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MASON CRABBE – WORTH ANOTHER LOOK?

By Colonel Chris L. Little

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ABSTRACT

Between 1960 and 1990, the Canadian Forces command and control structure underwent a series of changes leading Douglas Bland to characterize it from changing from the command era to the management era. Repeatedly, one study after another, introduced modern management methods and techniques into the command structure in order to achieve administrative efficiency without any thought to operational effectiveness.

The end of the Cold War and a significant increase in the number and complexity of CF deployed operations highlighted, only too clearly, the limitations of the evolved command and control structure. Ironically the most recent reorganization team, the Management Command and Control Reengineering Team, identified one option that had the potential to refocus the structure on command and control of operations.

Although subsequently dropped as being too radical for the day, VAdm Lynn Mason and LGen Crabbe conducted a directed review of the Centralized Operational Level Headquarters in 2000. With a limited mandate, this review did not fully investigate the potential this model offers. One aspect missing from both the MCCRT and the Mason, Crabbe reviews was a common system to measure the effectiveness of a structure to effectively command and control operations.

By using the Competency, Authority and Responsibility (CAR) model, developed by Ross Pigeau and Carol McCann, this paper evaluates the current headquarters structure of the Canadian Forces. With that baseline measurement completed, the centralized headquarters described by Mason and Crabbe is also evaluated using the CAR model. The results indicate that the Mason Crabbe study is worth another look.

Mason Crabbe – Worth Another Look?

By

Colonel C. L. Little

“Order and Disorder are a matter of organization.”

Sun Tzu (Fourth Century B.C.)¹

“The greatest lesson of this war has been the extent to which air, land and sea operations can and must be coordinated by joint planning and unified command. The attainment of better coordination and balance than now exists between services is an essential of national security.”

Hap Arnold.²

!

At the end of the Second World War, more than one million men and women were serving in Canada’s armed forces and the defence department employed 30,000 civilians.³ Today it is a significant challenge to maintain the strength of the Canadian Forces close to the approved level of 60,000. While the majority of the post war reductions occurred quickly after 1945, the major changes to the Command and Control structure of the Canadian Forces did not begin until 1964. Since then, a series of mostly

¹ Tzu, Sun. *The Art of War*. Trans. Thomas Cleary. Boston: Shambhala Publications, 1988. p 97.

² Arnold, Henry H. *Third Report of the Commanding General of the Army Air Forces to the Secretary of War*. Washington: War Department Bureau of Public Relations, 1944. p 72.

evolutionary changes have resulted in the structure of today. Throughout most of the period between 1964 and 1990, the type of operations performed by the CF remained reasonably stable; however, since 1990 the type of operations has changed significantly and the number of operations has increased dramatically. One result of these changes has been the identification of limitations within the Command and Control structure of the Canadian Forces (CF). This paper will argue that today's limitations in operational command and control are due to a lack of harmonization between the functions of command and control and a structure that has evolved on management principles. To achieve this aim, this paper will review the major reorganization activities of the last fifty years noting the impact of management principles. Then, by employing the Command, Authority, Responsibility (CAR) model proposed by Pigeau and Carol McCann it will evaluate the effectiveness of the current command and control structure of the CF. Finally, the work completed by VAdm Lynn Mason and LGen Raymond Crabbe will be reviewed as a potential solution to the current limitations.

From Then Until Now

At the end of the Second World War, despite a dramatic demobilization of the armed forces, the Canadian Forces retained the same basic command and control structure that had evolved from its British heritage. Each of the "Royal Canadian Navy, the Royal Canadian Air Force and the Canadian Army were commanded and administered by the three Service Chiefs and their efforts were coordinated, with varying

³ Sharpe, G.E. and English, Alan. *Principles For Change in the Cold War Command and Control of the Canadian Forces*. Winnipeg: Canadian Forces Training Material Production Centre, 2002. p 5.

degrees of success, by the Chairman of the Chief's of Staff.”⁴ Douglas Bland characterizes the period between 1945 and 1964 as the “Command Era” during which he believes the Canadian Forces were “militarily efficient” with decisions made “based on military concepts...and... subjectivity based on experience.”⁵ According to Bland a fundamental change in the command and control of the CF began in 1964 with the government decision to integrate and unify the CF and the Department of National Defence (DND). In comparison to the “Command Era,” Bland calls the period after 1964 the “Management Era” during which business management practices replaced a military ethos and the chain of command was replaced by functional organizations that “operate in long parallel lines from NDHQ to practically the lowest levels of DND and the CF.”⁶

Although Bland makes his analysis with the benefit of hindsight, it is clear from reading R.B.Byers’ essay entitled “Perceptions of Organizational Change and Force capability in the Canadian Armed Forces” that many of the senior officers of the day were concerned about the effect that unification would have on the CF. As Byers reports, there was significant support for integration beginning with the Chief of Defence Staff, Air Chief Marshall Frank Miller who “supported integration in terms of “a single defence staff, a single planning organization, and a single budgeting arrangement.””⁷ He was not alone as Byers indicates, “there was nearly unanimous agreement (98 per cent) among the senior military that integration would benefit the Armed Forces.”⁸ In essence, the service chiefs supported the creation of a joint structure to command and control the CF

⁴ Ibid. p X.

