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CANADIAN ARMED FORCES DECISION MAKING

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JCSP 40

Exercise Solo Flight

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EXERCISE *SOLO FLIGHT* – EXERCICE *SOLO FLIGHT*

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ABSTRACT

The Canadian Armed Forces (CAF) provides various tools to aid its soldiers make multi-factored decisions. At lower levels, Battle Procedure is practiced to achieve mission success. Adhering to associated NATO guidance the analytical CAF Operational Planning Process (OPP) is used, within the Brigade and above levels. This technique serves as a bridge between strategic guidance and tactical action(s). The purpose of this paper is to recommend an initiative that could fine-tune our existing CAF OPP, herein referred to as OPP. Ensuring common baseline knowledge, the paper will first explore the current military decision making environment and expand upon the enabling concept of intuition. A quandary associated with effectiveness of OPP will be considered followed by a cursory review of the evolving US approach to military decision making. Two possible improvements to the OPP will then be introduced, with a focus on the recommended way forward. This approach will enable decisions to be made more effectively and with greater speed.

CANADIAN ARMED FORCES DECISION MAKING

THE CAF DECISION MAKING ENVIRONMENT

It has been determined that deliberate rational decision making models do not bode well for those businesses that function within high pressure environments.¹ Now more than ever, as we continue to serve the mandate of the Government of Canada and operate in areas where decisions need be made with strict timelines amid many stressors, there are increasing similarities between the CAF and a business. Appreciating the information overload that continues to occur due to advancing technology and an increased focus on CAF operations since 2002, the time is ripe to consider a new tactic in our decision making process; this need was articulated in 2003.² Countries including the United States (US)³, Israel⁴ and Russia⁵ continue to validate their decision making models with a view to increase efficiencies and guarantee relevance.

To facilitate comprehension in how to solve complex military problems, it is imperative that future leaders of the Navy, Army and Air Force elements undertake training and garner confidence and experience in the OPP, as they may be employed in a variety of staff positions during subsequent postings.⁶ Traditionally, staffs encompass a maximum of nine different cells and each is prefixed by a letter corresponding to their work designation. The identifier 'N' refers to naval staff, 'G' is associated with the land

¹M. Sinclair, and N.M. Ashkanasy, "Intuition Myth or a Decision-making Tool?" *Management Learning* 36, no. 3 (2005): 353.

²D.J. Bryant, R.D.G. Webb, and C. McCann, "Synthesizing Two Approaches to Decision Making in Command and Control," *Canadian Military Journal* 4, no. 1 (2003): 29.

³D.A. Bushey, and M.J. Forsyth, "The Recognition-Primed decision Model," *FA Journal* 11, no. 1 (2006): 10.

⁴Dudi Alon, "Processes of Military Decision Making," *Military and Strategic Affairs* 5, no. 2 (September 2013): 3.

⁵V.V. Barvinenko, "Evaluation and Decision," *Military Thought* 1, no. 1 (2004): 43.

⁶Howard G. Coombs, "Perspectives on Operational Thought," In *The Operational Art: Canadian Perspectives Context and Concepts*, ed. Allan English, Daniel Gosselin, Howard Coombs and Laurence M. Hickey, 75-96 (Kingston: Canadian Defence Academy Press, 2005).

staff and 'A' the air staff, while 'J' indicates a joint staff environment. Each of these cells are comprised of a senior officer with their support team. With this construct, a minimum of one team member has undertaken formal OPP training.

Even though informal exposure to the OPP is a function of an officer's trade and employment circumstances, preliminary formal instruction is delivered by the Canadian Army Command and Staff College to candidates undertaking the Army Operations Course (AOC). This career course is targeted towards senior Captains who have shown potential for advancement. At this stage of their career, these future leaders would have between 10 and 13 years of completed service.⁷ Ideally, among the breadth of knowledge they bring to the course from their careers to date is a minimum of one operational deployment. This will serve to benefit their learning and that of their colleagues throughout the various discussions and exercises that occur during the course.

