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THE CANADIAN ARMED FORCES REQUIREMENT TO EMPLOY AN ADVERSARIAL COGNITIVE ENGAGEMENT CAPABILITY

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Exercise Solo Flight

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EXERCISE *SOLO FLIGHT* – EXERCICE *SOLO FLIGHT*

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ADVERSARIAL COGNITIVE ENGAGEMENT CAPABILITY**

By Major Andrew Gault

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THE CANADIAN ARMED FORCES REQUIREMENT TO EMPLOY AN ADVERSARIAL COGNITIVE ENGAGEMENT CAPABILITY

As a modern military force, the Canadian Armed Forces (CAF) requires an adversarial psychological warfare capability to be employed in the tactical to operational level. This paper will prove the validity of the requirement by identifying the Adversarial Cognitive Engagement (ACE) gap in current capabilities required to counter the tactical to operational threat for deployed CAF operations.

The CAF has utilised various forms of propaganda and psychological engagement. Since the 1990's, the CAF has employed Mission Information Support Teams in the United Nations mission to Haiti, a limited Psychological Operations¹ (PSYOPS) element in the Former Yugoslavia missions, tactical PSYOPS elements in the mission to Afghanistan, and most recently PSYOPS staff supporting the coalition operation to defeat Da'esh in the Middle East.² As an Information Related Capability (IRC) coordinated by the Information Operations³ (Info Ops) staff function, CAF PSYOPS doctrine describes the aim of PSYOPS is to weaken the will of the enemy, reinforce friendly support and to gain the support of the uncommitted, through three categories of employment including strategic PSYOPS, crisis response PSYOPS and combat PSYOPS. The latter is the focus of this paper.

OPERATIONAL THREATS WITHIN THE INFORMATION ENVIRONMENT

Psychological warfare are the acts of engagement with intent to cause psychological drama to an adversary. This element of warfare has existed throughout the history of mankind at war. The role of a military force once engaged is to defeat the enemy through attrition and sufficient reduction in their will to fight. This fight takes place in what is now referred to as the

¹ PSYOPS is defined as planned psychological activities using methods of communications and other means directed to approved target audiences in order to influence, perceptions, attitudes and behaviour, affecting the achievement of political and military objectives.

² CAF personnel were embedded with the US forces in Operation INHERENT RESOLVE starting in 2016.

³ Info Ops is defined as coordinated information activities conducted in or through the information environment to create desired effects on the will, understanding and capability of individuals in support of command objectives.

Information Environment⁴ (IE), in which there are physical, virtual and cognitive dimensions. Information is conveyed through physical devices and virtual communications to individuals and groups utilising physical and virtual aspects of the IE in order affect the cognitive dimension.

Widely available, inexpensive communications systems and off the shelf bespoke electronic devices such as drones, in conjunction with widespread global access to the internet, have mitigated many of the advantages once held by the bilateral world powers of the East and the West. The ability to engage people, networks and linked systems in the IE is essentially without borders or boundaries. Smaller state and non-state groups have adapted rapidly to new technology to achieve their aims, moving current and future warfare to include a greater spectrum of operational environments, engaging Western countries that were previously untouchable.

Osam Hamdan of Hamas explained “George Washington was fighting the strongest military in the world, beyond all reason. That’s what we’re doing. Exactly.” Radical fundamentalist organisations such as Da’esh and Al Qaida have also become highly accomplished at recruiting men and women from all over the globe to support their respective cause. They are also successful at convincing or coercing people to conduct suicide attacks. Modern militaries must adapt to this new reality of conflict.

Cognitive engagement in the virtual dimension is growing exponentially with the creation and expansion of the World Wide Web and Internet realm. In particular, social media has expanded beyond merely a method of social interaction and is now often viewed a *literal battlefield* itself. As social media is comprised of a wide range of technologies, communication styles, physical and computer languages, as well as a multitude of beneficial, benign, and malign actors, it is helpful to view and model this environment as a complex adaptive system, with the potential to self-organize (Van Niekerk & Maharaj 2013). Canada’s adversaries also use virtual enablers to provide tactical communication, develop propaganda, and coordinate activities, all with readily available systems.

⁴ The IE is defined as the aggregate of individuals, organizations, and systems that collect, process, disseminate, or act on information.

EFFECTS IN THE COGNITIVE DIMENSION

Credibility is essential for PSYOPS engagements. If the intended Target Audience (TA) does not believe a message to be credible, the likelihood of that TA changing its behaviour is diminished. The overt credibility of a message delivered by the CAF in the IE is based on the CAF as an institution of the Government of Canada and a partner of various coalitions or alliances. This is essential for Strategic Communications⁵ (StratCom) and in messaging indigenous populations.