⁵ Bland, Douglas. *The Administration of Defence Policy in Canada 1947-1985*. Ottawa: Ronald P Frye, 1987. p 5-6.

⁶ Ibid. p 11.

and provide common service support functions. When considering unification, however, the opinions changed dramatically. “From the outset of the reorganization programme, members of the pre-unification defence staff were concerned that major organizational changes would have an adverse impact on combat effectiveness. According to General Robert Moncel many of the most experienced combat officers would soon retire, and there was a danger that inexperienced officers would “confuse peacetime administrative necessity with fighting requirements.”⁹

Gen Fleury shared this opinion and, long before the age of a computer on every desk, he offered this thought to Byers:

“There is a tendency in peacetime to look at administration as the be all and end all of the military operation...In peacetime...you tend more and more to look closer and closer at tidy administration as one indication of the efficiency of a unit or a commander...The fact remains that a fighting force ...is largely a matter of command and leadership, not a question of modern management techniques or answers that come out of a computer.”¹⁰

Another change introduced by the government at this time was its intention to “repatriate” Canadian defence policy with the details being published in the 1970 White Paper entitled “Defence in the 70s.” Internationally, approximately 50% of the Canadian forces stationed in Europe were returned to Canada. At home the Minister of National

⁷ Byers, R.B. “Perceptions of Organizational Change and Force Capability in the Canadian Armed Forces”, published in *Papers From Contributors to the Study of Professionalism in the Canadian Forces*, Ottawa: Canadian Defence Education Establishments, 1971. p C 8.

⁸ Ibid. p C 9

⁹ Ibid. p C 12. Gen Moncel was the VCDS and expected to become the CDS. He retired over unification.

Defence created the Management Review Group (MRG) “to examine the organization and management of the entire Department.”¹¹ Chaired by John B. Pennefather, the Group also included three other civilian businessmen and one civilian DND Director General. There was only one serving officer assigned to the MRG, MGen Hugh McLachlan. The main recommendation of the MRG was the integration of the military Canadian Forces Headquarters and the civilian Department of National Defence to create the initial National Defence Headquarters (NDHQ). The manner in which this occurred and sub-reports on specific aspects of NDHQ are described by Bland but his summation reflects the impact this had on the command and control of the Canadian Forces:

“Until 1972 the administration of defence policy in Canada was considered to have two aspects; that is, it was viewed as a command problem to be addressed by military concepts, and as a public administration problem amenable to theories of public management. Two distinct power centers, the CDS and the Deputy Minister, approached these problems with organizations and processes particular to their aspect of the problem. In this context it was a political responsibility to reconcile differences and risks. After 1972, the administration of defence policy became defined as a managerial problem *alone*, with the expectation that better management practices could make the “sharp end sharper.”¹²

While NDHQ was clearly turning into a management structure, the Functional Command headquarters continued to plan and exercise operations with North Atlantic Treaty Organization (NATO) and/or North American Aerospace Defence (NORAD)

¹⁰ Ibid. p C 12.

¹¹ Bland, Douglas. *Administration*. p 61.

Command as per the existing doctrine. It should be noted that the Functional Commands had very little command function to perform, as, in accordance with doctrine, during wartime, operational command or control of units would be automatically transferred to a NATO or NORAD commander.

The next major impact occurred in conjunction with the significant budget reductions of the 1990's. To contend with these reductions another special team was created. Re-confirming Bland's name for this era the team was called the Management, Command and Control Reengineering Team (MCCRT). The MCCRT, like many businesses of the day, adopted the re-engineering strategies of Michael Hammer and James Champy. Their book, "*Re-engineering the Corporation: a Manifesto for Business Revolution*", became like a bible being handed out throughout organizations of the CF to enable everyone to adopt Hammer and Champy's reengineering process.

Hammer and Champy advocate reengineering by throwing out concepts of structure and, instead, defining business by its processes; "a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer."¹³ The one big problem with this approach was that the CF was adopting reengineering primarily as a method of coping with force reductions, not to improve effectiveness. In their book Hammer and Champy say, "reengineering is not restructuring or downsizing... reengineering also is not the same as reorganizing, de-layering, or flattening an

¹² Ibid. p 84.

¹³ Hammer, Michael and Champy, James. *Reengineering the Corporation, A Manifesto for Business Revolution*. New York: Harper Business, 1993. p 35.

organization, although reengineering may, in fact, produce a flatter organization.”¹⁴ Or, in other words, after reengineering you may be more efficient in delivering your product or service and from that you may, or may not, be able to reduce your personnel strength.

