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Maj Owen A.J. Savage

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AIM

1. The aim of this service paper is to examine how the targeting cycle methodology (TCM) can be used at the tactical level as a planning process. A tactical-level use of the TCM would provide commanders, specifically within a Battle Group (BG), an alternative approach to the Estimate and the Operational Planning Processes (OPP). The result would be to compliment rather than repeat the OPP and improve joint effects.

INTRODUCTION

2. In the past, tactical level formations have been limited to activities and planning commensurate to that level. Joint resources and combat support elements have remained at higher tactical and formation levels and the integration of other agencies has been held at the operational level. However, the demands of modern warfare have resulted in more fluid planning processes for lower tactical levels, in particular in complex environments and during complex operations. As seen in Figure 1, this has been incorporated into Canadian doctrine and is reflected in current planning processes. The doctrine identifies the need to modify the type of planning required at the different levels of command.¹ The diagram illustrates the need to incorporate more robust planning strategies as the complexities at the command level increase.

¹Department of National Defence, B-GL-300-001-FP-001, *The Conduct of Land Operations*, (Ottawa: DND Canada, 2008), 6-5.

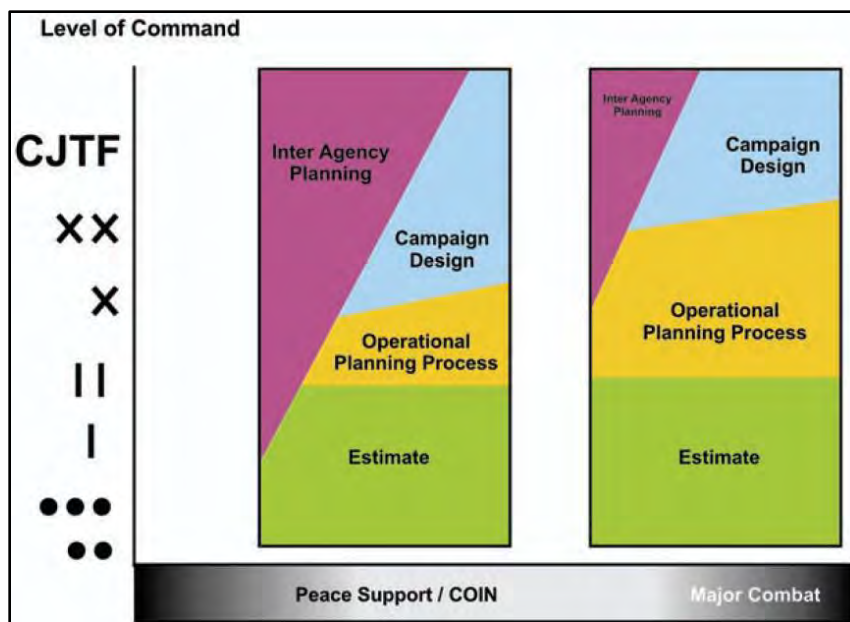


Figure 1: Compression of Planning Levels

Source: B-GL-300-001-FP-001, *The Conduct of Land Operations*.

3. Army doctrine emphasises the importance when conducting operations of ensuring that the activities at the tactical level are linked to operational objectives and the preferred end state. This is achieved by using an effect-based philosophy, supported by a manoeuvrist approach and the concept of mission command.² The Estimate is the mainstay for planning at the tactical level; however, the Operational Planning Process (OPP) is also being used at the Brigade level and, sometimes below. This paper will examine the strengths and weaknesses of these two approaches and explore the possibility of using the TCM in lieu of the Estimate to improve operational effectiveness.

²Department of National Defence, B-GL-300-001-FP-001, *The Conduct of Land Operations*, (Ottawa: DND Canada, 2008), 5-1.

DISCUSSION

4. Battle Group Command. At the BG, the central focus of the commander is to shatter the moral and physical cohesion of the enemy in order to deny it the ability to “fight as an effective and coordinated whole.”³ The goal is not destroying the enemy physically through attrition, but rather to defeat it by attacking its critical capabilities through its vulnerabilities.⁴ The commander can either use the OPP or the Estimate in order to make a decision and develop orders for subordinate commanders to prepare for and execute operations in support of this end.