This is not necessarily the category of credibility that would best be employed on the adversary as they know who we are and what our narrative represents. The psychological effect of combat power on an enemy is well known and will remain an essential element to modern militaries. In a tactical to operational offensive engagement it is our ability to project combat power at the time and place of our choosing that provides the credibility of PSYOPS messaging. For example, in providing a message of surrender the enemy as a TA must *believe* that a surrendering is a possibility over certain injury or death. This links to the higher level of institutional credibility knowing that the CAF treats prisoners humanly, however it is the threat and application of effective combat power that caused the desired behaviour change.

In a battle against a peer or with a non-state actor, the leadership's ability to retain Command and Control (C2) and the capacity of the fighting force to maintain the will to fight that will determine the victor. The attrition of the adversary's morale to the point of annihilation of their will to fight should therefore be considered the essential element to a successful combat engagement. An enemy can be rendered completely ineffective if they have no ability to communicate, no remaining C2 and a spreading sense of hopelessness, such as the Argentinian forces defeat at the Falklands war. Cognitively exhausted forces lead to their defeat if they no longer believe or understand their cause, or if the willingness to fight is gone.

⁵ NATO's Strategic Communications Policy of 2009 defines Strategic Communications (StratCom) as the coordinated and appropriate use of NATO communications activities and capabilities – Public Diplomacy, PA, military PA, Information Operations and Psychological Operations, as appropriate – in support of Alliance policies, operations and activities, and in order to advance NATO's aims.

In theory it is possible to change a TA's *attitude* utilising PSYOPS, but it is practically impossible to measure with any accuracy in the short term, especially with a hostile TA. It is not likely that the enemy will fill out a survey to express their feelings towards the conflict. However it is possible to measure a behaviour change based on the actions or activities of a TA in response to applied motivation. For example, the coalition operations against Da'esh demonstrated conclusively that it was possible to cause a predicted behaviour in the enemy through a non-lethal engagement. Da'esh fighters were observed repeatedly picking up leaflets dropped by coalition forces,⁶ and doing nothing else until they were all collected. Deliberately having Da'esh pick up hundreds of thousands of leaflets was a desired behavioural change from their defensive preparations and daily routines. The employment of this and other similar techniques contributed to the defeat of Da'esh within Iraq.⁷ It is with these kinds of engagements that PSYOPS could support offensive combat operations.

ENABLERS FOR THE COGNITIVE DIMENSION

PSYOPS is doctrinally a key IRC and cognitive engagement enabler, but as a *capability* it is frequently misunderstood. Expectations for the desired effect of a PSYOPS plan, for example changing the opinion of the adversary so that they turn in their weapons, are significantly reduced when that effect is not achieved in short order. The resulting perception is that PSYOPS elements are not capable of providing tangible effects to support of combat operations and as a result become employed as a *hearts and minds* tool used to engage indigenous populations. Although engagement with the local population is an important task for all operations, using PSYOPS to do this limits the ability to support manoeuvre forces.

PSYOPS most commonly recognised as a capability with enablers including loudspeakers, radio broadcast systems, leaflets and most recently social media.⁸ To be effective, PSYOPS also

⁶ This was referred to as the 'Holy Grail' of the communicator's world by Mr Mark Laity, Director Communications Division, NATO SHAPE, in 2019.

⁷ It is assumed Da'esh picked up leaflets in order to prevent civilians from receiving any communication from the coalition, however it was the behaviour of picking up leaflets itself that was exploited by the coalition.

⁸ An analogy is thinking of Artillery as howitzers only, rather than the required and integrated functions provided by the forward observer, command post, reconnaissance and supporting echelons required to have a projectile, weapon of the Artillery, fired on target.

requires detailed human terrain analysis, various forms of product development and production, and multiple dissemination capabilities in order to send a message to a TA in order to achieve a desirable behaviour change.⁹ Behaviour can be observed and tracked over time and therefore measured. It is relatively easy to change a human's behavior¹⁰ with knowledge of core human psychology and appropriate motivation. In support of operations, behaviour change is ultimately the desired end state of an offensive action, with the adversary ceasing operations, surrendering or fleeing. In order to be an effective combat enabler PSYOPS needs to concentrate its internal functions on a desired behaviour change of the adversary, seeking vulnerabilities and weaknesses to exploit.

Doctrinally the US Special Operations Forces (SOF) utilise ACE methodology in support of combat operations. US SOF uses tactical Mission Information Support (MIS) teams to reduce the adversary's will to fight, instill and exploit the fear of death or defeat in the adversary, undermine the adversary's confidence in their leadership, decrease their morale and combat efficiency, and encourage surrender, defection, or desertion . This focus on the adversary is to gain tactical advantage by exploiting the cognitive effect of physical combat power. The message conveyed by MIS teams is credible based on the actions or perceived actions of lethal engagements, enhancing and compounding negative emotions in the enemy. The US Army utilises this capability to support conventional forces in the same manner.