Having picked their method, the MCCRT then created 14 Working Groups who were to reengineer all CF activities along the lines of the four core processes that had already been established by the MCCRT: Strategic Direction, Force Generation, Force Employment, and Corporate Management. Two separate working groups were assigned responsibility for reengineering the headquarters structure. The first was to look at NDHQ and reengineer it to become the Strategic headquarters of the CF and DND. The second working group was to reengineer the “Operational Level” headquarters of the CF. The terms “strategic” and “operational” were employed to describe the headquarters in connection with the three levels of war (strategic, operational and tactical,) that had recently been embodied into CF doctrine. Imposed on both headquarters working groups was the requirement to reduce the overall headquarters strength of personnel by 35 to 50 per cent.¹⁵ Also directed was the move of the Commanders of the Commands with their staffs to Ottawa where they became embodied within NDHQ as the Environmental Chiefs of Staff.

¹⁴ I

The Operational Level HQ WG began with an idealistic vision:

“To propose a headquarters structure which will provide for effective and efficient operational level management and command and control of the CF consistent with MCCR vision 97”¹⁶

To achieve this vision, six guiding principles were adopted of which three stand out as pertinent to this paper:

“The operational headquarters structure is to be reengineered without restriction to current organizational structures or operating procedures.

Functions will be relocated to the appropriate level.

The same structure will be used in peace, crisis and transition to war.”¹⁷

At their first meeting the Working Group reviewed the existing structure and identified ongoing proposals. The Navy was in the process of reassigning ships and headquarters staff to establish reasonably equal capabilities on each coast. This was a significant change for the Navy that, for years, had much more robust forces in the Atlantic with the Pacific Fleet being concerned more with training than operations. With

¹⁶ Mason, Lynn Gordon and Crabbe, Raymond, *A Centralized Operational Level Headquarters*. Ottawa: 2000. p 8.

¹⁷ *Ibid.* p 9

this background there was little disagreement that Maritime Forces Atlantic (MARLANT) HQ and Maritime Forces Pacific (MARFAC) HQ should remain as two operational level HQs.

The working group reviewed the four-area structure of the Land Force and decided all existing responsibilities could be met more effectively through a two-area structure. Countering this was a strong desire by the Land Force Commander to retain the four-area structure and the belief of the working group that removing a HQ from Quebec would not be accepted.

The Air Force was already in the process of combining Fighter Group and Air Transport Group to create Air Combat and Mobility Group with one HQ. Originally, Maritime Air Group and 10 Tactical Air Group were to remain in existence however continued pressure to cut personnel resulted in a complete amalgamation of the four Groups to become 1 Canadian Air Division/Canadian NORAD Region with a HQ located in the old Air Command HQ building in Winnipeg.

In the final analysis, five options were presented with “The Commands” proposals being selected. In this, the Navy and Army would retain the same structure but would find some personnel cuts internally. The Air Force completed the group amalgamation as noted above with a limit imposed on the size of the headquarters to ensure the overall reduction target would be achieved. One significant change to the Army structure was that the 1st Canadian Division Headquarters located in Kingston was to be also designated

as the deployable Canadian Forces Joint Forces Headquarters (JFHQ). Since then, this organization has continued to evolve into today's Joint Operations Group.

Outside the purview of the operational level Working Group was the staff supporting the Deputy Chief of the Defence Staff (DCDS). Although working at the strategic level, the DCDS and his staff, on behalf of the CDS, were also responsible for the operational command and control of all international operations and for complex domestic operations.¹⁸ This retention of significant operational level functions within the NDHQ DCDS staff is indicative of the missing essential aspect of this whole process - a clear definition of what the strategic and operational functions that were to be performed at each level of headquarters. As such each headquarters had, and continues to have, significantly different capabilities. In a report related to the MCCRT process conducted by retired VAdm Lynn Mason and LGen Raymond Crabbe, the authors reviewed the work of the Operational Level HQ team and noted this deficiency: "There is no indication, however, that the Project Team was able to complete the previously intended detailed work, such as the role of operational headquarters, the number of personnel assigned to each function, the identification and grouping of the processes, information technology requirements and the impact of a revised headquarters structure on then current joint doctrine. Notwithstanding, if it was completed, it seemed to have had little bearing on the options that were conceived and presented for decision."¹⁹ As a consequence, today's CF has nine identified operational level headquarters eight of which are based on the principal operational formations; Maritime Forces Atlantic

(MARLANT) HQ, Maritime Forces (Pacific) HQ, Land Forces Western Area HQ, Land Forces Central Area HQ, Quartier General Secteur Quebec de la Force Terrestre, Land Forces Atlantic Area HQ, 1 Canadian Air Division/ Canadian NORAD Region HQ and Canadian Forces Northern Area. In addition to these formation - based headquarters, the Joint Operations Group, also referred to as the Joint Headquarters (JHQ), located in Kingston, Ontario is considered an operational level headquarters. Despite their identification as part of the strategic headquarters, the DCDS staff in NDHQ performs the operational level command and control of most current CF operations. Before proceeding with an assessment of the effectiveness of this structure it should be noted that several other studies on command and control of the CF have focused on the strategic level. For an overview of the relevant reports and their conclusions see Bland and Maisonneuve.²⁰

Measuring The Command And Control Effectiveness Of A Headquarters Structure?