5. The Estimate. Command in Land Operations describes the estimate of the situation (the Estimate) as “the principal tool in command and staff decision-making.”⁵ It is intended to provide the commander a structure for analyzing a problem and finding a reasonable solution. It has four main parts and can be completed by the commander alone, or with support from his staff. It begins with mission analysis, which “places in context what effect is to be achieved in the overall design for operations and results in the commander’s own mission statement.”⁶ The second step, evaluation of factors, considers how the enemy, the environment, friendly forces, surprise and security, and time and space may affect the various tasks needed to accomplish the mission. The third step, consideration of courses of action (COA), develops broad possible methods for achieving the mission. Finally, the fourth part is the commander’s decision, which allows for the selection of a COA and the development of an outline of the concept of operations.

³Department of National Defence, B-GL-321-005-FP-001, *Battle Group in Operations*, (Ottawa: DND Canada, 2008), 4-1.

⁴Ibid.

⁵Department of National Defence, B-GL-300-003-FP-001, *Command in Land Operations*, (Ottawa: DND Canada, 2007), 4-29.

⁶Ibid., 4A-2.

6. The Operational Planning Process. The OPP is similar to the Estimate in that it is a “coordinated process to determine the best method of accomplishing assigned operational tasks and to plan possible future tasks.”⁷ Although a CAF operational tool, the Army uses it at the tactical level when commanders would have difficulty completing the Estimate due to the complexity of the problem and the amount of information and coordination needed to reach a desired end. The OPP provides to the command staff a set of logical, analytical steps to help decision making in conditions of uncertainty and ambiguity. Similar to the Estimate, the OPP is divided into five parts: Initiation, Orientation, COA Development, Plan Development and Plan Review. (See Figure 2) This has become the method of choice at the Task Force and Brigade level.

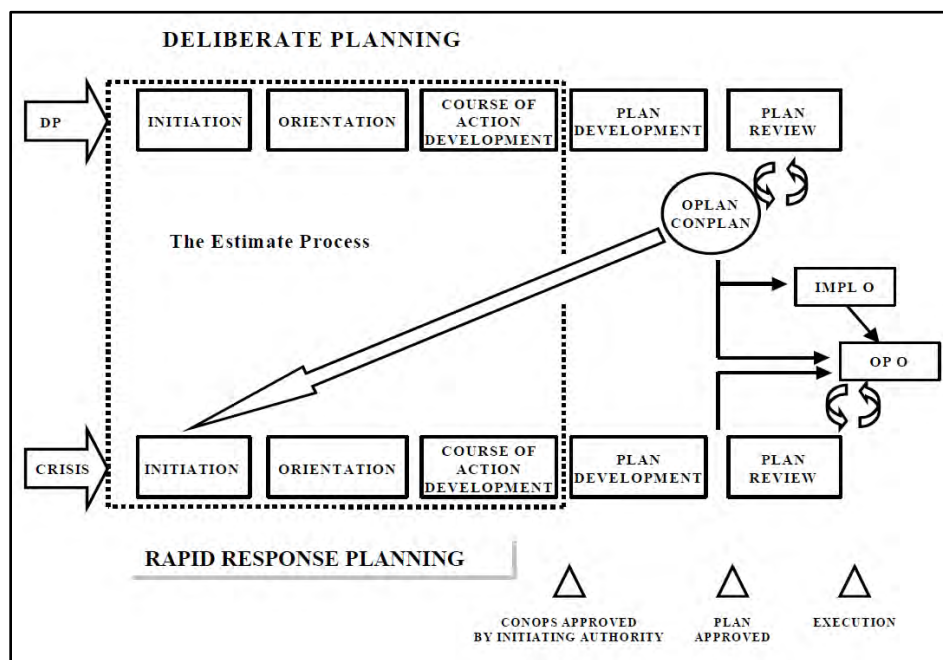


Figure 2: Planning Processes

Source: B-GJ-005-500-FP-000, *CFJP 5.0 The CF OPP*.

⁷Ibid.

7. The Targeting Cycle. The goal of the targeting process is to maintain focus on meeting mission objectives and the realisation of the desired end state.⁸ It links

strategic-level direction and guidance with tactical targeting activities through the operational-level targeting cycle in a focused and systemic manner to create specific effects to achieve military objectives and attain the desired end state.⁹

In so doing, it provides commanders at the operational and component level the ability to achieve the following:

- a. determine the effects necessary to achieve the commander's objectives;
- b. identify the actions necessary to create them based on the means available;
- c. select and prioritise targets;
- d. synchronise capabilities; and,
- e. assess effectiveness (taking remedial action if necessary).¹⁰

8. The targeting cycle has six steps and follows a similar pattern to both the Estimate and the OPP. It begins with the end state and commander's objectives, specifically identifying conditions and parameters for particular objectives (mission, objectives, intent, priorities and

⁸Department of National Defence, B-GJ-005-309-FP-001, *Canadian Forces Joint Publication 3-9 Targeting*, (Ottawa: DND Canada, 2008), 1-10.