Historically, PSYOPS has been used as a combat enabler by Western militaries for decades. During Operation DESERT STORM widespread Iraqi surrender or desertion significantly reduced Iraqi C2 as it robbed Iraqi high command of its primary sensors, contributed to poor morale, and lowered tactical responsiveness . There is anecdotal evidence of mass Iraqi forces surrendering to Unmanned Aerial Vehicles (UAV) and helicopters, often with soldiers clutching 'surrender instruction' leaflets. Approximately 87 000 Iraqi soldiers surrendered after US PSYOPS forces targeted specific vulnerable Iraqi units with leaflets, loudspeaker scripts and

⁹ A message to the approved TA is the *weapon* of PSYOPS.

¹⁰ In order to demonstrate the relative ease of human behaviour change, here is a brief experiment for the reader. Think about breathing. Concentrate on deep breaths, thinking about the air going into your lungs, deliberately moving the air slowly in and slowly out. Do this for a few breaths. Now try to breathe without thinking about breathing. If you are like the majority of people, you will have to distract yourself before you can breathe automatically again. Your physical behaviour was temporarily changed by reading this paragraph.

radio broadcasts. PSYOPS as a combat enabler at the operational level has been proven effective.

CAPABILITY GAP

Canada's closest allies have long indicated the need for offensive PSYOPS. There need for a national PSYOPS organisation in the US Army as of 1983, with concern that the "ad hoc committees created in reaction to regional crises" would not provide the nationally coordinated capability required to counter international threats . Threats from nations or non-state with engagements within the information environment have been realised by Canada and her allies, but all struggle in how to effectively attack or defend, in particular within the cognitive dimension.

Within the IE the CAF has capabilities to engage elements of the IE including physical components, such as a destroying a computer server or broadcast tower, and some capability to conduct computer network and other cyber operations in the virtual dimension. There are also elements capable of operating in the cognitive space with civil and media engagements. A dedicated CAF capability focusing on an adversary's cognitive dimension at a tactical to operational level is not as apparent.

Existing ACE capabilities in the CAF predominantly reside within the Canadian Army (CA) in the form of tactical PSYOPS within Influence Activities (IA) units in the Primary Reserve. This consists of IA Companies which combine PSYOPS and Civil-Military Cooperation (CIMIC) elements to support brigade and lower manoeuvre formations and units. CA doctrine states that IA should "focus on promoting perceptions, attitudes, and understanding that influence will and affect the behaviour of governments, organizations, groups and individuals to support the achievement of the objective and ultimately the end state" . In the IA Company there are Tactical PSYOPS Teams, a Target Audience Analysis cell, limited production and planners.

At the national level is the Joint Operational Effects (JOE) cell, an emerging staff element at the Canadian Joint Operational Command (CJOC) headquarters which is tasked with Info Ops and

military StratCom coordination and planning, with a similar function at the Canadian Special Operations Force Command (CANSOFCOM). These are focused on both adversarial and friendly CAF engagements at the operational to strategic level in support of missions abroad. These elements provide strategic and operational guidance for operations including PSYOPS when employed. The Public Affairs branch is evolving to engage in military StratCom, also focused at the operational to strategic level, in addition to the more traditional role of media interaction.

PSYOPS elements employed in an IA Company focus on broad audiences which include civil populations, governments and support agencies. CA doctrine states that “the presence of civilians will be a key factor that will influence all aspects of the campaign”. While this is an essential task in any operation¹¹, this emphasis limits the effort required to engage the *enemy* on a cognitive level. An analogy would be using the Artillery to support a humanitarian aid mission because the personnel and vehicles could be employed to move civilians and related supplies.¹² Changing focus from civil engagement to adversarial engagement would in all likelihood not be seamless, with increased potential for errors and omissions for both TAs.

OFFENSIVE COGNITIVE ENGAGEMENT CONSTRAINTS

The CA doctrinal approach to the employment of PSYOPS within IA is one of caution. It notes that “PSYOPS should never deceive or spread untruths, otherwise it will lose credibility and undermine campaign legitimacy... activities taken to instil fear or dissuasion in a target audience may only create hatred instead”. This implies that the psychological engagement of an adversary should be limited to overt benign surrender appeals and public information campaigns. Perhaps this is due to human nature about being caught sending a mistruth or lie. People in Western society in particular have “been socialized to believe that lying is bad. We are taught, and teach our children, that lying is immoral, reprehensible, and the mark of an immature

¹¹ Every conflict zone from Stalingrad to the Battle of the Atlantic to Op DESERT SHIELD has had significant civilian presence in the respective battlespace. Civilian casualty mitigation is an essential step to stabilisation post-conflict.