THE POTENTIAL OF INTUITION

There are five steps in the OPP.⁸ The fundamental step is Initiation and encompasses the process by which a mission is received from a superior to a commander. Subsequently, during the Orientation stage, the commander provides initial staff guidance to shape their efforts in resolving any aspects that need to be considered to ensure mission success. The output from this second phase is the Commander's Planning Guidance. Although certainly qualified to do so, there is neither a requirement nor expectation for the commander to indicate a course of action (COA). Once it has been

⁷Department of National Defence, "Courses – AOC and P Res AOC," in Student Handbook (Kingston: Canadian Land Force Command and Staff College, 2009), 21-30.

⁸Department of National Defence, *B-GJ-005-500/FP-000, Canadian Forces Joint Publication 5.0 (CFJP 5.0) The Canadian Forces Operational Planning Process, Change 2* (Ottawa: Strategic Joint Staff, 2008), 1-11.

determined that the assigned end state is achievable, efforts shift to the laborious, analytical and time intensive activity of COA Development. Post COA evaluation, the commander will indicate their preferred COA, which is the catalyst for the next stage, Plan Development. Here, focussed staff energy delivers a host of products, to include operation orders and contingency plans, which will provide salient details to subordinate organizations. Finally, undertaking the Plan Review serves to verify validity prior to its implementation. This current approach echoes the rational choice decision making process. The focus of this practice is to make logical decisions whilst discounting personal bias and minimizing any intuitive aspects.⁹

The CAF should incorporate intuition into formal decision making. Currently a fully unexploited resource of self-guidance, it

. . . could be likened to a non-conscious scanning of internal (in memory) and external (in environment) resources in a non-logical, non-temporal manner in order to identify relevant pieces of information that are fitted into the 'solution picture' in a seemingly haphazard way, similar to assembling a jigsaw puzzle.¹⁰

CAF doctrine has addressed the use of intuition at the commander level and has evolved slowly over time. Initially, its use was not encouraged as “Anything less than a complete understanding based upon actual experience in the current operation is extremely dangerous and will lead to disaster.”¹¹ The current version of the quintessential doctrinal publication governing the OPP mentions intuition once, in the introduction portion of the 142 page document.¹² The initial intimidating statement, combined with the

⁹Steven L. McShane and Mary Ann Von Glinow, *Organizational Behaviour*, 5th Ed. (Toronto: McGraw-Hill Irwin, 2010), 198-200.

¹⁰M. Sinclair, and N.M. Ashkanasy, “Intuition Myth or . . .”, 357.

¹¹Department of National Defence, *B-GL-300-003/FP-000, Land Force Command* (Ottawa: Directorate of Army Doctrine, 1996), 148.

¹²Department of National Defence, *B-GJ-005-500/FP-000, Canadian Forces Joint . . .*, 1-1.

current approach presumes that intuition should be drawn upon only in instances where an analytical approach, such as the OPP, has been successfully proven. An issue with this stance is that only commanders, a small number of CAF members, are permitted to use this tactic. In addition, given the uncommonness of two exact operational scenarios, it would be rare in the CAF to not only combine intuition with analytical thinking, but also to act as its alternative.

IS THE AIM OF DOCTRINAL OPP BEING ACHIEVED?

Time is oft a luxury staff can ill afford. Domestic-based military organizations such as the Canadian Joint Operations Command (CJOC) prepare for, and conduct, operations throughout the world. When international incidents occur, short timelines arise in which the OPP needs to be leveraged. This has been highlighted by the high readiness deployments of the Theatre Activation Team in October 2014 to support the Canadian contribution to Op IMPACT in the Middle East,¹³ and the Disaster Assistance Response Team earlier this month to Nepal.¹⁴ Once deployed, staff members may frequently shift from one OPP iteration to another as significant events evolve. Here, sound timely decisions have the potential to save not only the lives of soldiers but also those requiring humanitarian assistance. Further compounding time stressors is the CAF doctrinal 'One Third, Two Thirds' rule. This valuable precept allocates the command level a third of the time left prior to decision making commitment and issuing orders, while assigning the

¹³Government of Canada, "Theatre Activation Team departs from 8 Wing Trenton," last accessed 30 April 2015, <http://www.rcf-arc.forces.gc.ca/en/article-template-standard.page?doc=theatre-activation-team-departs-from-8-wing-trenton/i1dpx671>.