⁹North Atlantic Treaty Organization, *Allied Joint Doctrine for Joint Targeting*, (Brussels: NATO Standardization Office, 2016), 1-1.

¹⁰*Ibid.*

desired effects).¹¹ The second step is target development and prioritization, and includes a comprehensive analysis of the target. Step three is capabilities analysis, which determines the best available means to affect the target. The Commander's decision and force allocation is the fourth step, followed by mission planning and force execution, the fifth step. The sixth and final step is assessment, which supports a commander to determine if the tactical actions have achieved the desired and planned effects. (see Figure 3)

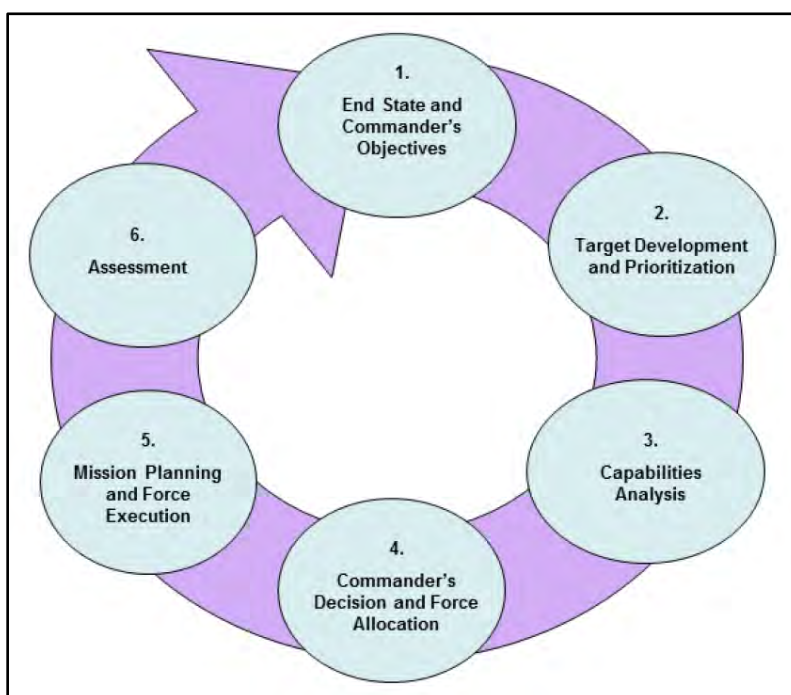


Figure 3: The Targeting Cycle

Source: B-GJ-005-309-FP-001, *CFJP 3.9 Targeting*.

9. Strengths and Weaknesses of Current Models. The OPP is an analytic approach to decision making, and, as a result it is a linear, structured and formal process. The Operational

¹¹Department of National Defence, B-GJ-005-309-FP-001, *Canadian Forces Joint Publication 3-9 Targeting*. (Ottawa: DND Canada, 2008), 4-3

Planning Process Handbook notes that this does not mean the OPP needs to be rigidly applied; rather, it argues it should be seen as flexible and adaptive, which it cites as an inherent strength of the OPP.¹² Relatedly, Lauder argues that the comprehensive structure of the OPP helps produce consistent results and allows commanders and staff “to decompose the problem-space into discrete components before synthesizing the results and formulating a response.”¹³ This is one of them, major strengths of the OPP, namely that it provides a systematic and controlled process for decision making within a complex and stressful environment.

10. At the same time, a primary criticism of the OPP, and the Estimate, is that they support development of multiple possible solutions (COAs), rather than relying on a naturalistic decision making process that capitalises on the experience and intuition of commanders and staff.¹⁴ This becomes more salient, the closer one moves to the tactical edge, as the time and information needed to develop proper alternative COAs becomes less available. As a result, it has been argued that the limited, but precious, time spent on exploring multiple possibilities is wasted; as studies indicate that the development of multiple COAs does not result in more effective solutions at the tactical level.¹⁵ In fact, studies have indicated that spending more time on understanding and defining the problem and then choosing and developing a single COA is more effective and efficient.¹⁶

¹²Department of National Defence, *The Operational Planning Process Handbook*, (Kingston: Canadian Land Force Command and Staff College, 2010), 5.

¹³Matthew Lauder, “Systemic Operational Design: Freeing Operational Planning from the Shackles of Linearity”, *Canadian Military Journal* Vol 9 No 4 (2009): 42.