In the many studies resulting in changes to the CF's C2 structure over the years the common reasons presented for change have been improved efficiency, better management and reduced numbers of headquarters personnel. As such the measure of success has always been portrayed in dollar and/or personnel savings. Not until the MCCRT Operational Level Headquarters Working Group stipulated "effective command" in their vision statement was there any sense that command of operations was

¹⁸ *Joint Doctrine for Canadian Forces Joint and Combined Operations*. Ottawa: Department of National Defence, 1995 and *Canadian Forces Operations*. Ottawa: Department of National Defence, 2001. This role was first introduced in *Joint Doctrine* in 1995. *CF Operations* replaced *Joint Doctrine* in 2000 and continues to state the same role.

¹⁹ Mason, Lynn Gordon and Crabbe, Raymond. p 10.

an important role of the headquarters structure. Throughout all of the studies conducted since 1964, the closest statement that can be found as a possible criterion to measure the effectiveness of a command and control structure originated with the Glassco Commission as the McGill principle and was reiterated by the MCCRT as “the same structure will be used in peace, crisis and transition to war.”²¹ If the structure as a whole is being measured, and not each individual headquarters, the MCCRT also offered the principle that “Functions will (should) be relocated to the appropriate level.”²² Both of these principles can be assessed with a simple yes or no decision matrix. The only subjective assessment occurs when determining if functions are located at the correct level as the CF has no comprehensive description of what functions should be performed by the strategic and operational level headquarters. As attempting to completely identifying a comprehensive listing of functions is beyond the scope of this paper, the assessment will focus on where there is an obvious duplication of function between headquarters.

More difficult than assessing either of the above criteria, is the task of measuring the relative effectiveness of a headquarters structure to command and control operations. *Canadian Forces Operations* defines Command as “the authority vested in an individual of the armed forces for the direction, coordination, and control of military forces” while control is “that authority exercised by a commander over part of the activities of subordinate organizations, or other organizations not normally under his command,

²⁰ Bland, Douglas and Maisonneuve, Michel. *National Defence Headquarters Structure for Command: A Conflict of Ideas?* Kingston: Royal Military College, 2001.

²¹ Originally identified as the McGill principle because it was identified by Air Vice Marshall McGill in the Glassco Commission, this wording was used by the MCCRT Operational level headquarters working group.

²² Mason, Lynn Gordon and Crabbe, Raymond. p 9.

which encompasses the responsibility for implementing orders or directions. All or part of this authority may be transferred or delegated.”²³ From these definitions it is clear that current Canadian doctrine considers command and control as levels of authority. This fits very well with follow-on definitions of full command, operational command, operational control etc as these all describe levels of authority granted to commanders and they provide the common baseline in the transfer of authority between commanders in a joint or combined force. These definitions, however, do not lend themselves to a measure of effectiveness.

Ross Pigeau and Carol McCann, in their study *Re-conceptualizing Command and Control*²⁴, offer new definitions of command and control as well as a model for measuring the effectiveness of someone to command and control. Their study began with “the intention to develop an internally consistent set of command and control concepts that would form the framework for a uniquely Canadian research program.”²⁵ While their determination to use a uniquely Canadian approach has the risk of establishing conclusions not applicable or accepted outside of Canada their work certainly provides a sound foundation on which the current CF headquarters structure can be measured and, on which, comparisons can be made with other options.

²³ *Canadian Forces Operations*. p GL-E-2

²⁴ Pigeau, Ross and McCann, Carol. “Re-conceptualizing Command and Control.” *Canadian Military Journal*, Vol 3, No 1 Spring 2002. p 3.

²⁵ *Ibid.* p 3.

During their study of what forms the essence of command and control during operations, Pigeau and McCann formulated the following definitions:

“Command: the creative expression of human will necessary to accomplish the mission.

Control: those structures and processes devised by command to enable it and to manage risk.”²⁶

To measure how well someone performs the function of command and control, Pigeau and McCann identified the three factors of competency, authority and responsibility as being those factors that influence the final result. Each factor was then subdivided into specific aspects. Within competency, they considered a person's physical, intellectual, emotional and interpersonal abilities as all contributing to an overall assessment of their competency. Pigeau and McCann divide authority into legal authority and personal authority. While legal authority is clearly established through a variety of orders and regulations within the CF, personal authority is described by Pigeau and McCann as “that authority given informally to an individual by peers and subordinates.”²⁷ The third factor, responsibility, is subdivided into extrinsic responsibility and intrinsic responsibility. Pigeau and McCann associate extrinsic responsibility with “the degree to which an individual feels accountable both up to

²⁶ Ibid. p 12.