¹⁴The Canadian Press, "Nepal earthquake: Canada deploys Disaster Assistance Response Team," last accessed 4 May 15, <http://www.cbc.ca/news/canada/nepal-earthquake-canada-deploys-disaster-assistance-response-team-1.3058852>.

remaining period to subordinate levels for mission preparation.¹⁵ In addition to staff cohesion and experience, the development of various COAs is also a significant factor affecting the compulsory time needed to conduct the OPP.

In COA Development, members of the J2 (Intelligence) cell generate three enemy COAs. Conventionally these are termed the most likely, most dangerous and another. The J5 (Plans) cell is tasked to lead the development of friendly COAs. During these activities, the chief of staff (COS) will ensure that allocated timelines are met. Ending with the commander indicating his choice of COA to be matured, the other two friendly COAs are then abandoned. It is easy to appreciate how the third step of OPP is particularly time intensive and grounded in the reliance on analytical processes (i.e., template charts, matrixes and computer simulated models).¹⁶ Holistically, although a purpose built analytical tool, in practice the OPP is truly subjective. It requires staff members that do not undertake OPP training, specifically those at the (junior) Captain rank and below, to expend a substantial amount of effort to support and enable their supervisors. In this manner a soldier's intuition, military training, experiences and personal bias are combined to facilitate their analysis, decisions and recommendations. These products serve as the inputs for OPP trained supervisors. Because this data is not indisputably rational, neither staff leadership nor the commander can accomplish purely analytical decisions. This unintended OPP failing gives support to the saying "No battle plan survives contact with the enemy."¹⁷ Indeed, some operational commanders lack requisite staff experience to ensure received direction translates well into their subsequent

¹⁵Department of National Defence, *B-GL-321-005/FP-001 Battle Group in Operations* (Ottawa: Canadian Army, 2012), 6-13.

¹⁶Department of National Defence, *B-GJ-005-500/FP-000, Canadian Forces Joint ...*, 4-11.

¹⁷Hickman, Kennedy, "Franco-Prussian War: Field Marshal Helmuth von Moltke the Elder," last accessed 30 April 2015, <http://militaryhistory.about.com/od/1800sarmybiographies/p/vonmoltke.htm>.

actions.¹⁸ Research by McNamara and Sutcliffe on regulating decision making procedures determined that

. . . organizations often try to compensate decision makers' limited cognitive abilities by creating standard decision making practices. This assumes that decision makers will be rational in using prescribed practices and neglects the situationally dependent nature of behavior.¹⁹

Potential for the above predicament not only exists within CJOC, but also within smaller joint headquarter environments such as the Canadian Forces Joint Operational Support Group. Here, a cell grouping might consist of a senior officer with a vast amount of experience in the decision making process, others who received the OPP training prior but have not actively employed their knowledge and those may have recently completed AOC training. This scenario, combined with the potential for the staff to be unfamiliar with various aspects of the problem space, raises speculation as to whether the intent of the OPP is being achieved. A similar scenario is more acute within a single element staff, such as a Brigade Headquarters (HQ), or a unit setting, as output from these organizations become input for higher HQ planning.

In terms of authenticating these concerns, a civilian agency was contracted by the Department of National Defence to confirm whether instructed OPP is utilized as intended.²⁰ The study involved assessing 1 Canadian Mechanized Brigade Group (1CMBG) during a scheduled exercise. Use of the OPP was studied by observers during

¹⁸Lieutenant-Colonel C.R. Kilford, "On 21st Century Operational Art," In *The Operational Art Canadian Perspectives Context and Concepts*, ed. by Allan English, Daniel Gosselin, Howard Coombs and Laurence M. Hickey, 249-270 (Kingston: Canadian Defence Academy Press, 2005).

¹⁹K.M. Sutcliffe, and G. McNamara, "Controlling Decision-Making Practice in Organizations," *Organization Science* 12, no. 4 (2001): 498-499.