¹⁴David Bryant, “Concepts for Intuitive and Abbreviated Planning Procedures.” Technical Report 2005-164 DRDC Toronto (Toronto: Defence Research and Development Canada, December 2005), 9.

¹⁵Matthew Lauder, “Systemic Operational Design: Freeing Operational Planning from the Shackles of Linearity”, *Canadian Military Journal* Vol 9 No 4 (2009): 43.

¹⁶Ross, K. G., Klein, G., Thunholm, P., Schmitt, J. F., & Baxter, H. C. (2004). The Recognition-Primed Decision Model. *Military Review* (July-August): 9.

11. A second concern with the OPP relates to redundancy of the process. As depicted in Figure 2, the Estimate is, in many aspects, a truncated version of the OPP. As a result, the commander develops their own COAs and subordinate tasks using the same methodology, and information that was used to develop the plan that resulted in their orders and mission. A significant concern is that this impacts both efficiency and effectiveness, creating the potential for group think and reducing the potential emergence of creative solutions and decision making. This raises the question of whether complementary and different methodology would be more efficient and lead to more effective planning processes.

12. A third criticism of the OPP and Estimate is that they create a “false sense of certainty.”¹⁷ It is questioned whether the systematic approach and listing of factors produces the impression that the situation is fully understood and picking the correct COA will ultimately lead to success.¹⁸ According to this criticism, this approach not only creates incorrect expectations, but at the tactical level it can lead to an incongruous approach. Rather than placing the emphasis on outcome and a swift, well-informed decision-action cycle, similar to Boyd’s famous OODA loop, there is a risk that the approach can lead to decision making that becomes mired in finding a single decisive action.

13. Despite these criticisms, it is widely accepted that the OPP is a well-established and robust tool for the decision making process at higher levels of command. The question is whether it should be used in today’s warfare environments at the lower tactical level.

¹⁷Matthew Lauder, “Systemic Operational Design: Freeing Operational Planning from the Shackles of Linearity”, *Canadian Military Journal* Vol 9 No 4 (2009): 43.

¹⁸Ibid., 44.

14. The Estimate, being a condensed version of the OPP, also seems to lack some key elements in meeting the requirements of the commander at the BG level, including, a misplaced emphasis on COA development that degrades the decision action cycle and leads to inefficient staff effort.

15. As described in *Canadian Army Doctrine Note (CADN) 16-01 Land Operations Doctrine – An Updated Summary* planning should go from “the desired objective back to the actual tasks and capabilities that will eventually achieve it to ensure a logical link from task and activity, through effects (physical and psychological) to build to the desired objective.”¹⁹ (see Figure 4) The Estimate currently leads commanders to place significant emphasis in their decision making on how tasks will be conducted. In other words, according to Figure 4, it starts in the middle of the below application, rather than at the desired end state and then working backwards to the required capabilities.

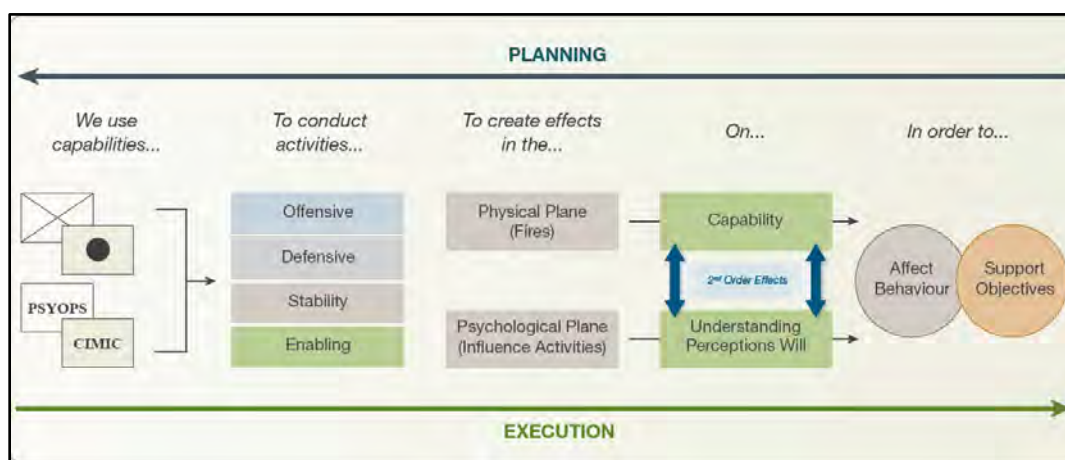


Figure 4: Full Spectrum Operations Applications

Source: CADN 16-01, *Land Operations Doctrine – An Updated Summary*

¹⁹Department of National Defence, *Canadian Army Doctrine Note (CADN) 16-01 Land Operations Doctrine – An Updated Summary*, (Ottawa: DND Canada, 2016), 24.