²⁷ Ibid. p 26.

superiors and down to followers.”²⁸ Intrinsic responsibility is “the degree of self-generated obligation that one feels towards the military mission.”²⁹

To describe the interrelationship of competency, authority and responsibility, Pigeau and McCann use a cube model they call “CAR”³⁰ that depicts the entire space of command capability. By situating an individual’s measure of competency, authority and responsibility within the cube one can describe the overall effectiveness of that individual to command. This model recognizes that having a low level of competency is not in itself a bad thing as long as the authority and responsibility given to the individual or organization is in harmony with their level of competency. Pigeau and McCann do, however, identify the risks that occur when an individual’s competency falls below the level commensurate with the assigned authority and responsibility. Through the cube model it is clear that when all three factors are in balance, a person can perform within the “balanced command envelope” ranging from highly effective when a high degree of each factor is present, to minimally effective when competency, authority and responsibility are all assessed to be low. The cube model also shows that a large imbalance within the three factors will lead to “compromised command capability” ranging from “dangerous command” to “ineffectual command.”³¹ Although Pigeau and McCann refer to an individual’s capability, the same model can be used to assess an organization. By employing the CAR model of Pigeau and McCann, as well as the two principles of maintaining the same structure in peace and war and allocating the right

²⁸ Ibid. p 30.

²⁹ Ibid. p 30.

³⁰ Ibid. p 31.

³¹ Ibid. p 36.

functions to the right headquarters, we have a framework for assessing the effectiveness of the Canadian Force's command and control structure.

Assessing Today's Structure

The current headquarters structure of the CF can be portrayed pictorially with NDHQ at the strategic level with the already noted nine "operational level" headquarters in a line below NDHQ. As noted in *Canadian Forces Operations* the Formation based headquarters are responsible for routine operations and limited domestic contingency operations. The role of the DCDS staff within NDHQ and the JHQ are not so clear. *Canadian Forces Operations* does state "the planning and control functions of NDHQ in operations should be confined, as far as practicable, to the strategic level, leaving operational activities to the Task Force Commander."³² However, both *Canadian Forces Operations* and *B-GG-005-004 AF-004, Force Employment*³³ have several references to the DCDS staff directly providing command and control of complex domestic operations and international operations. The role and composition of the Joint Operations Group (JOG) also adds confusion to the command and control structure. Although identified in *Canadian Forces Operations* as being responsible "to plan, organize and direct the conduct of international contingency operations" and deploy with the operational forces, the JOG is minimally manned and requires augmentation to deploy and sustain even a

³² *Canadian Forces Operations*. p 1-8.

³³ *Force Employment*. Ottawa: Department of National Defence, 1998.

vanguard headquarters capability.³⁴ With this limited manning, the JOG cannot possibly assume the role as the operational level headquarters for all international operations.

Given the contradictions evident in these overlapping responsibilities it is clear that the current structure meets neither of the initial two criteria. The requirement to assign command and control responsibilities to NDHQ or the JOG for international operations or when domestic operations become complex, immediately defies the idea of employing the same structure during peace, crisis and war. The same requirement to elevate command and control to NDHQ also indicates that significant operational level functions are being performed by NDHQ, the strategic headquarters, contrary to the principle of locating functions at the correct level.

Assessing the current structure against Pigeau and McCann's CAR model offers further insight into the problems being experienced today. The formation - based headquarters of the three services, MARLANT, MARPAC, 1 CAD/CANR and the four Land Areas will be considered as a group as the critical elements of each are similar. When considering competency, it is clear that the Formation based headquarters have both the physical (resources) and intellectual (required knowledge among the staff) capabilities to perform the operational level command and control of routine operations assigned to their subordinate formations and units. This is the role these headquarters were designed to perform. Since their routine operations, and regular readiness exercises, include international deployments, it can be expected that these headquarters could also

³⁴ According to the *Canadian Forces Joint Operations Group* information booklet the JOG has a core staff of 130 but requires primary augmentation to man a vanguard headquarters and would require general augmentation to mount a headquarters for a main

easily assume greater responsibility within single service operations. This strength in single service operations, however, creates a weakness in joint operations. Despite some capability due to routine working with other services, in general their capability to command and control joint operations is very limited. The difference in capability between single service and joint operations is so large that their competency can be assessed separately as high in single service operations and low in joint operations.

The authority and responsibility of the formation based headquarters can be assessed together as both of these aspects depend more on the formal criteria of legal authority and extrinsic responsibility than on the more personality driven criteria of personal authority and intrinsic responsibility. *Canadian Force Operations* clearly assigns authority and responsibility for routine operations and limited domestic operations to the formation based headquarters. To this extent these headquarters have high authority and responsibility; however, the DCDS staff keeps authority and responsibility for more complex operations, still within the competency range of these headquarters. For that reason the level of authority and responsibility of the formation based headquarters is assessed as moderate.

With a competency rating ranging from low to high and authority and responsibility both assessed to be moderate, the Formation based headquarters can be assessed to be midrange within the balanced command envelope.