²⁰L. Bruyn, L. Rehak, R. Vokac, and T. Lamoureux, *Function Flow Analysis and Comparison of Doctrinal and Applied Operations Planning Process* (Toronto, ON: Defence Research and Development Canada, 2005), 5.

four iterations of the cyclical activity within the context of credible scenarios. The outcomes determined confirmed

. . . overall the Staff followed more of a step-by-step analytical approach rather than an intuitive approach to decision making . . . [however] at the individual level it is felt that the input of various Staff to the OPP was intuitive, or at least based on their own estimate of the situation.²¹

In short, analytical and intuitive decisions were both used during the OPP at the Brigade level.²² This corroborates the previous statement that the OPP is not solely an analytical process. The potential for intuition to be positively leveraged in the CAF can be established via differentiating the CAFs current decision making methodology with that of an allied force that promotes its use.

US APPROACH AND ENHANCEMENT

The military decision making process (MDMP) is the model of decision making employed by the US Army.²³ This system consists of seven steps, which are comparable to the OPP in terms of both purpose and procedures required to attain an informed and educated decision. Similar to the OPP, MDMP is an analytical approach which adheres to the rational choice decision making process. Analysis by the US Army has shown that this variant did not generate plans, orders and other output products at an adequate rate within the climate of the Global War on Terrorism.²⁴ As a result, a more intuitive tactic has been developed and effectively employed in a garrison training environment, to prepare for its integration in an operational deployment.

²¹*Ibid.*, 33.

²²*Ibid.*, i.

²³Major John D., "MDMP: One Tool in the Commander's Tool Chest," *Army Logistician* (September – October 2008): 18.

²⁴D.A. Bushey, and M.J. Forsyth, "The Recognition-Primed . . . , 10.

This innovative approach is designated the recognition-primed decision model (RPDM). Comprised of four steps, it encourages exploiting intuition. An alternative to the traditional approach, it is command-led. In terms of results, efficiencies to the planning process of 20 percent have been achieved.²⁵ This procedure recognizes the role of the commander in Plan Development, as well as the positive role that intuition can have. With the RPDM, the conventional most likely, most dangerous and another adversary COA are designed. Time is initially saved because a lone friendly COA is provided by the commander for staff development. The logic behind this is that, as the senior member who has the most experience, the commander should supply the organizational thrust vice providing only general guidance. Deemed an important evolution from initial doctrine, the commander is empowered early in the process. As such, (s)he can narrow staff focus based upon the provision of a single piece of information. An inherent drawback of this method is that (un)intended personal bias may factor into both the problem and solution space.²⁶ As mentioned, due to the requirement of the commander to decide which friendly COA to mature, this characteristic is embedded within existing CAF and US military doctrine.

OPTION 1 – TRAIN TO ENABLE A HOLISITC OPP

Given the evidence, there exist two possible COAs which can improve the manner that the OPP is applied in the CAF. The first option concentrates on the delivery of formal OPP instruction to the commander's entire staff. If implemented, this would result in a decreased reliance and use of the intuitive approach towards decision making,

²⁵*Ibid.*, 12-13.

²⁶Steven L. McShane and Mary Ann Von Glinow, *Organizational Behaviour ...*, 205.

an area identified in the 1CMBG training analysis. Given the well-founded CAF instructional regimen of instruct, walkthrough, confirm and assess this training should not only be based on initial exposure, but also on instructor-led scenarios and confirmatory exercises. Given the staff cell composition, this initial education would be required for the rank range of senior non-commissioned members to senior Captains. This extends down to the rank of Sergeant as they will often backfill a Warrant Officer billet for a prolonged period. Understandably, the development and institutionalization of this COA is both a lengthy and costly endeavour. Given my career to date as both a student and staff member within the CAF training system, the staff level would not benefit from the preferred end state until a minimum of three years had passed. This COA is discarded given the presented analysis.

OPTION 2 – INSTITUTIONALIZE INTUITION WITHIN THE OPP

Current doctrine can be modernized via this second and recommended approach. Minimizing personal bias, this approach combines an analytical and intuitive methodology to further empower the commander. It will be essential that the CAF OPP training vehicle socialize both the risks of intuition and instill its benefits in course candidates.