16. Targeting Cycle Methodology. Modifying the targeting cycle to meet the planning and decision making support needed at the BG might seem, at first review, to be oversimplifying the task faced by the commander and staff. However, the targeting cycle is fundamentally a planning process that was designed to complement the OPP. In the remainder of this brief, it will be explored whether the approach of, “understanding what effects need to be achieved, identifying the nodes through which the effect can be realized and then applying the appropriate resourced activity against those nodes” may alleviate many of the concerns noted above.²⁰ In particular, it will be explored whether the TCM allows for the development of a single, more effective COA than are developed through the Estimated and OPP process through a more intuitive based planning paradigm.

17. The TCM allows for a streamlined decision making process that channels all assessments into the development of one, effective solution. Rather than using resources to fully develop COAs that will not be implemented, it allows for alternatives to be considered early in decision making in a conceptual rather than detailed manner. This means that, in an operational environment of limited time and resource, non-desired paths of action can be eliminated early and more comprehensive thought and planning given to the development of one, effective strategy.

18. Relatedly, the TCM allows for more creative and comprehensive plans of action given that it allows for more robust consideration of all relevant factors in one plan. The TCM also allows the commander in a structured manner to evaluate and reassess his plan. The structured

²⁰Department of National Defence, B-GJ-005-309-FP-001, *Canadian Forces Joint Publication 3-9 Targeting*, (Ottawa: DND Canada, 2008), 4-4.

reassessment process is more likely to identify factors that have changed or are likely to change in a constantly evolving operational environment and should lead to reassessment of the plan.

19. Despite the above, there are potential limitations to the use of the TCM. First, although the TCM may allow the BG to operate more agilely and responsively to the enemy, it might run into the danger of a unit becoming fixated solely on the enemy and missing other threats and concerns in the operation environment. Given this, it would not be appropriate for the TCM to be used on its own and it would always need to be firmly embedded in a higher level OPP.

20. Another weakness of the TCM is that it does not address the operational functions of sustain and shield. These elements would still need to be addressed either by modify the targeting cycle, or by conducting a separate estimate for them and incorporating them into the targeting cycle. This could potentially occur at stage four, force allocation, or stage, five, mission planning and force execution. Even with these modifications to the TCM,, it still may not be efficient to support the development of sustainment and resupply plans, nor to sufficiently address the complexities of defensive planning.

21. The modifications needed to be made to the targeting cycle would not be simple. A complete overhaul and rewrite of the process would be needed to adapt it to the BG. Given the strengths inherent in both planning processes, it may be ideal for elements of the OPP to being incorporated into the targeting cycle. For example, elements of orientation could be incorporated into target development and capability analysis, while the subcomponents Plan Development could be used within the Mission Planning. This would need to be done while maintaining the

core elements and spirit of the targeting cycle. Despite the significant work that would be needed to achieve this, it would be hoped that the, the end result would eliminate the structurally and philosophically duplicative process currently found at each level of command and allow for a complementary process to be undertaken that could enhance the higher level OPP. It would also potentially help synchronise targeting within a theatre of operation.

CONCLUSION

22. Overall, the OPP remains a viable and effective methodology that is applicable and needed at the tactical level. However, the Estimate appears to lack the rigour to support planning and decision making in an increasing complex and integrated battle space. Further, it appears to neither support intuitive decision making nor provide the agility to enhance the decision action cycle.

23. The targeting cycle has the potential to replace the estimate as a planning tool at the BG level. It would address the concern of efficiency and shift focus from COA development to outcome and a rapid decision-action cycle. Further it would enhance and compliment the higher level OPP. However, it currently does not incorporate shield and sustain and at the BG level, would not support the development of sustainment and resupply plans, nor sufficiently address defensive planning. These shortfalls could be addressed by incorporating aspects of the OPP into the targeting cycle.

RECOMMENDATIONS

24. It is recommended that an alternative to the Estimate is developed for the BG level of command that embraces naturalistic decision making and is based on the targeting cycle. The objective should be the development of a complimentary process to the OPP that enables the commander to make quicker, more knowledgeable decisions in support of a manoeuvrist approach that allows the decision action cycle to be accelerated at the BG level.

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