Evaluating the JOG for competency based on intellectual capability is difficult. With its limited manning, ensuring a balance of experience and expertise across the breadth of CF capabilities would require the very careful assignment of personnel. To counter that, the JOG conducts intensive training of its staff to ensure internal planning processes are as effective as possible. With its clear mandate on operations and focused training, the intellectual competency of the JOG is evaluated as high. Its physical capacity, however, does not match this. Requiring primary augmentation to support a vanguard deployment and general augmentation to deploy as a full Joint Task Force Headquarters, the JOG is very limited in its ability to meet its assigned role. Combining a high standard of intellectual capability with a limited physical capacity, the overall assessment of the JOG is that it has moderate competency.

The JOG is in the un-enviable position of having significant “potential” responsibility expressed in *Canadian Forces Joint Operations Group* as “On order, the Joint Operations Group will field a deployable, operational level Joint Task Force Headquarters for domestic or complex international missions up to and including mid-intensity war fighting.”³⁵ Although the JOG may never deploy for the worst-case scenario, the constant requirement to “be prepared” combined with frequent lesser demanding deployments results in a high level of responsibility assigned to the JOG. The level of authority does not match this responsibility. Although purposely designed to assume some responsibility from the DCDS NDHQ staff, the authority remains within NDHQ to assign command and control functions to the JOG or retain them within the DCDS staff. Although the JOG has potentially high authority, the complete dependency

on NDHQ suggests that low authority is the most accurate assessment. This combination of moderate competency, high responsibility and low authority indicates the JOG is currently within the ineffectual command quadrant of the CAR model.

In evaluating the DCDS staff of NDHQ, two separate evaluations must be done. If the MCCRT principle of assigning functions to the correct level had been followed, NDHQ would be a purely strategic headquarters and therefore the DCDS staff would provide the strategic command and control of all operations. However, while noting the strategic function of NDHQ, *CF Operations*, states that the DCDS staff is also responsible for the operational level command and control of international and complex domestic operations.³⁶ This double tasking of the DCDS staff has led to several criticisms of their capability to perform well as either the strategic or the operational level staff. In a *Lessons Learned Analysis of Command and Control During Operations*, the identified problems include “In many recent operations there was no written planning guidance from the CDS or the DCDS.”³⁷ Furthermore the report notes that as the CDS has insufficient staff to support him in his command role “the selection of the aim of the operation ...sometimes receives little attention.”³⁸ While the author believes that drafting initial planning guidance for the CDS should be one of the main tasks of the DCDS staff, the quote above suggests, at least some of the DCDS staff see the strategic guidance to be the responsibility of some other staff. Therefore, rather than focusing on strategic level planning the DCDS staff quickly focuses on the operational level of initiating deployment as soon as possible. As a previous senior officer of the DCDS staff states, he willingly

³⁵ *Canadian Forces Joint Operations Group*. p 5.

³⁶ *Canadian Forces Operations*. p 1-8.

accepted ambiguous aims because “if we waited until there was a clear aim we would arrive late.”³⁹ While this focus on rapid deployment may look good in the press, neglecting the strategic function of establishing an aim can adversely affect the deployed units, also noted in the *Lessons Learned Analysis* paper during OP DETERMINATION “there was no agreed mission for 435 Squadron even after the unit arrived in theatre.”⁴⁰

The above comments would normally lead to the conclusion that the DCDS staff has a low competency for strategic command and control. However, in the experience of Col Dan Gosselin, while deployed as the Chief of Staff for the HQ Joint Task Force South West in Tampa, Florida, the responsibilities of each headquarters were clear and the DCDS staff was always responsive to the demands of the deployed headquarters.⁴¹ This dichotomy in perceived performance suggests that personal competency of some staff, in particular the lead staff officer for a particular operation, can affect the overall effort. It can be assessed therefore, that the current problems identified in the *Lessons Learned Analysis* are a consequence of lack of consistent training and direction.⁴² As a consequence of the differing opinions in performance of the DCDS staff working at the strategic level, their strategic competency level is assessed as moderate.

Criticism of the DCDS staff performance is not limited to their strategic role. The Lessons learned Analysis also includes several examples of poor effectiveness operating at the operational level. External to the DCDS staff, there are two common beliefs.

³⁷ *Command and Control, A Lessons Learned Analysis*. An internally produced report of the Deputy Chief of the Defence Staff, p 6.

³⁸ *Ibid.* p 7.

³⁹ Discussion with a previous senior officer recently assigned to the DCDS staff.

⁴⁰ *Command and Control, A Lessons Learned Analysis*, p 8.

⁴¹ Gosselin, Col D. Personal interview. 30 October 2002.

Firstly; the DCDS staff tries to over control operations, interfering with, rather than supporting, the other headquarters staff, and secondly, the DCDS staff always requires the help of the formation based headquarters as the DCDS does not have the staff resources required to provide complete command and control services at the operational level.⁴³ Whether accurate or not, these findings clearly indicate there is a perceived duplication of responsibility and capability among the different headquarters. While the DCDS staff may depend on the other operational headquarters to complete much of the initial planning for an operation, it is also clear that the DCDS staff is the only headquarters with the existing joint staff and resources to monitor and direct joint operations. Therefore, the DCDS staff is assessed to have moderate competency to command and control operations at the operational level.