Combining the proposed analytical and intuitive tactic is exhibited in everyday civilian and low level military decision processes. As an unsophisticated CAF example, consider how a unit sports day is organized. A unit member tasked with this assignment will naturally draw upon both past experiences and available information, while putting

their distinctive twist to the event to ensure uniqueness and success. A natural evolution of this can be applied to achieve strategic and operational effects within the CAF context.

The suggested method modifies COA Development, the third OPP step. Comparable to the RPDM, only one friendly COA would be pursued.²⁷ Dissimilar from the US approach, this option would be established by a team comprised of the commander, their COS and the J5. Within the organization, the commander would be the most knowledgeable and experienced leader; the COS would provide a significant contribution. Due to their OPP skill as a function of their principal planning function, the J5 will also be integrated into this grouping. Development of the COA would be based on the amalgamation of available information and participant intuition. Having received the formal OPP qualification as senior Captains, this tiger team now has additional experiences from prior postings, and likely additional operational experiences to leverage. An additional advantage of this pairing is that junior team members would receive direct tutelage from the commander. This would enhance their career development and ideally strengthen their potential towards becoming commanders themselves.

The J3 is intentionally excluded from the grouping as this cell's primary task during OPP remains to construct adversary COAs. This intended separation of those concerned with developing friendly and enemy COAs both decreases bias and alleviates the potential for planning to evolve into an occurrence termed 'situating the estimate'. This phrase refers to making a decision lacking the benefit of thorough analysis, and then molding all subsequent points of view to support the initial decision.

²⁷D.A. Bushey, and M.J. Forsyth, "The Recognition-Primed ...", 11.

Once devised by the commander, COS and J5, the friendly COA will be at a rudimentary stage and assigned to the staff. Affected cells, recognizing that the endorsed COA had been developed by superiors with the bulk of the OPP experience within the organization, will move COA Development forward with confidence and focus. Their task remains to add the essential elements associated with ensuring the assigned COA is as successful as possible. COA progression need be furthered by using both intuition (AOC graduates) and the host of analytical development and support tools (all staff). Throughout, cell leaders must be prepared to defend each phase of the process. As required, subordinates can seek clarification from the tiger team; communication remains a paramount enabler.

It remains to be seen if this recommendation would yield considerable time savings, as has been measured during the US Army's examination utilizing the RPDM. Efficiencies will be realized without formal valuation, given both the development of one friendly COA vice three, and the independence from the traditional doctrinally analytical approach. These dominos of success will persist as time savings are further achieved by issuing formal orders sooner, earlier completion of requisite preparations by the tactical level and facilitating mission execution more quickly, all of which amplifies the likelihood of mission success. Likewise increased is the probability of leveraging one of the Principles of War, specifically the element of surprise.²⁸

It is appropriate to comment on the importance of taking advantage of learning opportunities. Upon completion of the OPP sequence, or during reconstitution post mission execution, those involved should participate in the After Action Review (AAR)

²⁸Department of National Defence. *B-GL-300-001/FP-001, Land Operations* (Ottawa: Chief of the Land Staff, 2008), 3-6 - 3-7.

process. Within this framework, prominent aspects of this analytical and intuitive OPP can be captured. The aim is to transition 'Lessons Observed' to 'Lessons Learned', to the benefit of those involved in ensuing OPP cycles. Ideally, the review would be highlighted by the commander, COS and J5 sharing their perspectives in a collective information exchange. As the AAR procedure is often an underutilized military aspect, suitable efforts need be expended to ensure this focused learning opportunity is profitable.

CONCLUSION

The existing CAF decision making process is analytical by design. Multiple COAs are constructed by a HQ via exhaustive information analysis associated with a variety of salient factors. When potential friendly and adversary options are compared, the commander indicates their choice of friendly COA; this decision serves as the catalyst for the bulk of the remaining staff effort. Evaluated within the CAF at the Brigade level, OPP implementation has proved to be a combination of analysis and intuition, not just the sanctioned doctrinal analytical approach. Enhanced technology has resulted in more robust logical tools for CAF decision makers. When combined with commanders' experiences at the operational, strategic and international levels, we must operate with an efficient and proven formalized decision making methodology. It is recommended that the current OPP be enhanced by endorsing and implementing intuition whilst continuing to leverage technological tools. This, along with a small team who initiates a single friendly COA during the third step of the OPP, will result in minimal bias and a timelier and effective decision making process, benefiting the CAF writ large and those we support.

