in an Orwellian sense. Still others point the possibility of anarchy erupting due to the disruptive effects such technology may have. The question is whether any single explanation can capture the complexity of this social development.

Considered together, these contrary messages all point to the social uncertainty that surrounds modern life. To wit, all are true to a certain extent and none completely correct. Essentially, ICT exhibits the promise and peril of modern existence in its ability to both unite and fragment, to centralise power even while providing opportunities for those seeking to challenge authority.

Radical new politics?

The initial development of ICT in the form of both electronic mail and the World Wide Web supposedly heralded a radical new politics in which individuals could break the stagnant bonds of traditional politics. With new sources of information, and linked together through a ubiquitous medium of electronic communication, novel constellations of political interest could form, even spontaneously. Political discourse and choice would be liberated from the pre-determined structure imposed by modern party politics. ICT thus would be inherently democratising in its ability to free the search for and dissemination of information from the bonds of traditional sources of authority.

The poster child for this development was the spontaneous emergence of informal groups committed to challenging the supposed effects of globalisation. What was novel

in this development was the wide range of interests that spanned the participating groups - from the concerns of Western agricultural communities, to those troubled by the industrialised destruction of the environment, or those who sought to challenge the dominance of global corporations. The agendas of these groups had oft been denied an opportunity to be heard within traditional representative democracy, dismissed by the derogatory label of “special interest”. But ICT allowed these groups to both propagate their message and attract followers. ICT also permitted the organization of mass protests, such as those that took place in Seattle, Genoa, and Quebec City against the “faceless” and unaccountable international organizations that, they argued, threatened to undermine democracy.

The centralization of power

Nevertheless, the same technologies that permit groups of disaffected and disenfranchised individuals to organize and propagate their demands have also permitted just the opposite effect — the centralization of power in both the organs of the state and in corporations. ICT has permitted the realisation of Francis Bacon’s axiom on knowledge and power in totally unprecedented fashions. The collection of consumer data by corporations has enabled specialized niche marketing that confronts us daily as we log onto our favourite web sites and surf for information.

More seriously, the computing power afforded by increasingly sophisticated databases threatens to lead to a surveillance society. Such power was recently demonstrated in the search for the terrorists who attacked the London underground in the summer of 2005. Face recognition technology, combined with smart cards embedded in a variety of devices from public transit cards, cell phones, and even private vehicles, suggests not the development of greater democracy and freedom, but rather its reverse in the nightmarish manner dreamt by Orwell nearly 60 years ago.

Digital anarchy

Even as groups who seek to establish greater communitarian efforts compete with the centralized goals of the state and corporations, ICT has also permitted the rise of those that would deny both and seek to impose a situation of anarchy on society, whether civil or state. Hackers and other on-line anarchists seek to undermine authority and control through the infiltration and disruption of secure systems. In this they use the tools of modern society to

Dr. Paul T. Mitchell, of the Canadian Forces College, is a Visiting Senior Fellow with the Institute of Defence and Strategic Studies, Nanyang Technological University, Singapore. This article previously appeared in IDSS Commentaries.

challenge its technological foundations. In some cases, the periodic waves of electronic viruses, Trojan horses, and worms attacking the sinews of electronic society reflect the efforts of those opposed to the omniscient states and corporations described above.

However, “Denial of Service” attacks shut down not only electronic commerce, but also gateways to information, and more worrisome, the provision of a whole range of services increasingly dependant on the electronic routes of the internet. “Critical Infrastructure” in terms of electrical grids, power stations, water systems, logistical services, and transportation control systems are all increasingly dependant for their continued functioning on communications carried over the internet. In this manner, hackers threaten not only the state and corporations, but also society itself through their anarchical attacks on services.

ICT and the military

If one looks to the realm of the military, the impact of ICT has been as profound.—Western militaries, the US armed forces in particular, unveiled novel forms of warfare throughout the 1990s involving the use of ICT in the form of “network centric warfare”. In this, they have attempted to replicate the power of the civilian “web” in a military context, permitting the establishment of “information dominance”. The force with superior information may decide faster and thus move faster than any of its opponents, leading to “Full Spectrum Dominance” on the battlefield. The result is quicker decisions and fewer casualties, both friendly and enemy. This was amply demonstrated in several conflicts throughout the 1990s where the speed and enormity

of operations conducted by the US and its partners virtually paralysed opposing armed forces. The term “Shock and Awe” seemed to capture well the impact that could be created by these technologies in conventional warfare.