When evaluating the level of authority and responsibility of the DCDS staff, one must also consider both the strategic and operational levels. It is clear that at the strategic level, the DCDS staff has both the ultimate authority and responsibility to act on behalf of the CDS. As already noted this is also in keeping with the McGill and the MCCRT principles that the structure should not change during peace crisis and war and that this is, in fact, the correct level for strategic guidance. Therefore, the DCDS staff is assessed to have high levels of both authority and responsibility for strategic command and control. At the operational level, however, the change in responsibility and authority with the

⁴² Ibid. p 29. One of the two main conclusions of the analysis is that most of the work is done by Majors and Captains without previous training in operational planning.

⁴³ Informal poll. The author asked more than twenty officers with experience in operations in operational level headquarters from all three environments and the JOG. Every one asked, expressed the belief that the DCDS staff depends on the environmental and formation based headquarters to do the operational planning while insisting authority for final decisions remains with the DCDS staff.

complexity of an operation degrades the assessment in both aspects to a level of moderate.

With each headquarters evaluated for competency, authority and responsibility on an individual basis, it can be seen that the same factors that affect individual levels also affect the structure as a whole. With respect to the McGill principle, the current structure clearly fails to meet the intent. While the structure does not change, authority and responsibility for command and control changes depending on the type and or size of an operation. The split responsibility of the DCDS staff for all strategic guidance and operational level command and control also based on the circumstances fails to meet the MCCRT principle that all functions should be clearly delineated between headquarters levels. While high levels of competency exist collectively they are not distributed in line with the authority and responsibility. The division between competency, authority and responsibility as well as the requirement to change the reporting chain of command depending on circumstances results in an overall low effectiveness assessment. This is borne out in the Lessons Learned Analysis that concludes that the CF command and control structure is not well suited to controlling joint operations and therefore **“The formation of an operational level HQ, capable of controlling all CF operations needs to be considered.”**⁴⁴ (Emphasis in original text)

⁴⁴ *Command and Control Analysis*. p 29.

Do Mason And Crabbe Have The Answer?

One option that received only a cursory review by the MCCRT in 1995 was the idea of a single operational level headquarters that would direct all operations of the CF. When introduced as a concept to be considered, the team leader noted that the DCDS, VAdm Mason, had directed consideration of the single headquarters concept although no commander of a command was expected to accept it. Assuming it was already an unacceptable solution and facing limited time, the working group identified the major advantages and disadvantages of this option and then discounted it. In their analysis, five years later, VAdm Mason and LGen Crabbe acknowledge all of this. “Clearly, any radical departure from the status quo was going to be met with a lot of skepticism and strong resistance...until it had been thoroughly staffed and the major hurdles addressed with the best solutions possible. There was neither the time for the Project Team to do that, nor was there a receptive audience of senior decision-takers if it had been done.”⁴⁵

Although initially directed for consideration as a means to improve command and control during operations, in 2000, the Vice Chief of the Defence Staff (VCDS), VAdm Garnett, directed another analysis from the perspective of resource reductions. With the NDHQ staff now busier than ever, the review was contracted to retired VAdm Mason and LGen Crabbe. The same VAdm Mason who had once proposed this model for consideration was now given the chance to conduct a more detailed study of the idea. Unfortunately, their mandate was limited to reviewing the concept of eliminating all

current operational level headquarters and creating one central operational level headquarters collocated with NDHQ. It was then to be compared against the current model. The one exception to this was the retention of the Joint Operations Group, based in Kingston, which was to be retained as a deployable headquarters for operations.

Prior to commencing their comparison of models, VAdm Mason and LGen Crabbe began by describing a proposed structure of a centralized headquarters. In their model, the DCDS would be the Commander of the Canadian Forces Joint Headquarters. The headquarters staff would be organized in three main sections; Domestic Land Operations, Domestic Air and Maritime Operations and International Operations. By necessity the headquarters “would be located in Ottawa to facilitate the rapid and complete exchange of information, intelligence, direction and views that can only be achieved by face to face meetings, direction, briefs and joint planning teams involving both the strategic and operational levels.”⁴⁶ It is interesting to note, that while the authors considered it essential that the centralized headquarters had to be in Ottawa, they also recommended against the notion of expanding the DCDS staff to subsume the operational functions of the CFJHQ because that option “would further dilute and diminish the focus of the operational level inside the necessary political-military interface that characterizes NDHQ.”⁴⁷

To conduct their comparison, VAdm Mason and LGen Crabbe created a matrix of ten factors they considered important for the headquarters. Each one was assessed

⁴⁵ Mason, Lynn Gordon and Crabbe, Raymond. p 13.