BIBLIOGRAPHY

- Alon, Dudi. "Processes of Military Decision Making." *Military and Strategic Affairs* 5, no. 2 (September 2013): 3-20.
- Barvinenko, V.V. "Evaluation and Decision." *Military Thought* 1, no. 1 (2004): 43-50.
- Bruyn, L., L. Rehak, R. Vokac, and T. Lamoureux. *Function Flow Analysis and Comparison of Doctrinal and Applied Operations Planning Process*. Toronto, ON: Defence Research and Development Canada, 2005.
- Bryant, D.J., R.D.G. Webb, and C. McCann. "Synthesizing Two Approaches to Decision Making in Command and Control." *Canadian Military Journal* 4, no. 1 (2003): 29-34.
- Bushey, D.A., and M.J. Forsyth. "The Recognition-Primed decision Model." *FA Journal* 11, no. 1 (2006): 10-13.
- Coombs, Howard G. "Perspectives on Operational Thought." In *The Operational Art: Canadian Perspectives Context and Concepts*, edited by Allan English, Daniel Gosselin, Howard Coombs and Laurence M. Hickey, 75-96. Kingston: Canadian Defence Academy Press., 2005.
- Department of National Defence. *B-GJ-005-500/FP-000, Canadian Forces Joint Publication 5.0 (CFJP 5.0) The Canadian Forces Operational Planning Process, Change 2*. Ottawa: Strategic Joint Staff, 2008.
- Department of National Defence. *B-GL-300-001/FP-001, Land Operations*. Ottawa: Chief of the Land Staff, 2008.
- Department of National Defence. *B-GL-300-003/FP-000, Land Force Command*. Ottawa: Directorate of Army Doctrine, 1996.
- Department of National Defence. *B-GL-321-005/FP-001 Battle Group in Operations*. Ottawa: Canadian Army, 2012.
- Department of National Defence. "Courses – AOC and P Res AOC." In *Student Handbook*. Kingston: Canadian Land Force Command and Staff College, 2009.
- Government of Canada. "Theatre Activation Team departs from 8 Wing Trenton." Last accessed 30 April 2015. <http://www.rcmf-arc.forces.gc.ca/en/article-template-standard.page?doc=theatre-activation-team-departs-from-8-wing-trenton/i1dpx671>.

- Hickman, Kennedy. "Franco-Prussian War: Field Marshal Helmuth von Moltke the Elder." Last accessed 30 April 2015. <http://militaryhistory.about.com/od/1800sarmybiographies/p/vonmoltke.htm>.
- Kilford, Lieutenant-Colonel C.R. "On 21st Century Operational Art." In *The Operational Art: Canadian Perspectives Context and Concepts*, edited by Allan English, Daniel Gosselin, Howard Coombs and Laurence M. Hickey, 249-270. Kingston: Canadian Defence Academy Press., 2005.
- McShane, Steven L., and Mary Ann Von Glinow. *Organizational Behaviour*, 5th Ed. Toronto: McGraw-Hill Irwin, 2010.
- Nawoichyk, Major John. D. "MDMP: One Tool in the Commander's Tool Chest." *Army Logistician* (September – October 2008): 18-19.
- Sinclair, M., and N.M. Ashkanasy. "Intuition Myth or a Decision-making Tool?" *Management Learning* 36, no. 3 (2005): 353-370.
- Sutcliffe, K.M., and G. McNamara. "Controlling Decision-Making Practice in Organizations." *Organization Science* 12, no. 4 (2001): 484-501.
- The Canadian Press. "Nepal earthquake: Canada deploys Disaster Assistance Response Team." Last accessed 4 May 15. <http://www.cbc.ca/news/canada/nepal-earthquake-canada-deploys-disaster-assistance-response-team-1.3058852>.