However, just as democratising technology has been challenged by centralised databases -and both of these by digital anarchists - the military has found that emerging insurgent forces have adopted asymmetrical tactics, often exploiting the same ICT both to propagate their message (in a similar fashion to the democratists, but with decidedly different aims) as well as raise funds and adherents.

Using disinformation as their source of power, these groups are often able to “shape the battlefield” by seizing the initiative and forcing conventional militaries to react to their agenda. In fact, small, decentralized, non-hierarchical organizations may enjoy superior advantages in using the opportunities provided by such technologies. Those who have no need for a rigid command structure and all the social restrictions such hierarchies impose on human agency can exploit the freedom provided through ICT to a much greater degree.

Thus we come full circle in this story about the enabling power of ICT. It starts with groups seeking to reintroduce democracy to disenfranchised citizens and ends with admittedly disenfranchised groups that have no commitment to the universal and humanistic goals of westernised society. The problem is that ICT enables human action without regard to whether the actor seeks greater democracy, safer military operations, or widespread chaos. Herein lies the promise and peril such technologies bring with them.♣

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SO CANADA NEEDS TANKS AFTER ALL!

by Colonel (Ret'd) Chris Corrigan

So finally the truth has been admitted, Canada still needs tanks and has sent fifteen Leopards C2 tanks to Kandahar, Afghanistan to provide additional protection to convoys that have been subject to ambushes and suicide attacks by the Taliban.

All this after statements made during recent years by the former Prime Minister Jean Chrétien, Former Liberal Defence Minister John McCallum and the current Chief of Defence Staff, when he was Commander of the Army, that tanks were a legacy of the Cold War, cumbersome behemoths that could not be transported speedily to the future distant battlefield, and obsolete in the future new era of modern warfare that sacrifices armoured protection, firepower and shock-action for mobility on the low to mid-intensity battlefield. And in so doing removes an essential and historically proven key component of the combat team trinity of infantry, artillery and armour.

It appears that future warfare, as predicted by many, has been trumped by the realities of past and present warfare. Interesting that other nations such as the US and the UK found tanks during the invasion of Iraq and in the past three years indispensable in counter-insurgency operations. What is it that Canadians know about the modern battlefield that others don't and why have other nations not subscribed to this unique Canadian viewpoint? In fact US Army field reports from Iraq cite the extreme necessity for tanks to be present with and to protect and provide immediate direct fire support for the infantry in the close urban fighting that has been raging in Iraq. In Mogadishu, Somalia the US Marines arrived with tanks – sometimes referred to as conducting “peacekeeping with an attitude” – yet when replaced by US Army Rangers, tanks were removed as the then Secretary of Defense Les Aspin deemed them too aggressive for a peace support mission. This absence of US Army tanks in close support of the Rangers was a key factor in the deaths of eighteen Rangers in what is known as the Black Hawk Down incident of October 3 and 4, 1993.

Canada has been very capricious in accepting the need for the tank. Every generation of the Canadian army since the first use of the tank 90 years ago on September 15th 1916 in the Battle of the Somme, has had to articulate the immutable, steadfast, necessity for having and maintaining ar-

moured regiments equipped with tracked armoured fighting vehicles. Canadian tank units were formed too late to participate in the First World War. After the “war to end all wars”, Canada and Canadians neglected its military and the army languished and as a result was not prepared for the next war a mere twenty-one years later.

The audacious yet ill prepared disastrous Dieppe beach landing raid of August 19, 1942, that resulted in the tanks of the Calgary Tank Regiment arriving on the beach fifteen minutes after the infantry had already been decimated in a three-sided killing zone, confirmed that the infantry need tanks in intimate close support. Had it not been for the three years of training and preparation in England for the invasion of Italy in July 1943 and four years for the invasion of Normandy in June 1944, the pre-war neglect of the army would have been even more apparent. Even with three years preparation in the UK, the standard of infantry, armour and artillery training and cooperation achieved was at very best – basic. By war-end Canada had twenty two armoured regiments.