⁴⁶ Mason, Lynn Gordon and Crabbe, Raymond. p 24.

subjectively and rated as to which of the two models better met the stated factor. Each model was found to be better in five of the considered factors. The general comments indicate that the centralized model was found superior for command and control during operations; however, the current model was found superior for force generation, regional representation and leadership. In their final analysis, VAdm Mason and LGen Crabbe recommended, “the centralized model as defined in this project should not be adopted”⁴⁸ because it failed to recognize the necessity of a command and control structure for force generation.

VAdm Mason and LGen Crabbe did not have the Pigeau and McCann CAR model to measure effectiveness and they had very limited scope in which to develop other models. Nevertheless they did introduce a “Third Option”⁴⁹ in which a centralized CFJHQ would be created to command and control operations while some other headquarters would be retained to command and control the force generation activities of the Environmental Commanders. VAdm Mason and LGen Crabbe were prohibited from an analysis of the Third Model by the assigned scope of their mandate; however, they did recommend it be further developed and evaluated. Rather than fully developing this option before comparing it against the CAR model, a few changes are recommended to address VAdm Mason and LGen Crabbe’s main concerns.

Firstly the DCDS should not command the CJFHQ as presented; another officer should be placed in command of the CFJHQ and therefore he, or she, would provide the

⁴⁷ Ibid. p 53.

⁴⁸ Ibid. p 58.

operational level focus to all CF operations. The role of the DCDS is lead the strategic operations staff within NDHQ and therefore the strategic functions of operations would not become diluted by the urgent demands of operational planning. Secondly, within the centralized CFJHQ, the three main divisions should be organized along service lines with the head of each section becoming the de facto component commanders of any CF operation. Finally the Air Force and Navy should create an organization such as the Army's Land Force Doctrine and Training System whose mission is "To plan and manage the intellectual development and training of the Army."⁵⁰ This would create a parallel structure among the three services responsible, in general, for individual training and education that would complement the operations focus of the CFJHQ.

Considering the centralized model, with these changes, against the Pigeau and McCann CAR model, it is assessed that a high level of competency would be achieved at both the strategic and operational levels. Authority would be centralized for operations and decentralized for force generation thereby supporting the needs of both operations and force generation. The overall structure, with the inclusion of Component Commanders within the headquarters, would establish clear lines of responsibility achieving a high level within the CAR model. This structure would also fully abide by the McGill principle of maintaining the same structure during peace, crisis and war as well as the MCCRT principle of assigning the right functions to the right level. Therefore, within the CAR model, the centralized model of VAdm Mason and LGen Crabbe, with some minor changes, offers the potential for the headquarters structure to

⁴⁹ Ibid. p 58.

⁵⁰ <http://armyapp.dnd.ca/lftds/mainasp>.

operate within the highest possible maximal balanced command. Clearly, the Mason Crabbe report is worth another look.

Conclusion

In the Command Era described by Douglas Bland, the Navy, Army and Air Force each had structures that provided effective command and control of their forces. However, since 1964, the command and control structure of the CF has undergone several changes based on improved management practices for a peacetime armed forces rather than command effectiveness during operations. While the relative stable circumstances of the Cold War may have masked the overall effect of this, the Gulf War in 1990 highlighted the command and control shortcomings of the Canadian Forces in combat operations outside of a NATO structure.

The most recent significant change to the CF command and control structure occurred under the direction of the MCCRT. Although ostensibly tasked to completely reengineer the CF command and control structure, the time pressure and overriding criteria to reduce resources meant the overall review became restricted to what options could be achieved within the time permitted. At the same time, the MCCRT introduced the idea of the three levels of operations; strategic, operational and tactical into the organizational structure.

Since then, CF operations have continued to grow in number and complexity and, despite some evolutionary changes, no complete assessment of the effectiveness of the

command and control structure has occurred. Part of the problem has been there have been no common criteria to measure command and control effectiveness. The many reviews from the Glassco Commission of 1961 to the MCCRT report of 1995 primarily employed business models and resource costs to measure effectiveness.

Two studies completed within the last two years offer a new perspective to the problem. Although discarded quickly by the MCCRT, the idea of a centralized operational level headquarters was more completely analyzed by VAdm Mason and LGen Crabbe in 2000. Then, in 2002, two Canadian researchers, Ross Pigeau and Carol McCann published a report that included a model by which the effectiveness of command and control can be measured. Evaluating today's structure through Pigeau and McCann's model highlights continuing limitations resulting in an overall assessment of moderate effectiveness. VAdm Mason and LGen Crabbe's report, although specifically limited in scope, offers a structural model that addresses most of today's limitations and which, when measured by Pigeau and McCann's model, clearly demonstrates the potential for a high level of effectiveness.

As the pace and complexity of operations is unlikely to diminish in the near future the CF will undoubtedly look for ways to become more effective. Pigeau and McCann have provided the tools by which command and control effectiveness can be measured and the Mason Crabbe model provides an excellent starting point for further development.

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