¹² It should be noted that Artillery was used to support IPD movement on at least one occasion in Iraq to provide illumination for many hours between two villages, 2016.

person”. It is also in our nature not to inflict harm on other human beings, however that is the accepted nature of the profession of arms.

If this cautious approach were employed to guide the use of targeted munitions, most lethal engagements would likely not be conducted due to hesitations of secondary explosions and collateral damage. Physical engagements happen based on the acceptance and mitigation of risk from target verification, validation and extensive knowledge of the likely result of explosives on a target. It is difficult to accurately predict the results of secondary explosions, such as when targeting an IED assembly location. That risk is weighed against the desired outcome of the engagement. These same principles can be applied for ACE, mitigating and accepting risk within the IE.

Canadian society in general has an abhorrence for violence, but accepts that the CAF engages in combat when called upon. After the 9/11 attacks, “Canadians strongly supported the government's decision to deploy the CF to Afghanistan and surrounding areas to defeat the Taliban regime and capture or kill members of Al Qaeda”. If the objective of a military engagement of an enemy is to destroy their will to fight, a fully considered approach to apply the principles of psychological warfare should be used in conjunction with physical combat power.

CA doctrine acknowledges that activities in the cognitive dimension are “more difficult and require the greater investment in combat development and training” and that “intuitive judgement is required to affect a target’s understanding and will. Here, the *art* of conflict is dominant” . This indicates the need to include the deliberate ability to deceive, instil fear and cause confusion in the enemy, while taking into consideration potential second order and subsequent effects that may be caused in doing so.

Perceived legal constraints with engagement of the enemy in the cognitive dimension also pose a challenge to effective ACE employment. There are, however, no particular points within the Law of Armed Conflict (LOAC) that preclude ACE activities. The only specific limitation in CAF LOAC doctrine is that the employment of PSYOPS or propaganda is prohibited from the incitement of “illegal acts of warfare, as for example killing civilians, killing or wounding by

treachery or the use of poison or poisonous weapons”. Staff at the CAF’s operational headquarters have expressed concerns that the CAF remain too risk averse to engage non-munitions based target sets” of non-munitions based targeting, hampered by a lack of Info Ops delegation of authorities not being adequately provided to lower levels, and legal ambiguity of operations in the IE. Canada’s adversaries have no such constraints. The CAF targeting process is mandated to integrate IRC in order to engage valid targets to achieve deliberate military objectives .

MOVING FORWARD

There are examples of relatively small PSYOPS units that maintained global reach. The United Kingdom’s (UK) former unit, 15th Psychological Operations Group (POG), was at its peak able to support the UK’s world-wide operations with approximately 50 personnel including support elements. Although it was not solely focused on an adversarial target audience, it was able to conduct continued and sustained operations for print, broadcast and special capabilities through *reach-back* to their home station and a deployment of a small number of personnel to each mission. This is a plausible-sized unit that could be replicated in the CAF.

A relatively small unit dedicated to ACE activities would fill the tactical to operational gap in the CAF and provide a key combat enabler to our allies in current and future operations. The engagement of non-adversary and civilian TA should remain in the realm of IA, PA and StratCom enablers. A Company-sized element, utilising all available tools¹³ for engagement within the IE, could then focus its support Joint tactical and operational engagements for the CAF. The emphasis of this element should remain exclusively focused on Canada’s adversaries in order to maintain a high level of competency. Just as firepower is often practised but seldom used, so to should this capability¹⁴.

CONCLUSION

¹³ This would require coordinated effort with other IRC including Cyber and StratCom.

¹⁴ Elements and trades in the CAF, such as fighter aircraft and artillery, exist primarily to project combat power. These are exercised extensively, but are rarely used in their full respective capacity operationally.

The CAF currently has active elements capable of engagement in the cognitive dimension, but none solely focused on the engaging the adversary in support of tactical and operational missions. The constraints identified above that have contributed to the limited use of PSYOPS for ACE can be mitigated through education and awareness of the related capabilities, adherence to existing doctrinal concepts, and acceptance of associated risks with their employment. Utilising existing IRC enablers to engage non-adversarial TAs would allow a dedicated PSYOPS element to focus on ACE.

Having a small element similar in size to the UK's 15 POG dedicated solely to adversarial engagement for CAF operations is both achievable and necessary in today's contemporary operating environment. From winning a firefight by instilling fear and confusion, to facilitating the adversary's defeat with a message containing surrender instructions, to instilling mistrust in the enemy's C2 with false orders, having a reliable ability to engage the enemy's will is an essential combat enabler for the CAF.

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