After the Second World War the need for armour on the future battlefield was self evident to all who had served in the army. As a result Canada's army fared better, equipped with the then latest Centurion tanks. Canada's brigade group assigned to NATO's Northern Army Group in northern West Germany was described by the British as the “Rolls Royce Brigade”...a mini-division with divisional troops integral to the Brigade. However in the late sixties as the brigade group was moved south to Baden-Baden and Lahr to be part of Central Army Group, the Centurions became obsolete and the Canadian government announced in the early seventies that it would not replace the tank in 1976 – and this at the height of the Cold War with thousands of Warsaw Pact tanks poised along the inner-German border. Before Canada killed its tank capability, talks between Germany's Chancellor Helmut Schmidt and Prime Minister Trudeau resulted in Canada acquiring German-built Leopard tanks to resolve the imbalance of trade between the two countries. Resolving the imbalance in trade, not the government's need to maintain an armoured fighting capability, resulted in this necessary capability being reinvigorated.

Fast forward to the Nineties and the fall of the Warsaw Pact, the resultant peace dividend, and our withdrawal from Europe which saw a brigade being removed from the order of battle not because the World was safer but because the

Colonel (retired) Chris Corrigan CD, MA, a ‘Cavalryman’ and ‘Tanker’ for thirty-five years, is the Executive Director of the Royal Canadian Military Institute, a defence analyst, former commander of Canadian troops in Bosnia and former commander of Canada's tank regiment in Germany.

military had to be cut twenty-five percent in the fight against the national debt. Rather than return west across the Atlantic, much of this brigade ended up going east to serve in Croatia and Bosnia up until 2003. The tanks returned from Europe to Canada, were upgraded and reduced in numbers. The Kosovo battle group commitment, 2000-2001, saw the need for tanks and contrary to Prime Minister Chrétien's statement that Canada did not have tanks in Kosovo, Canada had tanks there, albeit only five.

The McCallum-commissioned 2003 Advisory Committee on Administrative Efficiency, led him, in a speech to the Conference of Canadian Defence Associations on February 27, 2003, to question the need for tanks and soon after the military began to pursue the untested US-built Main Gun System (MGS), a small light wheeled armoured vehicle lacking the armour protection of the Leopard, and retrofitting the ADATS air defence system onto the eight wheeled light armoured vehicle chassis to become a tank destroyer/air defence multi-missions effect vehicle (MMEV). A decision factor against the tank was its lack of strategic mobility – that being it cannot be transported in any existing Canadian Forces transport plane. Neither can the MGS or MMEV. On October 29, 2003 Defence Minister John McCallum announced \$600 million for 66 new fighting vehicles meant to replace Canada's fleet of Leopard battle tanks. On September 22, 2005 Defence Minister Bill Graham announced \$750 million to develop the MMEV. The MMEV also remains untested and no countries have expressed an interest purchasing it.

Although our Leopards possess a state-of-the-art integrated fire control system of laser range finder, full night vision/fighting capability and a rapid firing 105mm gun firing armour-piercing rounds at 1,800 metres per seconds that can destroy targets at 2.5 kms, other weapon systems can provide direct fire.

Wheeled armoured vehicles *out of contact* with the enemy can move quicker around the battlefield on roads. However they lack the vital cross-country mobility of tanks especially in the sandy desert terrain of Afghanistan. When engaged in a firefight supporting dismounted infantry not on roads, the MGS/MMEV is limited to roads or terrain passable to wheels and in so doing risk being destroyed by enemy fires, especially rocket-propelled grenades (RPG) and they risk not keeping up with the dismounted infantry. In terms of size, presented side-on to the enemy, the LAV III at seven metres in length is only one metre shorter than the Leopard, yet is the same height. LAV IIIs/MGS/MMEV also lack the tank's armoured protection necessary for crew survivability and, most importantly, the psychological shock action and fear effect induced by the combination of speed, mobility, track noise and size found only with tanks. Just as infantry should not be alone on the battlefield, tanks should not be alone. Tanks are

not susceptible to RPGs but can be penetrated by anti-tank missiles, the likes of which have not yet appeared in Afghanistan.

In Iraq, a small number of US Abrams tanks have been penetrated by Russian made Kornet-E anti-tank missiles. Resultantly tanks need the close protection of the infantry to counter anti-tank missiles launched by enemy infantry. In close cooperation with the infantry, tanks, in intimate support to the infantry, save the lives of infantry and the synergistic effect of tanks and infantry fighting together as a team can turn a 'close run fight' into a win. In addition tanks provide the commander an excellent and highly responsive mobile reserve that can reach out and touch/destroy the enemy at a distance thereby making it less likely that the infantry close with the enemy and sustain casualties.

It would appear that with this latest deployment of the tank to Afghanistan, the operational need for the tank has been yet again confirmed. And that with the support of US C-17 heavy lift aircraft and the potential future Canadian purchase of C-17s, the decision to keep the tank will be driven by operational necessity rather than transport limitations.

Questions however remain. Firstly, how will our relatively light (light compared to the more heavily armoured 70-plus ton US Abrams and British Challenger tanks in Iraq) Leopard C2 tank with 20 tons less armour withstand antitank guided missiles? Secondly, is there the need for further upgrading of the protective armour? And lastly, if Canada needs tanks, will the tank replacement program that existed in the late eighties be resurrected to ensure that our Army is equipped with a modern generation of tank to meet the operational needs of the present and future battlefield? One is reminded of Winston Churchill's quote: "No matter how involved a commander may become in the elaboration of his own thoughts, *it is sometimes necessary to take the enemy into account.*" In our context, the enemy is the Taliban and the thoughts are the future equipping of the Army for the future battlefield. To reiterate, it appears that future warfare, as predicted by many, has been trumped by the realities of past and present warfare.

When engaging the enemy and supporting the infantry there is only one weapon system that has the necessary characteristics of a tank - a tank. The presence of Canadian tanks on the battlefield saves the lives of Canadian infantry. They are a necessary part of the combined arms team and the absence of any one part – infantry, armour or artillery- risks loss of life, mission success and invites defeat. Canada is relearning old immutable truths learned on past battlefields and at the cost of Canadian blood. The tank remains an enduring and indispensable capability of any military – now and into the future. ♣

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where commands often need to be instantly obeyed, especially in action.

This is not to say that the officer should not play sports with his/her sailors or have a drink together occasionally with a former fellow student from high school, for example. Officers marry non-commissioned personnel and both survive in the Service because they keep their professional and personal lives separate as much as they can. He is silent about fraternisation between officers and sailors of the opposite sex so perhaps this is not an issue.

All junior officers need to find their feet when they first join the Fleet. Their senior officers and chief and petty officers all have a role to help this process and, after all, self confidence and respect from juniors comes by doing one's job well, not by virtue of stripes on the sleeve. If Cdr Steele's thesis is indeed correct there is something in today's naval training that is not working. But to frame the issue in terms of "class structure" with all that phrase connotes is misleading, in my view.

Yours sincerely,
David B. Collins
LtCdr, RCNR (Retired)

Cdr (Ret'd) David Steele responds,

I've heard it said that the measure of the success of one's argument lies in the quality of the rebuttal, so I'm

honoured that Mr. Collins has taken the time to disagree with me in some respects. I also take it as proof positive that at least one person has actually read my article, for which I am also grateful.

Mr. Collins quite rightly raises an objection to the value-laden term "social class", as that terminology carries a lot of leftover baggage from a half century ago. From a social science perspective, however, I do believe that social class remains a relevant issue for the leadership of the CF to consider. More specifically, it is the issue of social class mobility that is the root of the concern.

In Canada, despite the popular mythology to the contrary, there remains an intact hierarchical social class system, although it has more to do with individual wealth, education, and occupational prestige than heredity, as had been the case in the past.

Since very few recruits seem to come from the wealthy, established, scions of our society, it is the middle class that seems to generate the bulk of our officer candidates, as well as many NCM recruits. It is precisely for this reason that many aspiring officers have difficulty separating themselves from their social peers, as they are required to do. ♣

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Perception and Cognition: Continued from page 4

their political constituencies. The objective is not merely to destroy the adversary militarily, but to engulf him in every dimension (diplomatically, politically, socially, through information, militarily, and economically), depriving him of freedom of movement and decision, and eventually of coherence and will. In this way, resistance and aggression are rendered impractical, and in effect, the outcomes of battles, campaigns, and wars will be decided before they begin. Our approach to Political Warfare should be updated and tailored to the realities of the 21st century and to the needs and interests of a capitalist democratic republic (the United States), and its allies.

The U.S. military today exploits advances in information technology to pursue "Information Operations" as a means of supporting military operations generally, and increasingly defines Information Operations in terms of competition for the domination of cyber-space. This is exactly wrong. Because the center of gravity in any war lies in the

cognitive domain, all operations (military and non-military) should support Information Operations (including all means of conveying information, not artificially limited to the narrow field of cyberspace). No actions of ours in the physical domain, and certainly none in cyberspace, will play a decisive role in influencing the actions of residents of Fallujah, or those like them in other lands and in future times. In order to do that, we must set out early to shape their perceptions by engaging broadly, continuously, and vigorously throughout the cognitive domain. We must not again allow an enemy to win by default. ♣

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